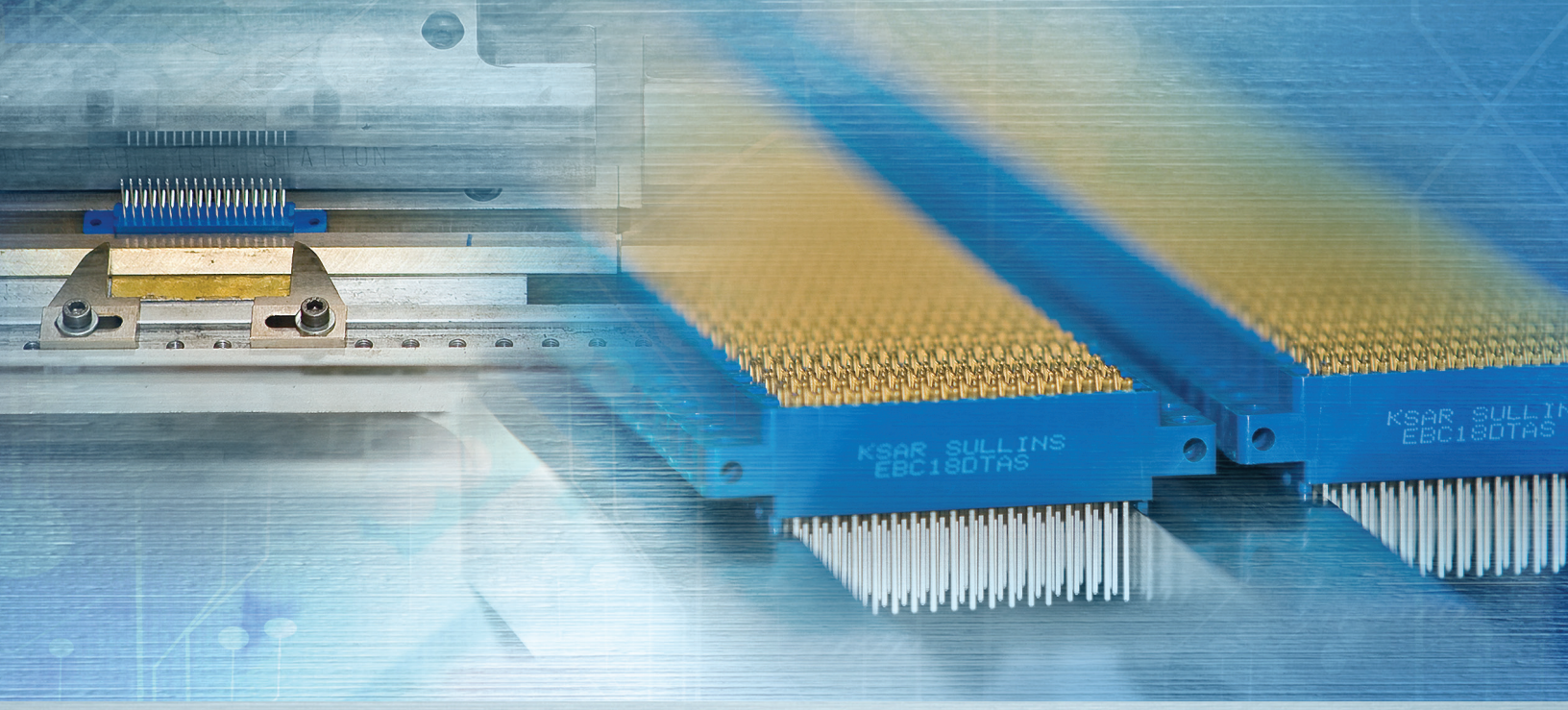
2019 CATALOG

SULLINS

CONNECTOR SOLUTIONS

PROVIDING INTERCONNECT SOLUTIONS WORLD WIDE FOR OVER 40 YEARS



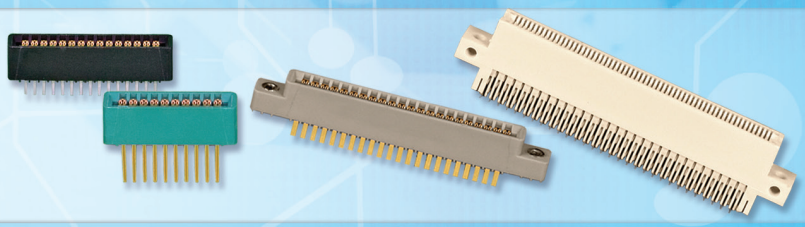
www.sullinscorp.com

Board-to-socket

Test Sockets

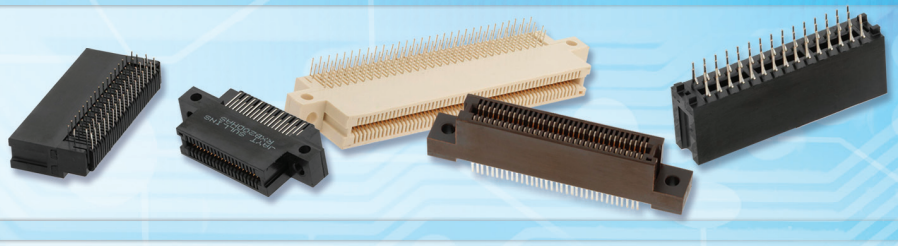
Board-to-board

Hi-Temp Card Edge Connectors



Board-to-board

Hi-Density Card Edge Connectors



Board-to-board

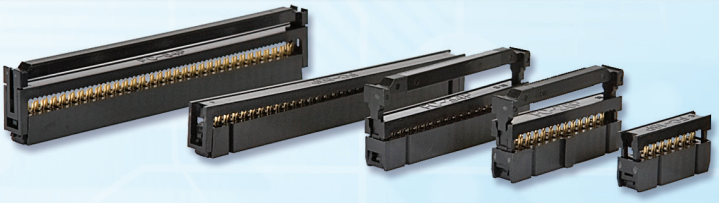
Card Edge Connectors

Board-to-board

Headers & Shunts

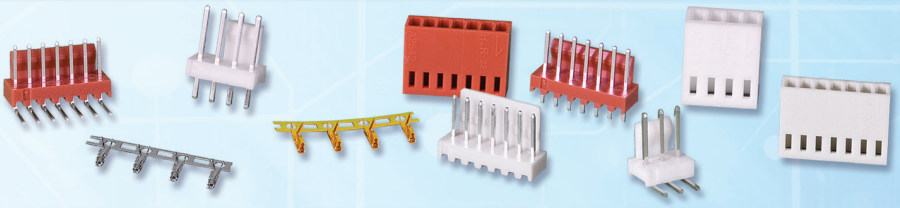
Board-to-cable

IDC Sockets & Dip Plugs



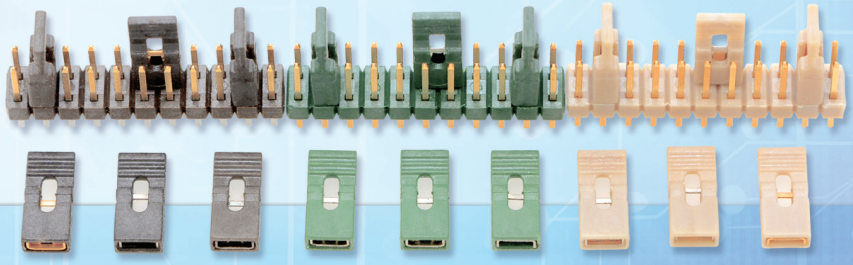
Board-to-wire/Wire-to-wire

Wire-to-board Connectors



Input/Output

Hi-Temp Headers & Shunts



Sullins' Capabilities

Sullins Connector Solutions is the leader in developing and delivering reliable, cutting-edge connectors for diverse applications and industries worldwide. Headquartered in San Marcos, California, and privately held, Sullins provides the largest selection of 100% RoHS, UL/CUL approved card edge connectors and headers in the industry. Our high-level, high-density and high-temperature connectors are specifically designed for challenging applications used by leading manufacturers and engineers all over the world.

Quality

- We want to exceed customer expectations at every level of service provided
- Continuous improvement on all aspects of operations
- ISO 9001 and AS9100 certified!
- RoHS compliance on all parts
- Quality control on all raw materials and finished parts based on Statistical Process Control (SPC) methods

Product Development

- We offer the largest variety of card edge connectors
- Continuous research & development of new connectors to meet new and unique demands
- Hundreds of new product variations created every year

Speed & Flexibility

- Most order shipped within 5 business days
- Small orders never a problem
- Same-day response to customer inquiries and Request-for-Quote (RFQ)

Manufacturing

- In-house molding of various plastic materials, including thermoplastic, high temperature Polyamide and Polyphenylene Sulfide, etc
- Full range of precision machining tools to support quick tooling and automated production
- Quick change tools allow for small runs within production runs
- Automated systems to allow efficient product assembly

Custom Connector Solutions

- In-house design and custom molding capabilities to support quick turn-around time
- Extensive connector design expertise to assist with design analysis and prototype development
- Advanced connector design tools and quick prototyping for design simulation
- Modular tooling allows for quick switch from prototye to production

Global Sales & Services

- Partnerships with a network of strategically located distributors for more efficient global sales and services

Sullins Card Edge

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PART NUMBER OPTIONS 7

High Density Card Edge

1.00 mm [.039″] Contact Centers

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21.84 mm [.860″] Profile, Right Angle....10
11.25 mm [.443″] Profile, PCI Express, Dip Solder....12
10.25 mm [.404″] Profile, PCI Express, Card Extender for Straddle Mount....14
10.90 mm [.429″] Profile, PCI Express, SMT with Posts....16

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for .031″ [0.79 mm], .062″ [1.57 mm] or .093″ [2.36 mm] Mating PCB....20
.915″ [23.24 mm] Profile, Right Angle
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Sullins Card Edge

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.156″ [3.96 mm] Contact Centers

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Sullins Headers

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Sullins Wafers

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.100˝ [2.54 mm] Contact Centers

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Micro Plastics Brand Card Edge

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Female Card Edge, .150″ [3.81 mm] Contact Centers

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GENERAL SPECIFICATIONS

RoHS COMPLIANT

RoHS COMPLIANT

All parts are currently manufactured with recommended materials to meet RoHS standards. All contacts have 50u" of nickel underplate, and a large selection of plating options: Pure tin matte, overall gold, or selective gold plating. For operating/processing temperature parameters, visit the RoHS section of our website, or refer to page 7 of this catalog.

MATERIALS (Consult factory for materials not shown.)

Insulator

- PBT, Valox*, Thermoplastic Polyester
- PPS, Ryton*, Polyphenylene Sulfide
- PEEK, Polyetheretherketone
- PA9T, High Temperature Polyamide

Contacts

- Phosphor Bronze (Standard)
- Beryllium Copper
- Beryllium Nickel
- Spinodal**
- Brass

Plating

Plating is Lead Free with Nickel Underplate, offered in Gold (Selective or Overall) and Pure Tin Overall.

UL/CUL File Number: E64287

CAGE CODE: 54453

ECCN: EAR99

INTERNATIONAL HARMONIZED CODE: 8536.69.4040

MECHANICAL

Board Insertion Force: 16 oz maximum per contact pair using .062" [1.57 mm] thick steel test blade.
Board Withdrawal Force: 1 oz minimum per contact pair using .062" [1.57 mm] thick steel test blade.
Special Insertion/Withdrawal forces available upon request.

ELECTRICAL

Insulation Resistance: 5,000 Megohms

Contact Centers:	.039" [1 mm]	.050" [1.27 mm]	.100" [2.54 mm]	.125" [3.18 mm]	.150" [3.81 mm]	.156" [3.96 mm]
Operating Voltage:	225 VAC	300 VAC	700 VAC	750 VAC	850 VAC	950 VAC
DWV:	675 VAC	900 VAC	2100 VAC	2250 VAC	2550 VAC	2850 VAC

Current Rating: 1 to 5 Amp per contact

Contact Resistance: 30 milli Ohms maximum at rated current (May vary per product series***)

ENVIRONMENTAL

Solvent resistance: Perchloroethylene, Freon 113, Freon 11, Trichloroethylene

Operating Temperature:

PBT	-65°C to +130°C	Phosphor Bronze	-65°C to +125°C
PPS	-65°C to +200/220°C***	Beryllium Copper	-65°C to +150°C
PA9T	-65°C to +150°C	Spinodal**	-65°C to +200°C
PEEK	-65°C to +250°C***	Beryllium Nickel***	-65°C to +300°C

(Continuous temperatures, higher for short duration. Contact factory for details.)

* Or equivalent
** Consult factory for special soldering guidelines.
*** Consult factory for more details.

PART NUMBER OPTIONS

E B M 43 D RT H - Sxxx

MATERIALS (Insulator/Contact)

E = PBT & Phosphor Bronze
Operating Temperature: -65°C To +125°C
Processing Temperature: Wave only

R = PPS & Phosphor Bronze
Operating Temperature: -65°C To +125°C
Processing Temperature: 260°C Max. For 20 Sec.

G = PA9T & Phosphor Bronze
Operating Temperature: -65°C To +125°C
Processing Temperature: 260°C Max. For 20 Sec.

H = PBT & Beryllium Copper
Operating Temperature: -65°C To +125°C
Processing Temperature: Wave only

A = PPS & Beryllium Copper
Operating Temperature: -65°C To +150°C
Processing Temperature: 260°C Max. For 20 Sec.

J = PA9T & Beryllium Copper
Operating Temperature: -65°C To +150°C
Processing Temperature: 260°C Max. For 20 Sec.

M = White PA9T & Beryllium Copper
Operating Temperature: -65°C To +150°C
Processing Temperature: 260°C Max. For 20 Sec.

T = PPS & Beryllium Copper (Special, Consult Factory)
Operating Temperature: -65°C To +175°C
Processing Temperature: 260°C Max. For 20 Sec.

*F = PPS & Spinodal** (Consult Factory)
Operating Temperature: -65°C To +200°C

*C = PPS & Beryllium Nickel (Consult Factory)
Operating Temperature: -65°C To +200°C
Processing Temperature: 260°C Max. For 20 Sec.

W = PEEK & Beryllium Nickel (Consult Factory)
Operating Temperature: -65°C To +250°C
Processing Temperature: 260°C Max. For 20 Sec.
(Available with 'M' plating only.)

*Available with overall gold plating (S or M) only.
**Consult factory for special soldering guidelines.

CONTACT FINISH - RoHS Compliant

All platings are Lead Free and have .000050" Nickel underplate

Contact Surface	Termination
B = .000010" Gold	.000100" Pure Tin, Matte
C = .000030" Gold	.000100" Pure Tin, Matte
G = .000010" Gold	.000005" Gold
Y = .000030" Gold	.000005" Gold

Contact Surface	Overall Plating
S = .000010" Gold	.000010" Gold
M = .000030" Gold	.000010" Gold
E = .000100" Pure Tin, Matte	.000100" Pure Tin, Matte

Overall Tin only available in E, R & G material codes

CONTACT CENTERS

E = 1.00 mm [.039"]
B = .050" [1.27 mm]
K = .078" [1.98 mm]
*N = .079" [2.00 mm]
C = .100" [2.54 mm]
A = .125" [3.18 mm]
J = .150" [3.81 mm]
M = .156" [3.96 mm]

*Consult factory.

NUMBER OF CONTACT POSITIONS

See applicable specification page

READOUT

D = Dual
D = Dual Row/ Crimp to Center for Single Readout
F = Dual Edge
H = Half Loaded
M = Male Card Edge

Registered Trademarks

Sabic Innovative Plastics: Valox
Phillips 66: Ryton
Gardner-Denver Co.: Wire Wrap
RTP Compounder: PEEK
Sullins Electronics: Zero Lead Time
Sullins Electronics: Sullins
Underwriters Labs: UL
Ametek: Spinodal

MODIFICATION CODE (Consult Factory)

OMIT FOR STANDARD

MOUNTING STYLE

H = Clearance Holes, .125" [3.18 mm] Diameter
N = No Mounting
S = Side Mounting, .125" [3.18 mm] Diameter
I = #4-40 Threaded Insert
A = #4-40 Threaded Insert in Side Holes
F = Floating Bobbin
W = .430" Ears, Flush Mounting, .125" [3.18 mm] Diameter
D = .250" Ears, Flush Mounting, .125" [3.18 mm] Diameter
P = Clearance Holes, .142" [3.61 mm] Diameter
B = Open Card Slot
X = .430" Ears, Flush Mounting, #4-40 Threaded Insert
T = .250" Ears, Flush Mounting, #4-40 Threaded Insert
V = .250" Ears, Flush, Side Mounting, #4-40 Threaded Insert
Q = Straddle Mount
Z = .250" Ears, Flush, Side Mounting, .125" [3.18 mm] Diameter
R = Metal Board Lock

TERMINATION TYPE

Card Extender

HR = .050" & 1 mm Contact Centers
KR, KN, PN, PR = .025" [0.64 mm] Square Post

Dip Solder - High Profile

RS = .025" [0.64 mm] Square Tail, Loop Bellows
CS, PD, PF, PS, SC = .025" [0.64 mm] Square Tail, Hairpin Bellows
CK, TK = .025" [0.64 mm] Round Tail, Loop Bellows
CT, CW = .015" [0.38] X .025" [0.64] Tail, Hairpin Bellows
HH = .050" & 1 mm[.039"] Contact Centers
HL, HN = .050" Contact Centers
KS, KD = .025" [0.64 mm] Square Post, Cantilever

Dip Solder - Low Profile

SX, SU = Crimp to Center for Single Readout
RT, RK, RY = .140" [3.56 mm] Row Spacing
RX, RF, RU, RP = .200" [5.08 mm] Row Spacing
RJ = .250" [6.35 mm] Row Spacing

Eyelet

RE, TE, SE = Eyelet Tail

Press Fit

.200"[5.08 mm] Row Spacing	*.100"[2.54 mm] Row Spacing*
JB = .025" [0.64 mm] Sq. Post	JF = .025" [0.64 mm] Sq. Post
JC = .025" [0.64 mm] Sq. Post	JG = .025" [0.64 mm] Sq. Post
JW = .025" [0.64 mm] Sq. Post	JY = .025" [0.64 mm] Sq. Post
JX = .025" [0.64 mm] Sq. Post	JZ = .025" [0.64 mm] Sq. Post

Right Angle

TA, TB, TM = Loop Bellows
CA, CB, CC, PU = Hairpin
PB, PG, PE, PJ, PP = Hairpin
KA, KE, KU, KJ = Cantilever
HA, HB = .050" & 1 mm CC
RA, SA = Full Bellows

Cantilever

ET, EY = .100" CC Low Profile
YH = .050" CC Thru Hole
YR = .050" CC Card Extender
YF = .050" CC SMT
YY = .050" CC Right Angle
YS = .050" CC Thru Hole

Surface Mount

HF = Surface Mount, .050" & 1mm Contact Centers

Wire Wrap

RM = .025" [0.64 mm] Square Post, Loop Bellows
CM, MC, PM = .025" [0.64 mm] Square Post, Hairpin Bellows
KK = .031" [0.79 mm] X .062" [1.58 mm] Post
KL = .031" [0.79 mm] X .062" [1.58 mm] Post Twisted 90°
KM = .025" [0.64 mm] Square Post, Cantilever
WW = .045" [1.14 mm] Square Post

Bi-Level

LR = Card Extender
LT = Dip Solder
KB = Right Angle

Dual Edge

SL = Dual Edge

Male Card Edge

MW, MS = Dip Solder
MH = Stagger Dip Solder
MR, MN = Card Extender
MM = Wire Wrap
MA, MD, MJ, MK, MV, & MB = Right Angle

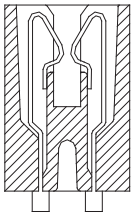
See page 143 for Micro Plastics brand part number options. **Specifications are subject to change without notice.**

1.00 mm [.039”] Contact Centers, 15.49 mm [.610”] Insulator Height, Dip Solder/Card Extender/SMT

SPECIFICATIONS

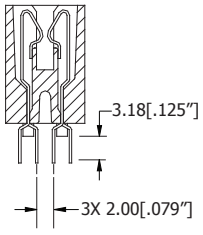
- Accommodates 1.57 mm ± 0.20 mm [.062” ± .008”] PC board
- PPS or PA9T insulator
- Molded-in key available
- 1 Amp current rating per contact for contacts fully energized
- Highly reliable high cycle hairpin bellow contacts
- UL Flammability Rating: 94V-0

READOUT

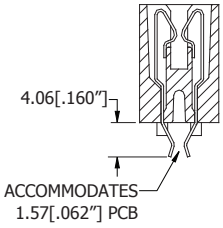


DUAL (D)

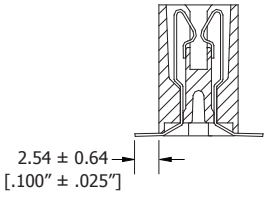
TERMINATION TYPE



STAGGERED DIP SOLDER (HH)

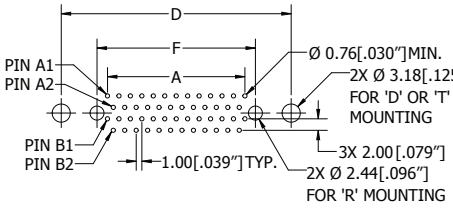


CARD EXTENDER (HR)

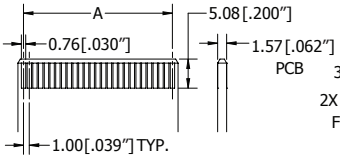


SURFACE MOUNT (HF)

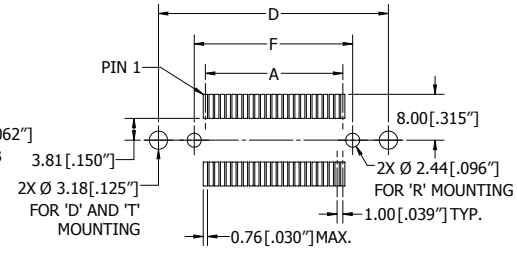
PCB LAYOUT



STAGGERED DIP SOLDER (HH)

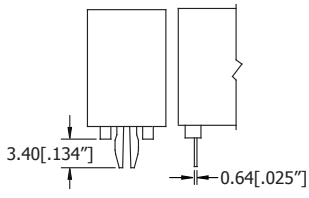


CARD EXTENDER (HR)

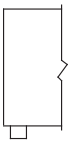


SURFACE MOUNT (HF)

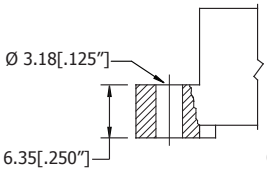
MOUNTING STYLE



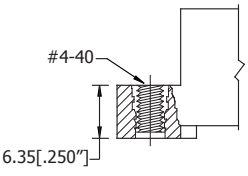
BOARD LOCK (R) (with no mounting ears)



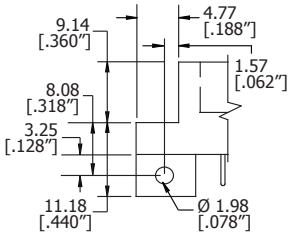
NO MOUNTING EARS (N)



FLUSH MOUNTING (D)



THREADED INSERT (T)



STRADDLE MOUNT (Q)

1.00 mm [.039”] Contact Centers, 15.49 mm [.610”] Insulator Height, Dip Solder/Card Extender/SMT

PART NUMBER OPTIONS

G B E 50 D HH D - Sxxx

MATERIALS (INSULATOR/CONTACT)
G = PA9T/Phosphor Bronze
R = PPS/Phosphor Bronze
J = PA9T/Beryllium Copper
A = PPS/Beryllium Copper
Refer to Page 7 for Operating/Processing Temperatures

CONTACT FINISH - RoHS Compliant
All platings are Lead Free and have .000050” Nickel underplate

	Contact Surface	Termination
B =	.000010” Gold	.000100” Pure Tin, Matte
C =	.000030” Gold	.000100” Pure Tin, Matte

CONTACT CENTERS
E = 1.00 mm [.039”]

MODIFICATION CODE (Consult Factory)
OMIT FOR STANDARD

MOUNTING STYLE (Opposite Page)
D = Flush Mounting
N = No Mounting
R = Metal Board Locks (HH & HF Termination Only)
T = Flush Mounting, #4-40 Threaded Insert
Q = Straddle Mount (HR Termination Only)*

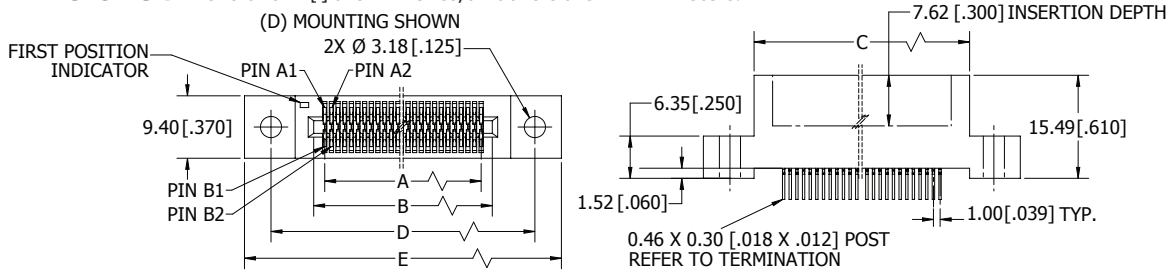
TERMINATION TYPE (Opposite Page)
HH = Staggered Dip Solder
HR = Card Extender
HF = Surface Mount

READOUT (Opposite Page)
D = Dual

NUMBER OF CONTACT POSITIONS
See Chart Below

DIMENSIONS

Dimensions in [ ] are in inches, all others are in millimeters.



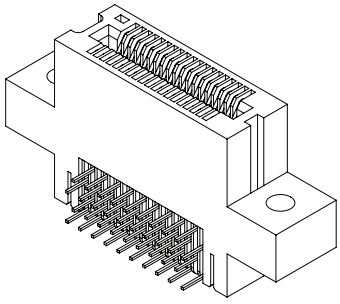
POSITIONS/ CONTACTS	MILLIMETERS						INCHES					
	A±0.13	B±0.13	C±0.38	D±0.25	E±0.51	F±0.25	A±.005	B±.005	C±.015	D±.010	E±.020	F±.010
02/04*	1.00	4.32	9.89	17.15	25.13	4.66	0.039	0.170	0.389	0.675	0.989	0.183
03/06*	2.00	5.32	10.89	18.15	26.13	5.66	0.079	0.210	0.429	0.715	1.029	0.223
04/08*	3.00	6.32	11.89	19.15	27.13	6.66	0.118	0.249	0.468	0.754	1.068	0.262
05/10	4.00	7.32	12.89	20.15	28.13	7.66	0.157	0.288	0.507	0.793	1.107	0.301
06/12*	5.00	8.32	13.89	21.15	29.13	8.66	0.197	0.328	0.547	0.833	1.147	0.341
07/14*	6.00	9.32	14.89	22.15	30.13	9.66	0.236	0.367	0.586	0.872	1.186	0.380
08/16*	7.00	10.32	15.89	23.15	31.13	10.66	0.276	0.407	0.626	0.912	1.226	0.420
09/18*	8.00	11.32	16.89	24.15	32.13	11.66	0.315	0.446	0.665	0.951	1.265	0.459
10/20	9.00	12.32	17.89	25.15	33.13	12.66	0.354	0.485	0.704	0.990	1.304	0.498
11/22*	10.00	13.32	18.89	26.15	34.13	13.66	0.394	0.525	0.744	1.030	1.344	0.538
12/24	11.00	14.32	19.89	27.15	35.13	14.66	0.433	0.564	0.783	1.069	1.383	0.577
13/26*	12.00	15.32	20.89	28.15	36.13	15.66	0.472	0.603	0.822	1.108	1.422	0.616
14/28*	13.00	16.32	21.89	29.15	37.13	16.66	0.512	0.643	0.862	1.148	1.462	0.656
15/30	14.00	17.32	22.89	30.15	38.13	17.66	0.551	0.682	0.901	1.187	1.501	0.695
16/32	15.00	18.32	23.89	31.15	39.13	18.66	0.591	0.722	0.941	1.227	1.541	0.735
17/34*	16.00	19.32	24.89	32.15	40.13	19.66	0.630	0.761	0.980	1.266	1.580	0.774
18/36*	17.00	20.32	25.89	33.15	41.13	20.66	0.669	0.800	1.019	1.305	1.619	0.813
19/38*	18.00	21.32	26.89	34.15	42.13	21.66	0.709	0.840	1.059	1.345	1.659	0.853
20/40	19.00	22.32	27.89	35.15	43.13	22.66	0.748	0.879	1.098	1.384	1.698	0.892
21/42*	20.00	23.32	28.89	36.15	44.13	23.66	0.787	0.918	1.137	1.423	1.737	0.931
22/44*	21.00	24.32	29.89	37.15	45.13	24.66	0.827	0.958	1.177	1.463	1.777	0.971
23/46*	22.00	25.32	30.89	38.15	46.13	25.66	0.866	0.997	1.216	1.502	1.816	1.010
24/48*	23.00	26.32	31.89	39.15	47.13	26.66	0.906	1.037	1.256	1.542	1.856	1.050
25/50	24.00	27.32	32.89	40.15	48.13	27.66	0.945	1.076	1.295	1.581	1.895	1.089
26/52*	25.00	28.32	33.89	41.15	49.13	28.66	0.984	1.115	1.334	1.620	1.934	1.128
27/54*	26.00	29.32	34.89	42.15	50.13	29.66	1.024	1.155	1.374	1.660	1.974	1.168
28/56*	27.00	30.32	35.89	43.15	51.13	30.66	1.063	1.194	1.413	1.699	2.013	1.207
29/58*	28.00	31.32	36.89	44.15	52.13	31.66	1.102	1.233	1.452	1.738	2.052	1.246
30/60	29.00	32.32	37.89	45.15	53.13	32.66	1.142	1.273	1.492	1.778	2.092	1.286
31/62*	30.00	33.32	38.89	46.15	54.13	33.66	1.181	1.312	1.531	1.817	2.131	1.325
32/64*	31.00	34.32	39.89	47.15	55.13	34.66	1.220	1.351	1.570	1.856	2.170	1.364
33/66*	32.00	35.32	40.89	48.15	56.13	35.66	1.260	1.391	1.610	1.896	2.210	1.404
34/68*	33.00	36.32	41.89	49.15	57.13	36.66	1.299	1.430	1.649	1.935	2.249	1.443
35/70	34.00	37.32	42.89	50.15	58.13	37.66	1.339	1.470	1.689	1.975	2.289	1.483
36/72*	35.00	38.32	43.89	51.15	59.13	38.66	1.378	1.509	1.728	2.014	2.328	1.522
37/74*	36.00	39.32	44.89	52.15	60.13	39.66	1.417	1.548	1.767	2.053	2.367	1.561
38/76*	37.00	40.32	45.89	53.15	61.13	40.66	1.457	1.588	1.807	2.093	2.407	1.601
39/78*	38.00	41.32	46.89	54.15	62.13	41.66	1.496	1.627	1.846	2.132	2.446	1.640
40/80	39.00	42.32	47.89	55.15	63.13	42.66	1.535	1.666	1.885	2.171	2.485	1.679
41/82*	40.00	43.32	48.89	56.15	64.13	43.66	1.575	1.706	1.925	2.211	2.525	1.719
42/84*	41.00	44.32	49.89	57.15	65.13	44.66	1.614	1.745	1.964	2.250	2.564	1.758
43/86*	42.00	45.32	50.89	58.15	66.13	45.66	1.654	1.785	2.004	2.290	2.604	1.798
44/88*	43.00	46.32	51.89	59.15	67.13	46.66	1.693	1.824	2.043	2.329	2.643	1.837
45/90	44.00	47.32	52.89	60.15	68.13	47.66	1.732	1.863	2.082	2.368	2.682	1.876
46/92*	45.00	48.32	53.89	61.15	69.13	48.66	1.772	1.903	2.122	2.408	2.722	1.916
47/94*	46.00	49.32	54.89	62.15	70.13	49.66	1.811	1.942	2.161	2.447	2.761	1.955
48/96*	47.00	50.32	55.89	63.15	71.13	50.66	1.850	1.981	2.200	2.486	2.800	1.994
49/98*	48.00	51.32	56.89	64.15	72.13	51.66	1.890	2.021	2.240	2.526	2.840	2.034
50/100	49.00	52.32	57.89	65.15	73.13	52.66	1.929	2.060	2.279	2.565	2.879	2.073

* Consult factory for availability.

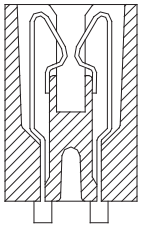
1.00 mm [.039”] Contact Centers, 21.84 mm [.860”] Insulator Height, Right Angle

SPECIFICATIONS

- Accommodates 1.57 mm ± 0.20 mm [.062” ± .008”] PC board
- PA9T or PPS insulator
- Molded-in key available
- High reliability/high cycle hairpin bellow contacts
- 1 Amp current rating per contact for contacts fully energized
- 150 grams normal force minimum
- UL Flammability Rating: 94V-0

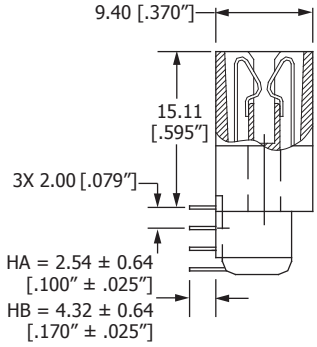


READOUT

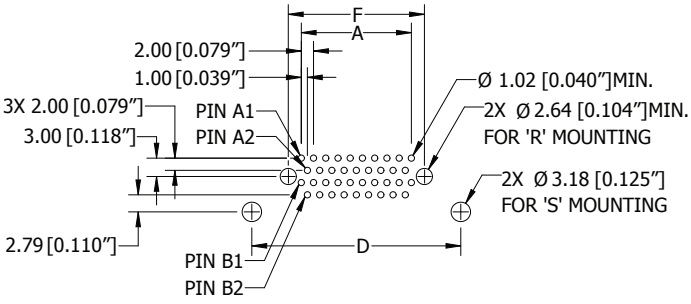


DUAL (D)

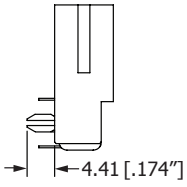
TERMINATION TYPE



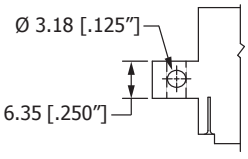
PCB LAYOUT



MOUNTING STYLE

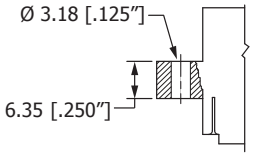


BOARD LOCK (R)
(with no mounting ears)

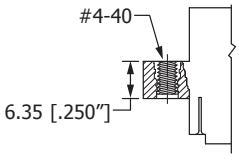


SIDE MOUNTING (S)

NO MOUNTING EARS (N)



CLEARANCE HOLE (D)



THREADED INSERT (T)

1.00 mm [.039”] Contact Centers, 21.84 mm [.860”] Insulator Height, Right Angle

PART NUMBER OPTIONS

G B E 50 D HA D - Sxxx

MATERIALS (INSULATOR/CONTACT)
G = PA9T/Phosphor Bronze
R = PPS/Phosphor Bronze
J = PA9T/Beryllium Copper
A = PPS/Beryllium Copper
Refer to Page 7 for Operating/Processing Temperatures

CONTACT FINISH - RoHS Compliant
All platings are Lead Free and have .000050” Nickel underplate

Contact Surface	Termination
B = .000010” Gold	.000100” Pure Tin, Matte
C = .000030” Gold	.000100” Pure Tin, Matte

CONTACT CENTERS
E = 1 mm [.039”]

NUMBER OF CONTACT POSITIONS
See Chart Below

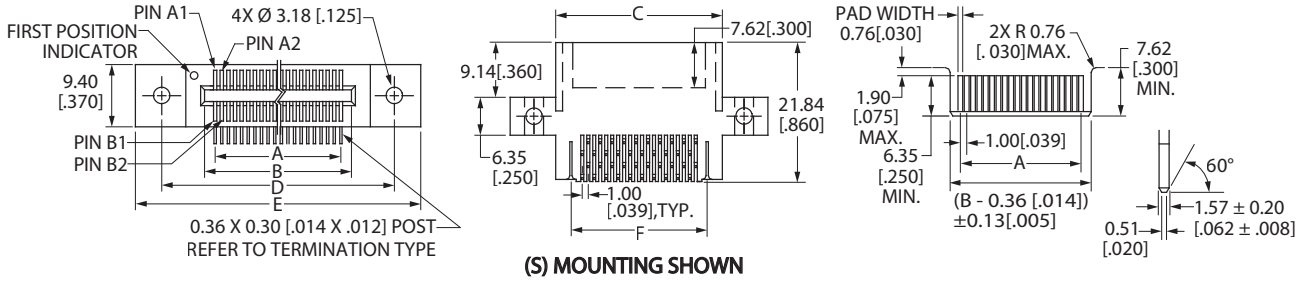
MODIFICATION CODE (Consult Factory)
OMIT FOR STANDARD

MOUNTING STYLE (Opposite Page)
D = Flush Mounting
N = No Mounting
R = Metal Board Lock
S = Side Mounting
T = Flush Mounting -Threaded Insert

TERMINATION TYPE (Opposite Page)
HA = 2.54 mm [.100”] Tail Length
HB = 4.32 mm [.170”] Tail Length

READOUT (Opposite Page)
D = Dual

DIMENSIONS Dimensions in [ ] are in inches, all others are in millimeters.



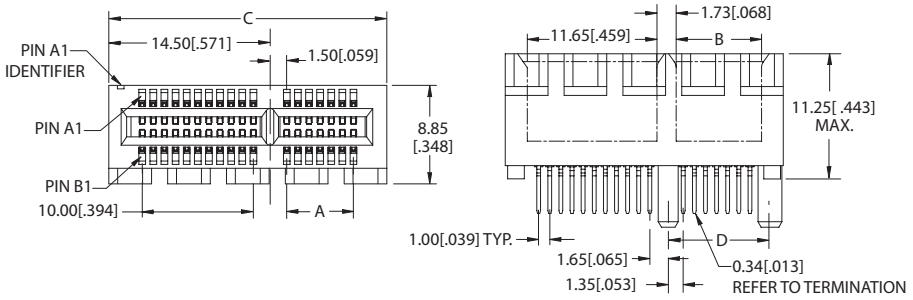
(S) MOUNTING SHOWN

POSITIONS/ CONTACTS	MILLIMETERS						INCHES					
	A±0.13	B±0.13	C±0.38	D±0.25	E±0.51	F±0.25	A±.005	B±.005	C±.015	D±.010	E±.020	F±.010
02/04*	1.00	4.32	9.89	17.15	25.13	5.25	0.039	0.170	0.389	0.675	0.989	0.207
03/06*	2.00	5.32	10.89	18.15	26.13	6.25	0.079	0.210	0.429	0.715	1.029	0.246
04/08*	3.00	6.32	11.89	19.15	27.13	7.25	0.118	0.249	0.468	0.754	1.068	0.285
05/10	4.00	7.32	12.89	20.15	28.13	8.25	0.157	0.288	0.507	0.793	1.107	0.325
06/12*	5.00	8.32	13.89	21.15	29.13	9.25	0.197	0.328	0.547	0.833	1.147	0.364
07/14*	6.00	9.32	14.89	22.15	30.13	10.25	0.236	0.367	0.586	0.872	1.186	0.404
08/16*	7.00	10.32	15.89	23.15	31.13	11.25	0.276	0.407	0.626	0.912	1.226	0.443
09/18*	8.00	11.32	16.89	24.15	32.13	12.25	0.315	0.446	0.665	0.951	1.265	0.482
10/20	9.00	12.32	17.89	25.15	33.13	13.25	0.354	0.485	0.704	0.990	1.304	0.522
11/22*	10.00	13.32	18.89	26.15	34.13	14.25	0.394	0.525	0.744	1.030	1.344	0.561
12/24	11.00	14.32	19.89	27.15	35.13	15.25	0.433	0.564	0.783	1.069	1.383	0.600
13/26*	12.00	15.32	20.89	28.15	36.13	16.25	0.472	0.603	0.822	1.108	1.422	0.640
14/28*	13.00	16.32	21.89	29.15	37.13	17.25	0.512	0.643	0.862	1.148	1.462	0.679
15/30	14.00	17.32	22.89	30.15	38.13	18.25	0.551	0.682	0.901	1.187	1.501	0.719
16/32	15.00	18.32	23.89	31.15	39.13	19.25	0.591	0.722	0.941	1.227	1.541	0.758
17/34*	16.00	19.32	24.89	32.15	40.13	20.25	0.630	0.761	0.980	1.266	1.580	0.797
18/36*	17.00	20.32	25.89	33.15	41.13	21.25	0.669	0.800	1.019	1.305	1.619	0.837
19/38*	18.00	21.32	26.89	34.15	42.13	22.25	0.709	0.840	1.059	1.345	1.659	0.876
20/40	19.00	22.32	27.89	35.15	43.13	23.25	0.748	0.879	1.098	1.384	1.698	0.915
21/42*	20.00	23.32	28.89	36.15	44.13	24.25	0.787	0.918	1.137	1.423	1.737	0.955
22/44*	21.00	24.32	29.89	37.15	45.13	25.25	0.827	0.958	1.177	1.463	1.777	0.994
23/46*	22.00	25.32	30.89	38.15	46.13	26.25	0.866	0.997	1.216	1.502	1.816	1.033
24/48*	23.00	26.32	31.89	39.15	47.13	27.25	0.906	1.037	1.256	1.542	1.856	1.073
25/50	24.00	27.32	32.89	40.15	48.13	28.25	0.945	1.076	1.295	1.581	1.895	1.112
26/52*	25.00	28.32	33.89	41.15	49.13	29.25	0.984	1.115	1.334	1.620	1.934	1.152
27/54*	26.00	29.32	34.89	42.15	50.13	30.25	1.024	1.155	1.374	1.660	1.974	1.191
28/56*	27.00	30.32	35.89	43.15	51.13	31.25	1.063	1.194	1.413	1.699	2.013	1.230
29/58*	28.00	31.32	36.89	44.15	52.13	32.25	1.102	1.233	1.452	1.738	2.052	1.270
30/60	29.00	32.32	37.89	45.15	53.13	33.25	1.142	1.273	1.492	1.778	2.092	1.309
31/62*	30.00	33.32	38.89	46.15	54.13	34.25	1.181	1.312	1.531	1.817	2.131	1.348
32/64*	31.00	34.32	39.89	47.15	55.13	35.25	1.220	1.351	1.570	1.856	2.170	1.388
33/66*	32.00	35.32	40.89	48.15	56.13	36.25	1.260	1.391	1.610	1.896	2.210	1.427
34/68*	33.00	36.32	41.89	49.15	57.13	37.25	1.299	1.430	1.649	1.935	2.249	1.467
35/70	34.00	37.32	42.89	50.15	58.13	38.25	1.339	1.470	1.689	1.975	2.289	1.506
36/72*	35.00	38.32	43.89	51.15	59.13	39.25	1.378	1.509	1.728	2.014	2.328	1.545
37/74*	36.00	39.32	44.89	52.15	60.13	40.25	1.417	1.548	1.767	2.053	2.367	1.585
38/76*	37.00	40.32	45.89	53.15	61.13	41.25	1.457	1.588	1.807	2.093	2.407	1.624
39/78*	38.00	41.32	46.89	54.15	62.13	42.25	1.496	1.627	1.846	2.132	2.446	1.663
40/80	39.00	42.32	47.89	55.15	63.13	43.25	1.535	1.666	1.885	2.171	2.485	1.703
41/82*	40.00	43.32	48.89	56.15	64.13	44.25	1.575	1.706	1.925	2.211	2.525	1.742
42/84*	41.00	44.32	49.89	57.15	65.13	45.25	1.614	1.745	1.964	2.250	2.564	1.781
43/86*	42.00	45.32	50.89	58.15	66.13	46.25	1.654	1.785	2.004	2.290	2.604	1.821
44/88*	43.00	46.32	51.89	59.15	67.13	47.25	1.693	1.824	2.043	2.329	2.643	1.860
45/90	44.00	47.32	52.89	60.15	68.13	48.25	1.732	1.863	2.082	2.368	2.682	1.900
46/92*	45.00	48.32	53.89	61.15	69.13	49.25	1.772	1.903	2.122	2.408	2.722	1.939
47/94*	46.00	49.32	54.89	62.15	70.13	50.25	1.811	1.942	2.161	2.447	2.761	1.978
48/96*	47.00	50.32	55.89	63.15	71.13	51.25	1.850	1.981	2.200	2.486	2.800	2.018
49/98*	48.00	51.32	56.89	64.15	72.13	52.25	1.890	2.021	2.240	2.526	2.840	2.057
50/100	49.00	52.32	57.89	65.15	73.13	53.25	1.929	2.060	2.279	2.565	2.879	2.096

* Consult factory for availability.

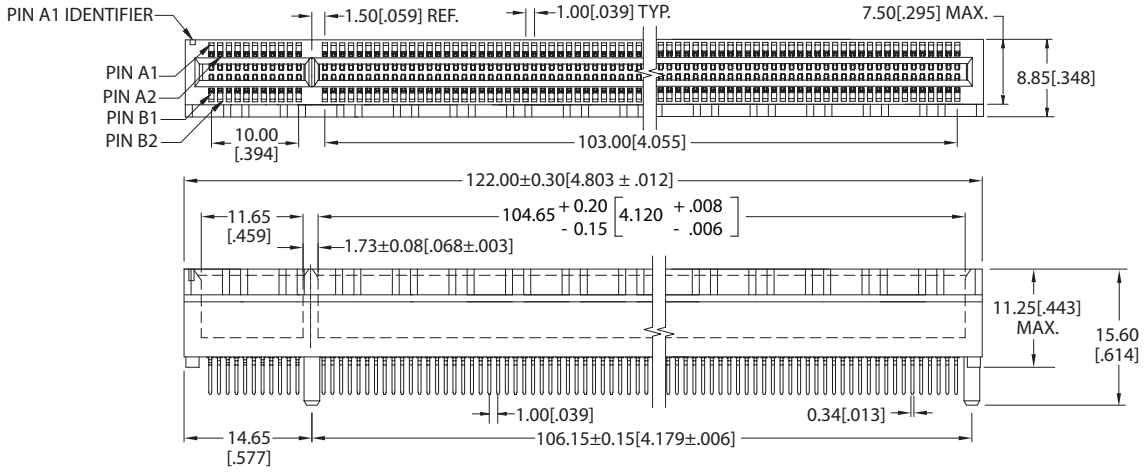
1.00 mm [.039”] Contact Centers, PCI Express, Dip Solder

DIMENSIONS Dimensions in [ ] are in inches, all others are in millimeters.

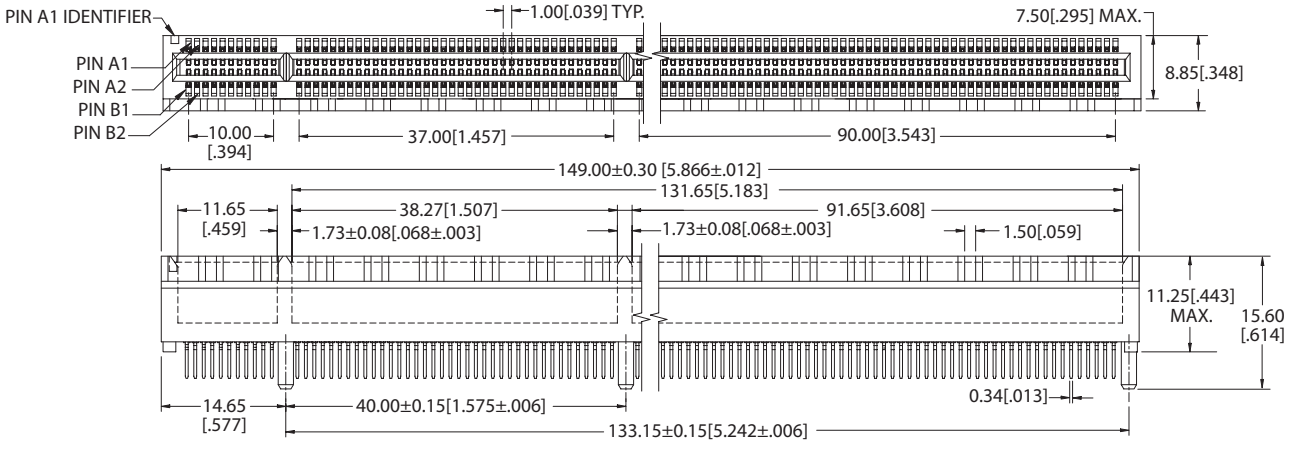


18/36, 32/64, 49/98, 82/164 POSITION, STAGGERED DIP SOLDER (HH)

POSITIONS/ CONTACTS	MILLIMETERS				INCHES			
	A±0.15	B+0.20/-0.15	C±0.30	D±0.10	A±0.006	B+0.008/-0.006	C±0.012	D±0.004
18/36	6.00	7.65	25.00	9.15	0.236	0.301	0.984	0.360
32/64	20.00	21.65	39.00	23.15	0.787	0.852	1.535	0.911
49/98	37.00	38.65	56.00	40.15	1.457	1.522	2.205	1.581
82/164	70.00	71.65	89.00	73.15	2.756	2.821	3.504	2.880



115/230 POSITION, STAGGERED DIP SOLDER (HH)



140/280 POSITION, STAGGERED DIP SOLDER (HH)

1.00 mm [.039"] Contact Centers, PCI Express, Dip Solder

PART NUMBER OPTIONS

G B E 18 D HH N -T9 2 1

MATERIALS (INSULATOR/CONTACT)
G = Nylon/Phosphor Bronze

CONTACT FINISH - RoHS Compliant
All platings are Lead Free and have .000050" Nickel underplate

	Contact Surface	Termination
B =	.000010" Gold	.000100" Pure Tin, Matte
C =	.000030" Gold	.000100" Pure Tin, Matte
W =	Gold Flash	.000100" Pure Tin, Matte

CONTACT CENTERS
E = 1 mm [.039"]

NUMBER OF CONTACT POSITIONS
18, 32, 49, 82, 115, 140

READOUT
D = Dual

Operating & Processing Temperature: Consult Factory

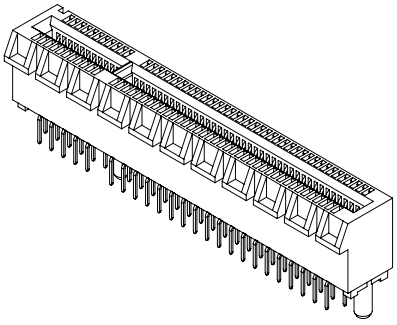
COLOR
1 = Black
Consult factory for alternate colors

TAIL LENGTH
1 = 2.30 mm [.091"]
2 = 2.54 mm [.100"]
3 = 3.10 mm [.122"]

MODIFICATION CODE
T7 = Gen 3
T9 = Gen 1

MOUNTING STYLE
N = No Mounting

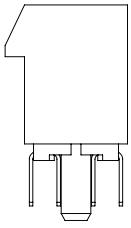
TERMINATION TYPE
HH = Staggered Dip Solder



SPECIFICATIONS

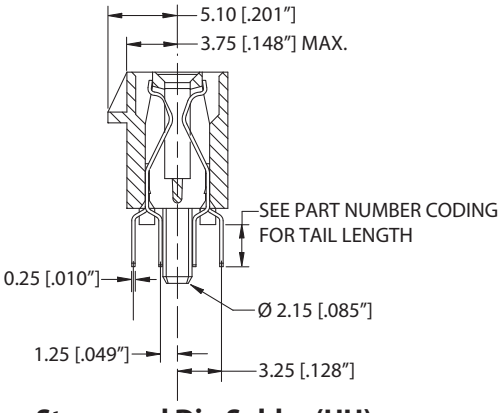
- All PCI Express parts meet the latest PCI Express specifications
- Supports 2.5 GT/s, 5.0 GT/s or 8.0 GT/s Data Transfer Rate (per pair data bandwidth)
- Accommodates 1.57 mm [.062"] PC board
- 1.1 Amp current rating per contact
- UL Flammability Rating: 94V-0

READOUT



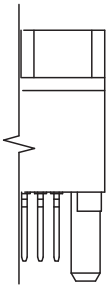
DUAL (D)

TERMINATION TYPE



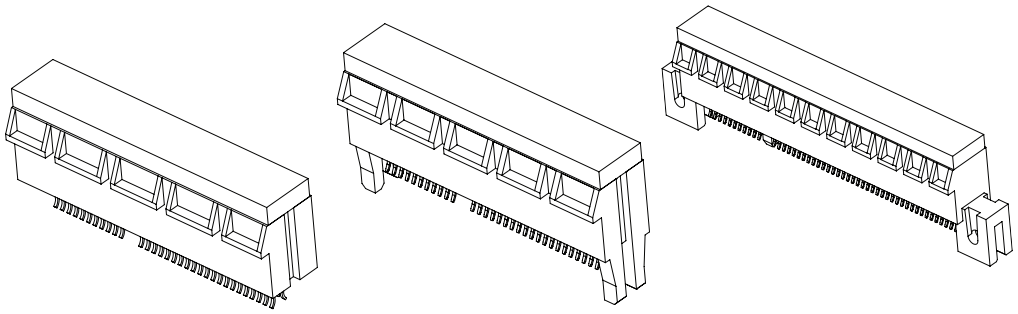
Staggered Dip Solder (HH)

MOUNTING STYLE

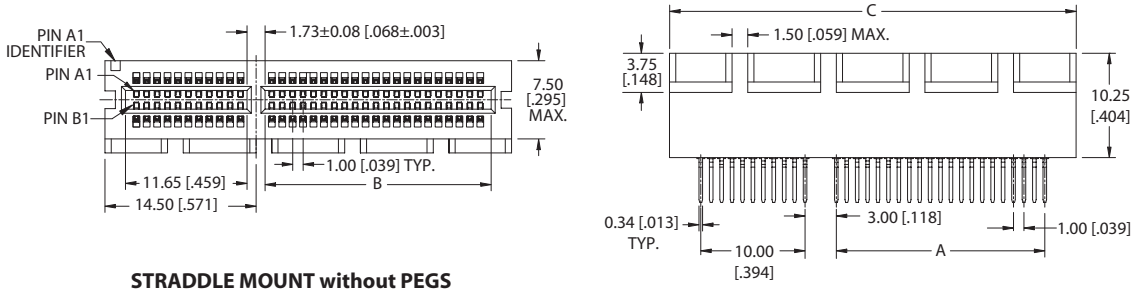


No Mounting Ears (N)

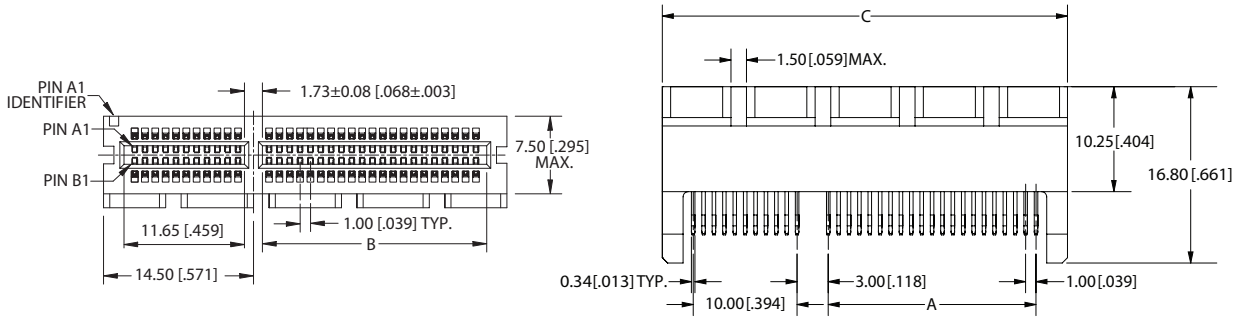
1.00 mm [.039”] Contact Centers, PCI Express, Card Extender for Straddle Mount



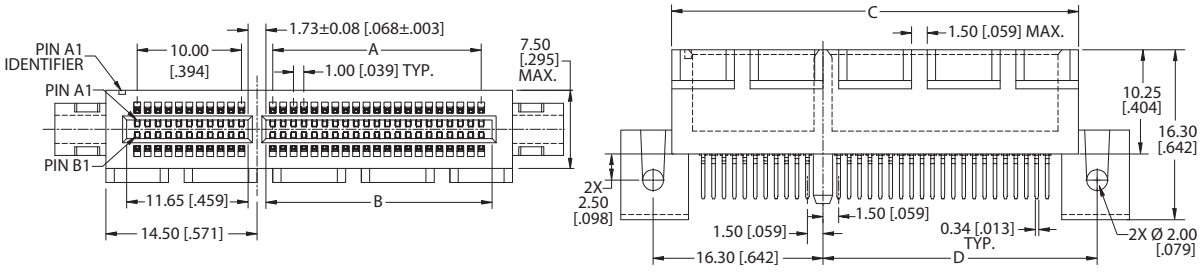
DIMENSIONS Dimensions in [ ] are in inches, all others are in millimeters.



STRADDLE MOUNT without PEGS
Example Part Number: GBE18DHRN-T941



STRADDLE MOUNT with PEGS
Example Part Number: GBE18DHRN-T9410



STRADDLE MOUNT with CLIPS
Example Part Number: GBE18DHRQ-T941

POSITIONS/ CONTACTS	MILLIMETERS				INCHES			
	A	B	C	D	A	B	C	D
18/36	6.00	7.65	25.00	12.30	0.236	0.301	0.984	0.484
32/64	20.00	21.65	39.00	26.30	0.787	0.852	1.535	1.035
49/98	37.00	38.65	56.00	43.30	1.457	1.522	2.205	1.705
82/164	70.00	71.65	89.00	76.30	2.756	2.821	3.504	3.004

1.00 mm [.039"] Contact Centers, PCI Express, Card Extender for Straddle Mount

PART NUMBER OPTIONS

G B E 18 D HR N -T9 4 1 0

MATERIALS (INSULATOR/CONTACT)
G = Nylon/Phosphor Bronze

CONTACT FINISH - RoHS Compliant
All platings are Lead Free and have .000050" Nickel underplate

	Contact Surface	Termination
B =	.000010" Gold	.000100" Pure Tin, Matte
C =	.000030" Gold	.000100" Pure Tin, Matte
W =	Gold Flash	.000100" Pure Tin, Matte

CONTACT CENTERS
E = 1 mm [.039"]

NUMBER OF CONTACT POSITIONS
18, 32, 49, 82

READOUT
D = Dual

MODIFICATION CODE
Omit '0' For Without Pegs ('N' or 'Q' Mounting)
0 = Pegs
(Available in 'N' Mounting Only)

COLOR
1 = Black

TAIL LENGTH
4 = 4.10 mm [.161"]

MOUNTING STYLE
N = No Mounting
Q = Straddle Mount with Clips
('Q' Only Available with T941 Modification)

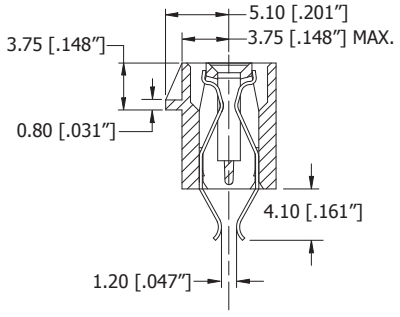
TERMINATION TYPE
HR = Card Extender for Straddle Mount

Operating & Processing Temperature: Consult Factory

SPECIFICATIONS

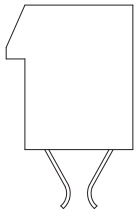
- All PCI Express parts meet the latest PCI Express specifications
- Supports 2.5 GT/s, 5.0 GT/s or 8.0 GT/s Data Transfer Rate (per pair data bandwidth)
- Accommodates 1.57 mm [.062"] PC board
- 1.1 Amp current rating per contact
- UL Flammability Rating: 94V-0

TERMINATION TYPE



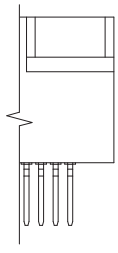
CARD EXTENDER (HR)

READOUT

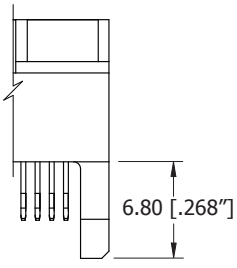


DUAL (D)

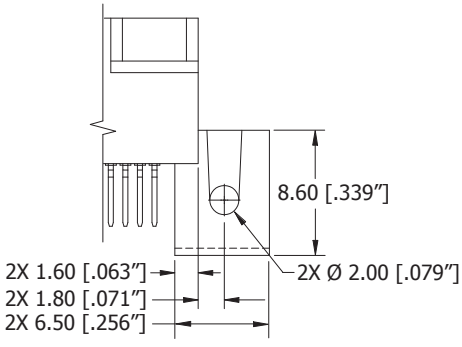
MOUNTING STYLE



WITHOUT PEGS
NO MOUNTING (N)



WITH PEGS
('N' Mounting Style with '0' Modification Code)

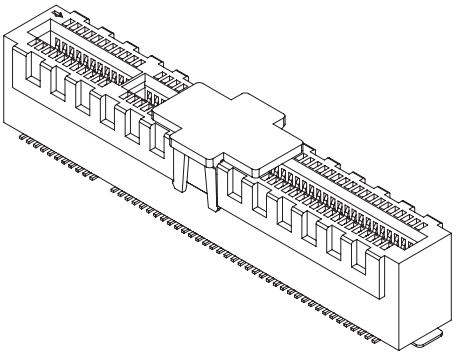


WITH CLIPS (Q)

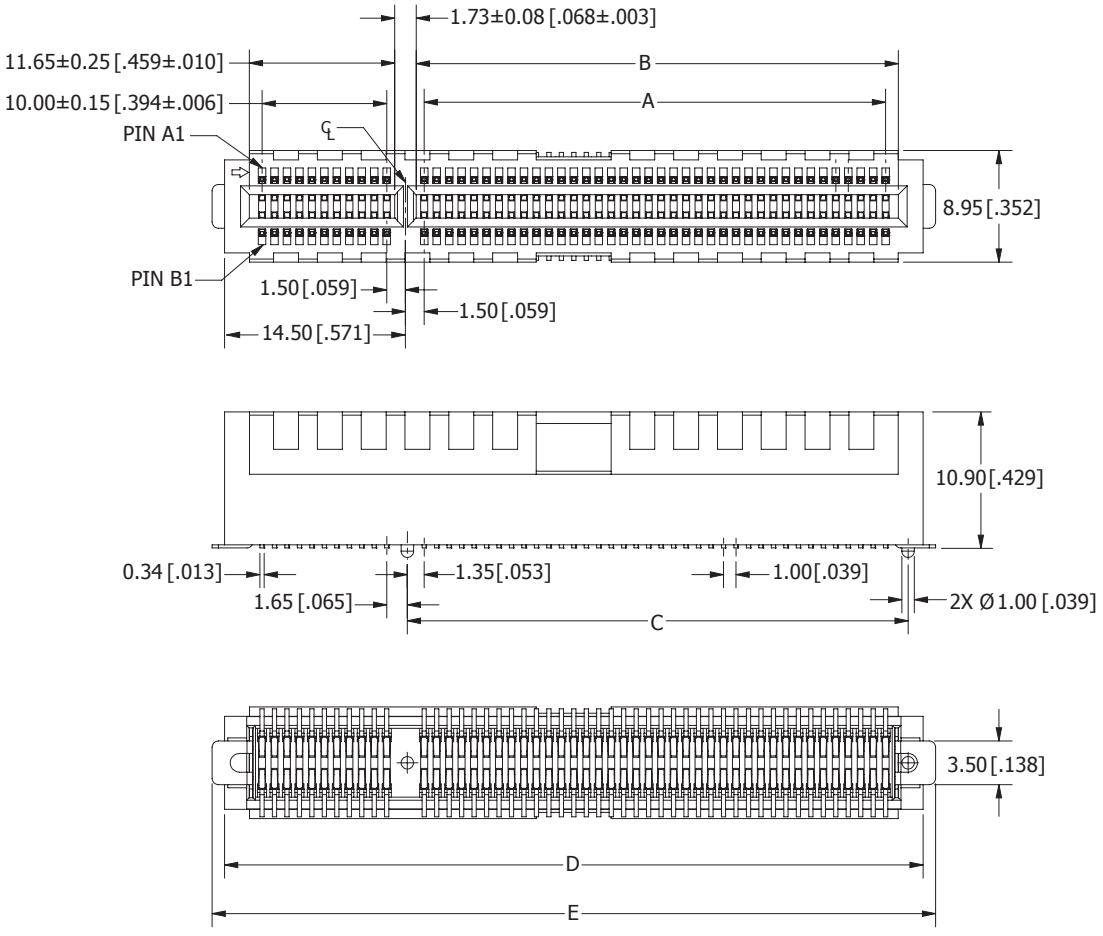
1.00 mm [.039”] Contact Centers, PCI Express, SMT with Posts

SPECIFICATIONS

- All PCI Express parts meet the latest PCI Express specifications
- Supports 2.5 GT/s, 5.0 GT/s or 8.0 GT/s Data Transfer Rate (per pair data bandwidth)
- Accommodates 1.57 mm [.062”] PC board
- 1.1 Amp current rating per contact
- UL Flammability Rating: 94V-0



DIMENSIONS Dimensions in [ ] are in inches, all others are in millimeters.



1.00 mm [.039”] Contact Centers, PCI Express, SMT with Posts

PART NUMBER OPTIONS

G B E 18 D HF N -T951

MATERIALS (INSULATOR/CONTACT)
G = Nylon/ Phosphor Bronze

CONTACT FINISH - RoHS Compliant
All platings are Lead Free and have .000050” Nickel underplate

	Contact Surface	Termination
B =	.000010” Gold	.000100” Pure Tin, Matte
C =	.000030” Gold	.000100” Pure Tin, Matte
W =	Gold Flash	.000100” Pure Tin, Matte

CONTACT CENTERS
E = 1 mm [.039”]

MOUNTING STYLE
N = No Mounting

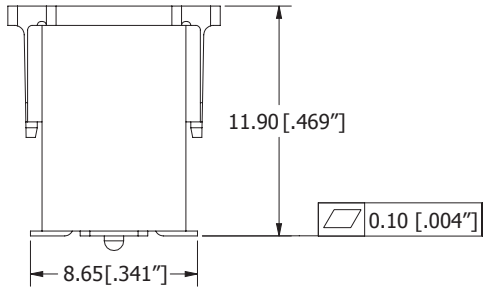
TERMINATION TYPE
HF = Surface Mount with Posts

READOUT
D = Dual

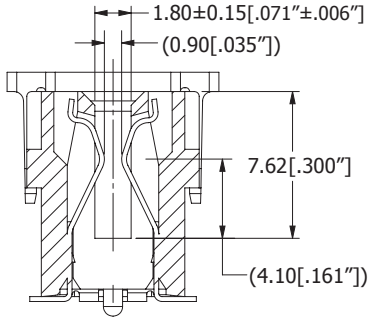
NUMBER OF CONTACT POSITIONS
18, 32, 49, 82

Operating & Processing Temperature: Consult Factory

READOUT



TERMINATION TYPE



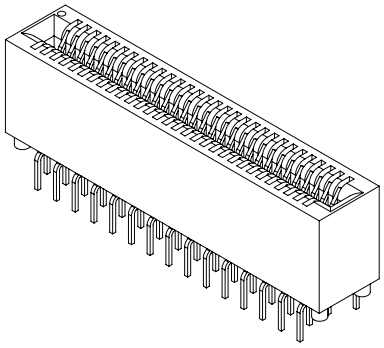
(HF) SURFACE MOUNT WITH POSTS

POSITIONS/ CONTACTS	MILLIMETERS					INCHES				
	A±0.15	B +0.20/-0.15	C±0.25	D±0.25	E±0.25	A±0.006”	B +.008/-.006”	C ±0.010”	D±0.010”	E±0.010”
18/36	6.00	7.65	9.15	25.00	27.00	0.236	0.301	0.360	0.984	1.063
32/64	20.00	21.65	23.15	39.00	41.00	0.787	0.852	0.911	1.535	1.614
49/98	37.00	38.65	40.15	56.00	58.00	1.457	1.522	1.581	2.205	2.283
82/164	70.00	71.65	73.15	89.00	91.00	2.756	2.821	2.880	3.504	3.583

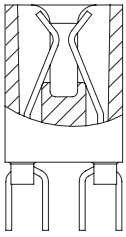
.050" [1.27 mm] Contact Centers, .488" [12.40 mm] Insulator Height, Ultra Thin, Dip Solder/Card Extender/SMT

SPECIFICATIONS

- Accommodates .062" ± .008" [1.57 mm ± 0.20 mm] PC board
- PPS or PA9T insulator
- Contact Material: Phosphor Bronze, Beryllium Copper or Spinodal
- Molded-in key available
- 1 Amp current rating per contact for contacts fully energized
- UL Flammability Rating: 94V-0
- Operating Temperature: -65°C up to +200°C

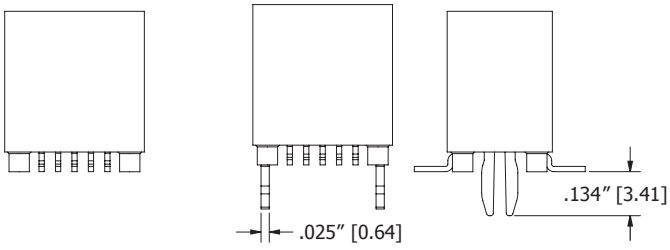


READOUT



DUAL (D)

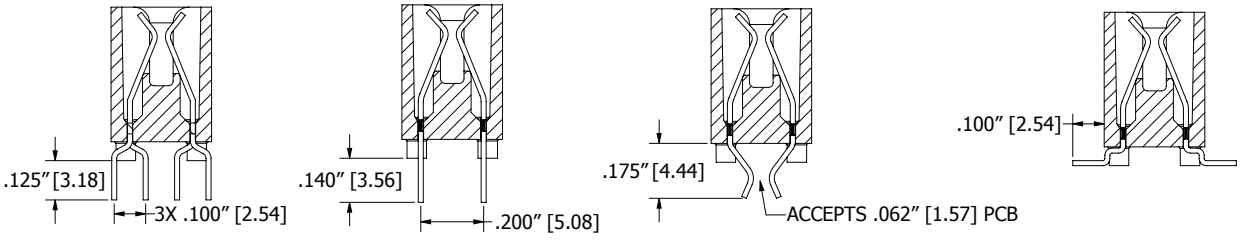
MOUNTING STYLE



NO MOUNTING EARS (N)

METAL BOARD LOCK (with no mounting ears) (R)

TERMINATION TYPE



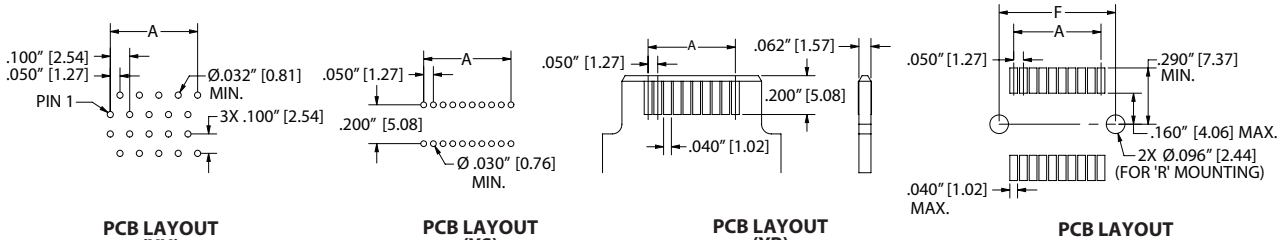
DIP SOLDER (YH)

DIP SOLDER (YS)

CARD EXTENDER (YR)

SURFACE MOUNT (YF)

PCB LAYOUT



PCB LAYOUT (YH)

PCB LAYOUT (YS)

PCB LAYOUT (YR)

PCB LAYOUT (YF)

.050" [1.27 mm] Contact Centers, .488" [12.40 mm] Insulator Height, Ultra Thin, Dip Solder/Card Extender/SMT

PART NUMBER OPTIONS

G C B 20 D YH N - S1355

MATERIALS (INSULATOR/CONTACT)
- R = PPS/Phosphor Bronze
- G = PA9T/Phosphor Bronze
- A = PPS/Beryllium Copper
- J = PA9T/Beryllium Copper
- F = PPS/Spinodal**

Refer to Page 7 for Operating/Processing Temperatures

CONTACT FINISH - RoHS Compliant
All platings are Lead Free and have .000050" Nickel underplate

	Contact Surface	Termination
B =	.000010" Gold	.000100" Pure Tin, Matte
C =	.000030" Gold	.000100" Pure Tin, Matte
M =	.000030" Gold	.000010" Gold Overall

CONTACT CENTERS
- B = .050" [1.27 mm]

NUMBER OF CONTACT POSITIONS
See Chart Below

MODIFICATION CODE (Consult Factory)
- S1355 = for YH Termination Only
- S1675 = for YS, YR & YF Terminations

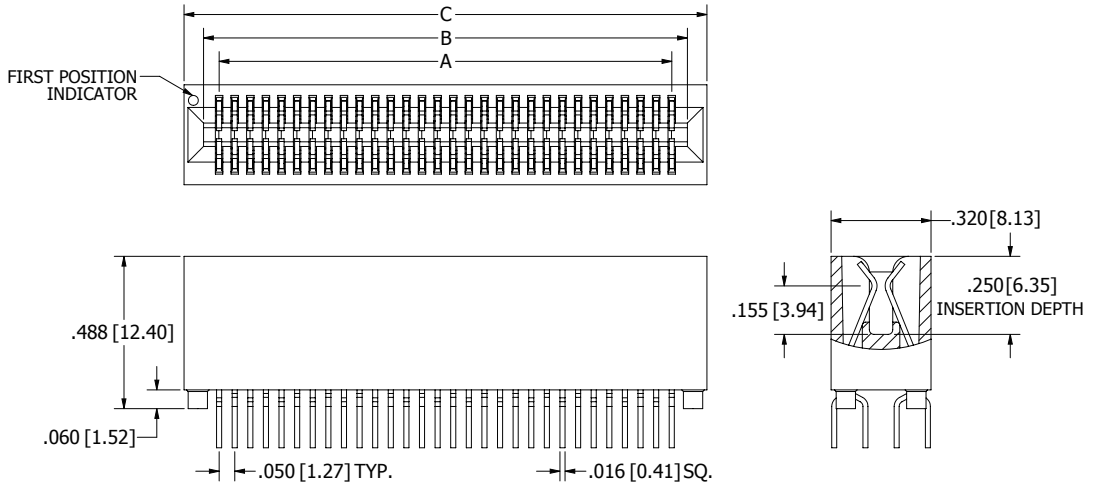
MOUNTING STYLE
- N = No Mounting
- R = Metal Board Locks (for YF Termination Only)

TERMINATION TYPE (See Opposite Page)
- YH = Dip Solder, Alternate Bent In & Out
- YS = Dip Solder
- YR = Card Extender
- YF = Surface Mount

READOUT
- D = Dual

****Consult factory for special soldering guidelines. 'M' plating only.**

DIMENSIONS Dimensions in [ ] are in millimeters, all others are in inches.



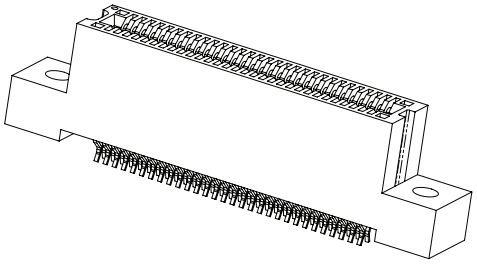
POSITIONS/ CONTACTS	INCHES				MILLIMETERS			
	A±.005	B±.005	C±.015	F±.010	A±0.13	B±0.13	C±0.38	F±0.25
5/10	0.200	0.300	0.425	0.350	5.08	7.62	10.80	8.89
6/12*	0.250	0.350	0.475	0.400	6.35	8.89	12.07	10.16
10/20*	0.450	0.550	0.675	0.600	11.43	13.97	17.15	15.24
15/30	0.700	0.800	0.925	0.850	17.78	20.32	23.50	21.59
20/40	0.950	1.050	1.175	1.100	24.13	26.67	29.85	27.94
25/50*	1.200	1.300	1.425	1.350	30.48	33.02	36.20	34.29
30/60	1.450	1.550	1.675	1.600	36.83	39.37	42.55	40.64
40/80	1.950	2.050	2.175	2.100	49.53	52.07	55.25	53.34
50/100	2.450	2.550	2.675	2.600	62.23	64.77	67.95	66.04
79/158	3.900	4.000	4.125	4.050	99.06	101.60	104.78	102.87

* Consult factory for availability.

.050" [1.27 mm] Contact Centers, .610" [15.49 mm] Insulator Height, Dip Solder/Card Extender/SMT for .031"[0.79 mm], .062"[1.57 mm] or .093"[2.36 mm] Mating PCB

SPECIFICATIONS

- Accommodates .031" ± .006" [0.79 mm ± 0.15 mm], .062" ± .008" [1.57 mm ± 0.20 mm] or .093" ± .008" [2.36 mm ± 0.20 mm] mating PCB
- PPS or PA9T insulator
- Molded-in key available
- High reliability/high cycle hairpin bellow & cantilever contacts
- 1 Amp current rating per contact for contacts fully energized
- UL Flammability Rating: 94V-0
- Operating Temperature: -65°C up to +200°C



TERMINATION TYPE

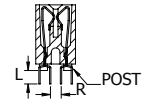
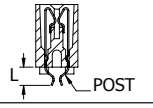
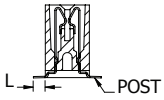
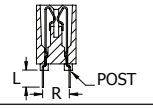
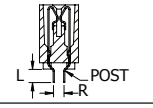
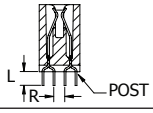
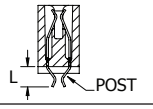
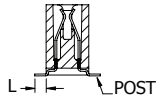
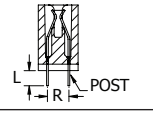
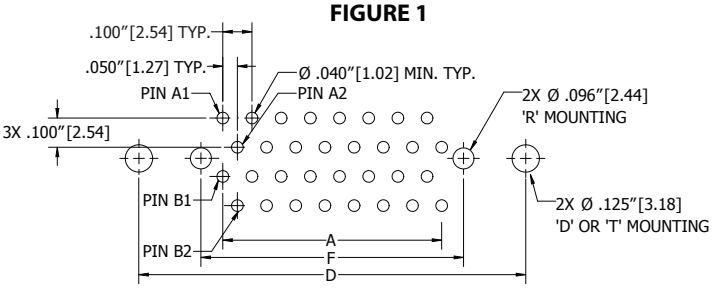
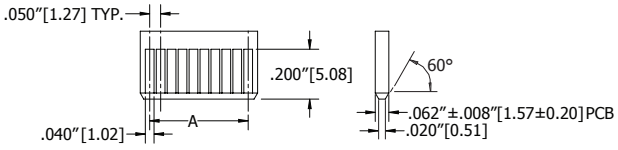
HAIR PIN POST .018" [0.46] X .012" [0.30]	(P/N CODE) TERMINATION LAYOUT	ROW SPACING ('R' DIM)	TAIL LENGTH ('L' DIM)
	(HH) THRU HOLE STRAIGHT figure 1	3 X 0.100" [2.54]	0.125" [3.18]
	(HR) CARD EXTENDER figure 2	ACCEPTS .062" [1.57] PCB	0.160" [4.06]
	(HF) SURFACE MOUNT figure 3	N/A	0.100" [2.54]
	(HL) THRU HOLE STRAIGHT figure 4	0.250" [6.35]	0.160" [4.06]
	(HN) THRU HOLE STRAIGHT figure 4	0.100" [2.54]	0.125" [3.18]
CANTILEVER POST SIZE .016" [0.41] SQ.	(P/N CODE) TERMINATION LAYOUT	ROW SPACING ('R' DIM)	TAIL LENGTH ('L' DIM)
	(YH) THRU HOLE STRAIGHT figure 1	3 X 0.100" [2.54]	0.125" [3.18]
	(YR) CARD EXTENDER figure 2	ACCEPTS .062" [1.57] PCB	0.175" [4.45]
	(YF) SURFACE MOUNT figure 3	N/A	0.100" [2.54]
	(YS) THRU HOLE STRAIGHT figure 4	0.200" [5.08]	0.140" [3.56]

FIGURE 1



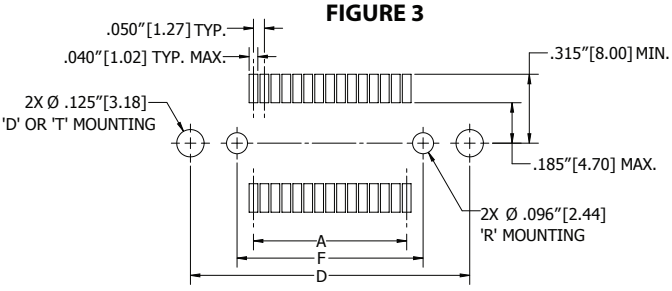
PCB LAYOUT RECOMMENDED (HH, YH)

FIGURE 2



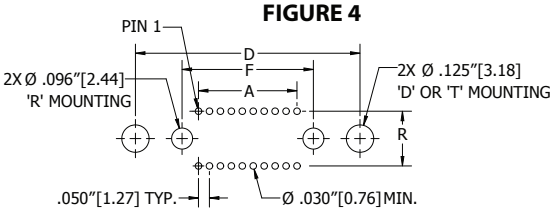
PCB LAYOUT, SOLDER END (HR, YR)

FIGURE 3



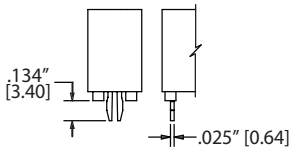
SURFACE MOUNT PCB LAYOUT (HF, YF)

FIGURE 4



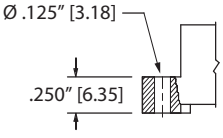
PCB LAYOUT (HL, HN, YS)

MOUNTING STYLE

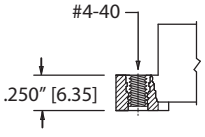


BOARD LOCK (R)
(with no mounting ears)

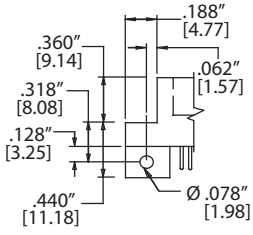
NO MOUNTING EARS (N)



FLUSH MOUNTING (D)



FLUSH MOUNTING WITH THREADED INSERT (T)



STRADDLE MOUNT (Q)

.050" [1.27 mm] Contact Centers, .610" [15.49 mm] Insulator Height, Dip Solder/Card Extender/SMT for .031"[0.79mm], .062"[1.57mm] or .093"[2.36mm] Mating PCB

PART NUMBER OPTIONS

G B B 40 D HH D - Sxxx

MATERIALS (INSULATOR/CONTACT)
- G = PA9T/Phosphor Bronze
- R = PPS/Phosphor Bronze
- J = PA9T/Beryllium Copper
- A = PPS/Beryllium Copper
- F = PPS/Spinodal**

Refer to Page 7 for Operating/Processing Temperatures

CONTACT FINISH - RoHS Compliant

All platings are Lead Free and have .000050" Nickel underplate

	Contact Surface	Termination
B =	.000010" Gold	.000100" Pure Tin, Matte
C =	.000030" Gold	.000100" Pure Tin, Matte
***M =	.000030" Gold	.000010" Gold Overall

***(YH, YR, YF & YS Termination only)

CONTACT CENTERS
- B = .050" [1.27 mm]

NUMBER OF CONTACT POSITIONS
See Chart Below

MODIFICATION CODE (Consult Factory)
OMIT FOR STANDARD
-S1648 = .031"±.006" [0.79 ± 0.15] Mating PCB
-S1763 = .093"±.008" [2.36 ± 0.20] Mating PCB
(for HH, HR, HF, HN & HL Termination Only)

MOUNTING STYLE (Opposite Page)
- D = Flush Mounting
- N = No Mounting
- T = Flush Mounting With Threaded Insert
- Q = Straddle Mount (Card Extender Only)*
- R = Metal Board Locks

TERMINATION TYPE (Opposite Page)
- HH, YH = Staggered Dip Solder
- HR, YR = Card Extender
- HF, YF = Surface Mount
- HL = Dip Solder
- HN = Dip Solder
- YS = Dip Solder

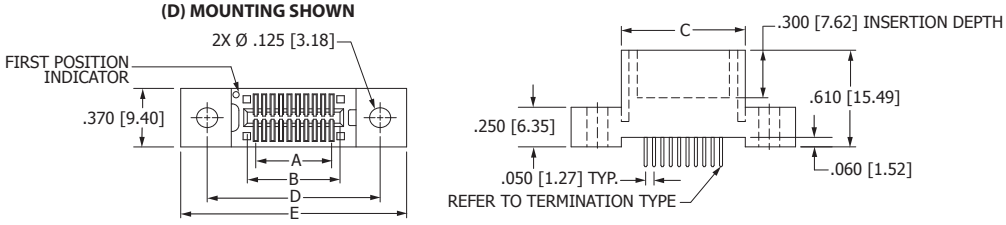
READOUT (Opposite Page)
- D = Dual

****Consult factory for special soldering guidelines. YH, YR, YF & YS termination with 'M' plating only.**

DIMENSIONS

Dimensions in [ ] are in millimeters, all others are in inches.

(D) MOUNTING SHOWN



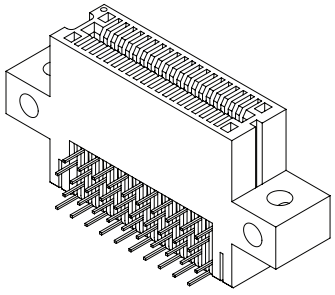
POSITIONS/ CONTACTS	INCHES						MILLIMETERS					
	A±.005	B±.005	C±.015	D±.010	E±.020	F±.010	A±0.13	B±0.13	C±0.38	D±0.25	E±0.51	F±0.25
05/10	0.200	0.300	0.490	0.776	1.090	0.350	5.08	7.62	12.45	19.71	27.69	8.89
06/12	0.250	0.350	0.540	0.826	1.140	0.400	6.35	8.89	13.72	20.98	28.96	10.16
08/16	0.350	0.450	0.640	0.926	1.240	0.500	8.89	11.43	16.26	23.52	31.50	12.70
09/18	0.400	0.500	0.690	0.976	1.290	0.550	10.16	12.70	17.53	24.79	32.77	13.97
10/20	0.450	0.550	0.740	1.026	1.340	0.600	11.43	13.97	18.80	26.06	34.04	15.24
13/26	0.600	0.700	0.890	1.176	1.490	0.750	15.24	17.78	22.61	29.87	37.85	19.05
14/28	0.650	0.750	0.940	1.226	1.540	0.800	16.51	19.05	23.88	31.14	39.12	20.32
15/30	0.700	0.800	0.990	1.276	1.590	0.850	17.78	20.32	25.15	32.41	40.39	21.59
16/32	0.750	0.850	1.040	1.326	1.640	0.900	19.05	21.59	26.42	33.68	41.66	22.86
20/40	0.950	1.050	1.240	1.526	1.840	1.100	24.13	26.67	31.50	38.76	46.74	27.94
22/44	1.050	1.150	1.340	1.626	1.940	1.200	26.67	29.21	34.04	41.30	49.28	30.48
24/48	1.150	1.250	1.440	1.726	2.040	1.300	29.21	31.75	36.58	43.84	51.82	33.02
25/50	1.200	1.300	1.490	1.776	2.090	1.350	30.48	33.02	37.85	45.11	53.09	34.29
28/56	1.350	1.450	1.640	1.926	2.240	1.500	34.29	36.83	41.66	48.92	56.90	38.10
30/60	1.450	1.550	1.740	2.026	2.340	1.600	36.83	39.37	44.20	51.46	59.44	40.64
34/68	1.650	1.750	1.940	2.226	2.540	1.800	41.91	44.45	49.28	56.54	64.52	45.72
35/70	1.700	1.800	1.990	2.276	2.590	1.850	43.18	45.72	50.55	57.81	65.79	46.99
40/80	1.950	2.050	2.240	2.526	2.840	2.100	49.53	52.07	56.90	64.16	72.14	53.34
41/82*	2.000	2.100	2.290	2.576	2.890	2.150	50.80	53.34	58.17	65.43	73.41	54.61
44/88	2.150	2.250	2.440	2.726	3.040	2.300	54.61	57.15	61.98	69.24	77.22	58.42
45/90	2.200	2.300	2.490	2.776	3.090	2.350	55.88	58.42	63.25	70.51	78.49	59.69
50/100	2.450	2.550	2.740	3.026	3.340	2.600	62.23	64.77	69.60	76.86	84.84	66.04
55/110	2.700	2.800	2.990	3.276	3.590	2.850	68.58	71.12	75.95	83.21	91.19	72.39
60/120	2.950	3.050	3.240	3.526	3.840	3.100	74.93	77.47	82.30	89.56	97.54	78.74
62/124	3.050	3.150	3.340	3.626	3.940	3.200	77.47	80.01	84.84	92.10	100.08	81.28
64/128	3.150	3.250	3.440	3.726	4.040	3.300	80.01	82.55	87.38	94.64	102.62	83.82
65/130	3.200	3.300	3.490	3.776	4.090	3.350	81.28	83.82	88.65	95.91	103.89	85.09
66/132	3.250	3.350	3.540	3.826	4.140	3.400	82.55	85.09	89.92	97.18	105.16	86.36
70/140	3.450	3.550	3.740	4.026	4.340	3.600	87.63	90.17	95.00	102.26	110.24	91.44
75/150	3.700	3.800	3.990	4.276	4.590	3.850	93.98	96.52	101.35	108.61	116.59	97.79
80/160	3.950	4.050	4.240	4.526	4.840	4.100	100.33	102.87	107.70	114.96	122.94	104.14
81/162	4.000	4.100	4.290	4.576	4.890	4.150	101.60	104.14	108.97	116.23	124.21	105.41
85/170*	4.200	4.300	4.490	4.776	5.090	4.350	106.68	109.22	114.05	121.31	129.29	110.49
90/180	4.450	4.550	4.740	5.026	5.340	4.600	113.03	115.57	120.40	127.66	135.64	116.84
92/184*	4.550	4.650	4.840	5.126	5.440	4.700	115.57	118.11	122.94	130.20	138.18	119.38
95/190	4.700	4.800	4.990	5.276	5.590	4.850	119.38	121.92	126.75	134.01	141.99	123.19
96/192*	4.750	4.850	5.040	5.326	5.640	4.900	120.65	123.19	128.02	135.28	143.26	124.46
100/200	4.950	5.050	5.240	5.526	5.840	5.100	125.73	128.27	133.10	140.36	148.34	129.54
105/210	5.200	5.300	5.490	5.776	6.090	5.350	132.08	134.62	139.45	146.71	154.69	135.89
106/212	5.250	5.350	5.540	5.826	6.140	5.400	133.35	135.89	140.72	147.98	155.96	137.16
108/216*	5.350	5.450	5.640	5.926	6.240	5.500	135.89	138.43	143.26	150.52	158.50	139.70
110/220	5.450	5.550	5.740	6.026	6.340	5.600	138.43	140.97	145.80	153.06	161.04	142.24
120/240	5.950	6.050	6.240	'N' Mounting Only		6.100	151.13	153.67	158.50	'N' Mounting Only		154.94

* Consult factory for availability.

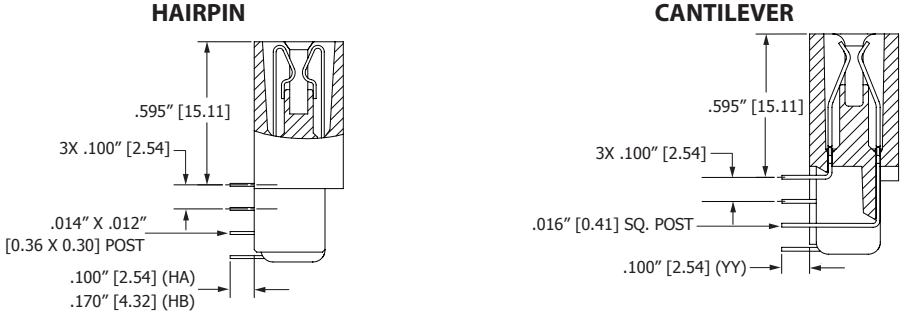
.050" [1.27 mm] Contact Centers, .915" [23.24 mm] Insulator Height, Right Angle for .031" [0.79 mm], .062" [1.57 mm] or .093" [2.36 mm] Mating PCB

SPECIFICATIONS

- Accommodates .031" ± .006" [0.79 mm ± 0.15 mm], .062" ± .008" [1.57 mm ± 0.20 mm] or .093" ± .008" [2.36 mm ± 0.20 mm] mating PCB
- PPS or PA9T insulator
- Molded-in key available
- High reliability/high cycle hairpin bellow & cantilever contacts
- 1 Amp current rating per contact for contacts fully energized
- UL Flammability Rating: 94V-0
- Operating Temperature: -65°C up to +200°C

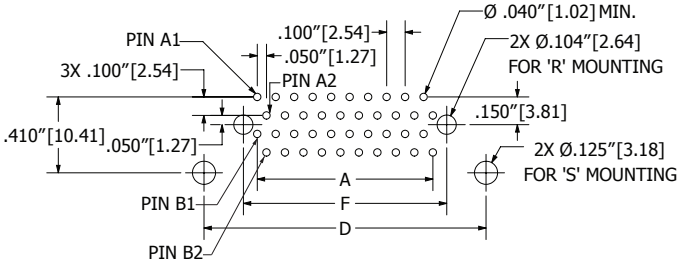


READOUT & TERMINATION TYPE



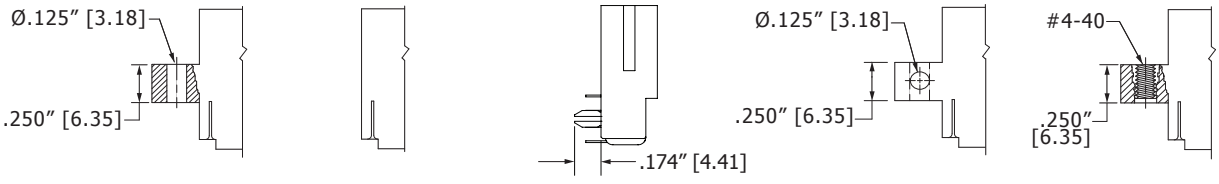
DUAL READOUT (D)

PCB LAYOUT



COMPONENT SIDE

MOUNTING STYLE



CLEARANCE HOLE (D) | **NO MOUNTING EARS (N)** | **NO MOUNTING EARS METAL BOARD LOCK(R)** | **SIDE MOUNTING (S)** | **THREADED INSERT (T)**

.050" [1.27 mm] Contact Centers, .915" [23.24 mm] Insulator Height, Right Angle for .031" [0.79 mm], .062" [1.57 mm] or .093" [2.36 mm] Mating PCB

PART NUMBER OPTIONS

G B B 10 D HA S - Sxxx

MATERIALS (INSULATOR/CONTACT)
- G = PA9T/Phosphor Bronze
- R = PPS/Phosphor Bronze
- J = PA9T/Beryllium Copper
- A = PPS/Beryllium Copper
- F = PPS/Spinodal**

Refer to Page 7 for Operating/Processing Temperatures

CONTACT FINISH - RoHS Compliant

All platings are Lead Free and have .000050" Nickel underplate

	Contact Surface	Termination
B =	.000010" Gold	.000100" Pure Tin, Matte
C =	.000030" Gold	.000100" Pure Tin, Matte
***M =	.000030" Gold	.000010" Gold Overall

***(YY termination only)

CONTACT CENTERS
- B = .050" [1.27 mm]

NUMBER OF CONTACT POSITIONS
See Chart Below

READOUT (Opposite Page)
- D = Dual

TERMINATION TYPE (Opposite Page)
- HA, YY = .100" [2.54 mm] Staggered Right Angle
- HB = .170" [4.32 mm] Staggered Right Angle

MOUNTING STYLE (Opposite Page)
- S = Side Mounting
- D = Flush Mounting
- N = No Mounting
- T = Flush Mounting With Threaded Insert
- R = Metal Board Lock

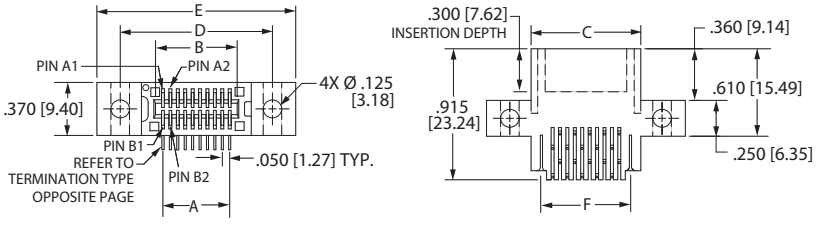
MODIFICATION CODE (Consult Factory)
OMIT FOR STANDARD
- -S1648 = .031"±.006" [0.79 ± 0.15] Mating PCB
- -S1763 = .093"±.008" [2.36 ± 0.20] Mating PCB
(For HA & HB Termination Only)

**** Consult factory for special soldering guidelines. YY termination with 'M' plating only.**

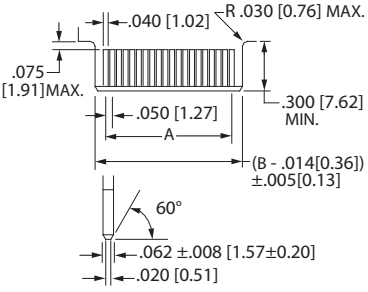
DIMENSIONS

Dimensions in [ ] are in millimeters, all others are in inches.

(S) MOUNTING SHOWN



CARD LAYOUT



POSITIONS/ CONTACTS	INCHES						MILLIMETERS					
	A±.005	B±.005	C±.015	D±.010	E±.020	F±.010	A±0.13	B±0.13	C±0.38	D±0.25	E±0.51	F±0.25
05/10	0.200	0.300	0.490	0.776	1.090	0.350	5.08	7.62	12.45	19.71	27.69	8.89
06/12	0.250	0.350	0.540	0.826	1.140	0.400	6.35	8.89	13.72	20.98	28.96	10.16
08/16	0.350	0.450	0.640	0.926	1.240	0.500	8.89	11.43	16.26	23.52	31.50	12.70
09/18	0.400	0.500	0.690	0.976	1.290	0.550	10.16	12.70	17.53	24.79	32.77	13.97
10/20	0.450	0.550	0.740	1.026	1.340	0.600	11.43	13.97	18.80	26.06	34.04	15.24
13/26	0.600	0.700	0.890	1.176	1.490	0.750	15.24	17.78	22.61	29.87	37.85	19.05
14/28	0.650	0.750	0.940	1.226	1.540	0.800	16.51	19.05	23.88	31.14	39.12	20.32
15/30	0.700	0.800	0.990	1.276	1.590	0.850	17.78	20.32	25.15	32.41	40.39	21.59
16/32	0.750	0.850	1.040	1.326	1.640	0.900	19.05	21.59	26.42	33.68	41.66	22.86
20/40	0.950	1.050	1.240	1.526	1.840	1.100	24.13	26.67	31.50	38.76	46.74	27.94
22/44	1.050	1.150	1.340	1.626	1.940	1.200	26.67	29.21	34.04	41.30	49.28	30.48
24/48	1.150	1.250	1.440	1.726	2.040	1.300	29.21	31.75	36.58	43.84	51.82	33.02
25/50	1.200	1.300	1.490	1.776	2.090	1.350	30.48	33.02	37.85	45.11	53.09	34.29
28/56	1.350	1.450	1.640	1.926	2.240	1.500	34.29	36.83	41.66	48.92	56.90	38.10
30/60	1.450	1.550	1.740	2.026	2.340	1.600	36.83	39.37	44.20	51.46	59.44	40.64
34/68	1.650	1.750	1.940	2.226	2.540	1.800	41.91	44.45	49.28	56.54	64.52	45.72
35/70	1.700	1.800	1.990	2.276	2.590	1.850	43.18	45.72	50.55	57.81	65.79	46.99
40/80	1.950	2.050	2.240	2.526	2.840	2.100	49.53	52.07	56.90	64.16	72.14	53.34
41/82*	2.000	2.100	2.290	2.576	2.890	2.150	50.80	53.34	58.17	65.43	73.41	54.61
44/88	2.150	2.250	2.440	2.726	3.040	2.300	54.61	57.15	61.98	69.24	77.22	58.42
45/90	2.200	2.300	2.490	2.776	3.090	2.350	55.88	58.42	63.25	70.51	78.49	59.69
50/100	2.450	2.550	2.740	3.026	3.340	2.600	62.23	64.77	69.60	76.86	84.84	66.04
55/110	2.700	2.800	2.990	3.276	3.590	2.850	68.58	71.12	75.95	83.21	91.19	72.39
56/112	2.750	2.850	3.040	3.326	3.640	2.900	69.85	72.39	77.22	84.48	92.46	73.66
60/120	2.950	3.050	3.240	3.526	3.840	3.100	74.93	77.47	82.30	89.56	97.54	78.74
62/124	3.050	3.150	3.340	3.626	3.940	3.200	77.47	80.01	84.84	92.10	100.08	81.28
64/128	3.150	3.250	3.440	3.726	4.040	3.300	80.01	82.55	87.38	94.64	102.62	83.82
65/130	3.200	3.300	3.490	3.776	4.090	3.350	81.28	83.82	88.65	95.91	103.89	85.09
66/132	3.250	3.350	3.540	3.826	4.140	3.400	82.55	85.09	89.92	97.18	105.16	86.36
70/140	3.450	3.550	3.740	4.026	4.340	3.600	87.63	90.17	95.00	102.26	110.24	91.44
75/150	3.700	3.800	3.990	4.276	4.590	3.850	93.98	96.52	101.35	108.61	116.59	97.79
79/158	3.900	4.000	4.190	4.476	4.790	4.050	99.06	101.60	106.43	113.69	121.67	102.87
80/160	3.950	4.050	4.240	4.526	4.840	4.100	100.33	102.87	107.70	114.96	122.94	104.14
81/162	4.000	4.100	4.290	4.576	4.890	4.150	101.60	104.14	108.97	116.23	124.21	105.41
85/170*	4.200	4.300	4.490	4.776	5.090	4.350	106.68	109.22	114.05	121.31	129.29	110.49
90/180	4.450	4.550	4.740	5.026	5.340	4.600	113.03	115.57	120.40	127.66	135.64	116.84
92/184*	4.550	4.650	4.840	5.126	5.440	4.700	115.57	118.11	122.94	130.20	138.18	119.38
95/190	4.700	4.800	4.990	5.276	5.590	4.850	119.38	121.92	126.75	134.01	141.99	123.19
96/192*	4.750	4.850	5.040	5.326	5.640	4.900	120.65	123.19	128.02	135.28	143.26	124.46
100/200	4.950	5.050	5.240	5.526	5.840	5.100	125.73	128.27	133.10	140.36	148.34	129.54
105/210	5.200	5.300	5.490	5.776	6.090	5.350	132.08	134.62	139.45	146.71	154.69	135.89
106/212	5.250	5.350	5.540	5.826	6.140	5.400	133.35	135.89	140.72	147.98	155.96	137.16
108/216*	5.350	5.450	5.640	5.926	6.240	5.500	135.89	138.43	143.26	150.52	158.50	139.70
110/220	5.450	5.550	5.740	6.026	6.340	5.600	138.43	140.97	145.80	153.06	161.04	142.24
120/240	5.950	6.050	6.240	'N' Mounting Only		6.100	151.13	153.67	158.50	'N' Mounting Only		154.94

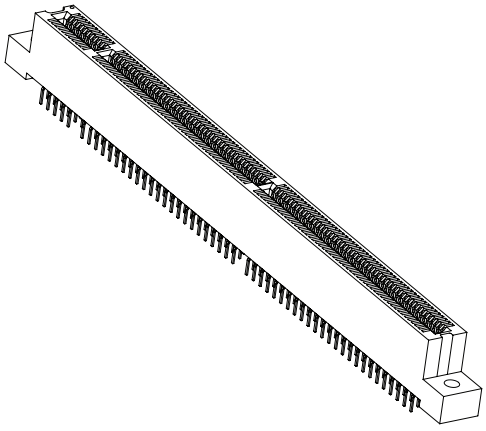
* Consult factory for availability for sizes not shown.

.050" [1.27 mm] Contact Centers, .610" [15.49 mm] Insulator Height, [MCA] Dip Solder/Card Extender/SMT

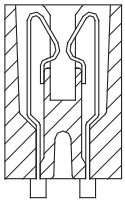
Industry Standard Part

SPECIFICATIONS

- Accommodates .062" ± .008" [1.57 mm ± 0.20 mm] PC board (Consult factory for other board thicknesses)
- PPS or PA9T insulator
- Molded-in key available
- High reliability/high cycle hairpin bellow contacts
- 1 Amp current rating per contact for contacts fully energized
- UL Flammability Rating: 94V-0



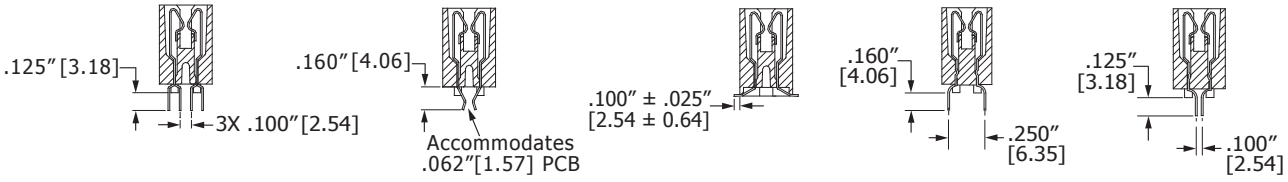
READOUT



DUAL (D)

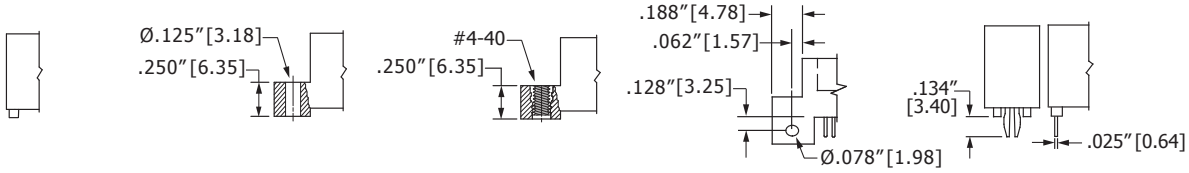
TERMINATION TYPE

Consult Factory for PC Board Layouts



STAGGERED DIP SOLDER (HH) | **CARD EXTENDER (HR)** | **SURFACE MOUNT (HF)** | **DIP SOLDER (HL)** | **DIP SOLDER (HN)**

MOUNTING STYLE



NO MOUNTING EARS (N) | **FLUSH MOUNTING (D)** | **FLUSH MOUNTING WITH THREADED INSERT(T)** | **STRADDLE MOUNT (Q)** | **BOARD LOCK (R) (with no mounting ears)**

.050" [1.27 mm] Contact Centers, .610" [15.49 mm] Insulator Height, [MCA] Dip Solder/Card Extender/SMT

Industry Standard Part

PART NUMBER OPTIONS

G B B 56 D HH D - S578

MATERIALS (INSULATOR/CONTACT)
- G = PA9T/Phosphor Bronze
- R = PPS/Phosphor Bronze
- J = PA9T/Beryllium Copper
- A = PPS/Beryllium Copper

Refer to Page 7 for Operating/Processing Temperatures

CONTACT FINISH - RoHS Compliant

All platings are Lead Free and have .000050" Nickel underplate

	Contact Surface	Termination
B =	.000010" Gold	.000100" Pure Tin, Matte
C =	.000030" Gold	.000100" Pure Tin, Matte

CONTACT CENTERS
- B = .050" [1.27 mm]

NUMBER OF CONTACT POSITIONS
56, 66, 91, 106

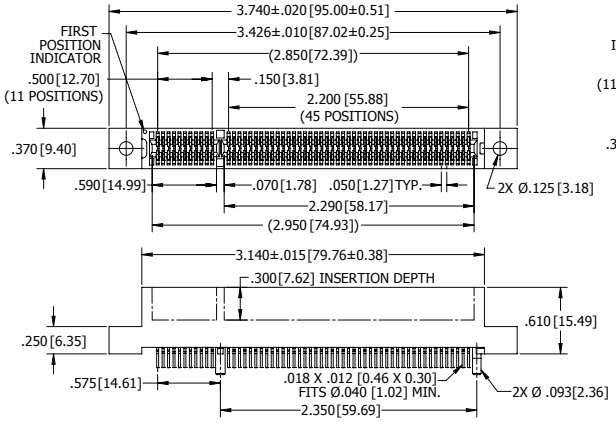
MODIFICATION (Consult Factory)
- -S578 = Card Slot Barriers With Guide Posts
- -S621 = Card Slot Barriers Without Guide Posts

MOUNTING STYLE
- N = No Mounting
- D = Flush Mounting
- T = Flush Mounting With Threaded Insert
- Q = Straddle Mount (Card Extender Only - Consult Factory)
- R = Metal Board Lock

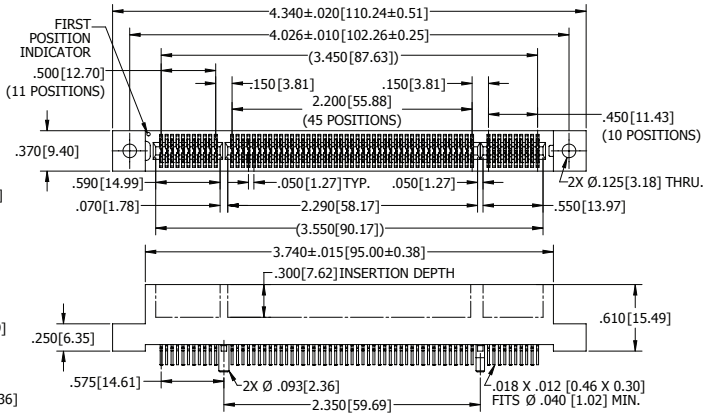
TERMINATION TYPE
- HH = Staggered Dip Solder
- HR = Card Extender
- HF = Surface Mount
- HL = .250" [6.35] X .160" [4.06] Dip Solder
- HN = .100" [2.54] X .125" [3.18] Dip Solder

READOUT
- D = Dual

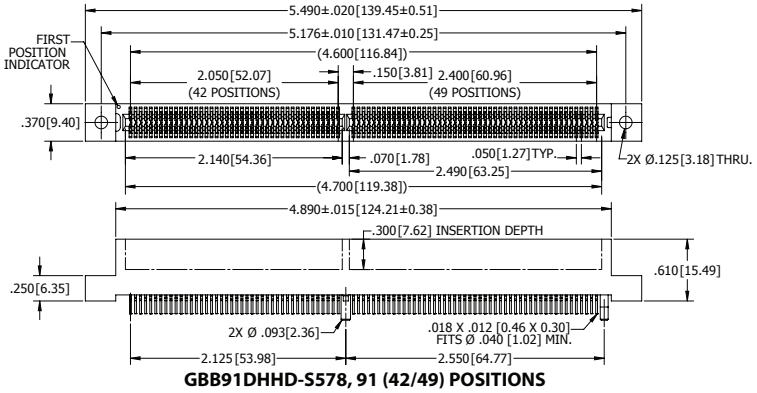
DIMENSIONS Dimensions in [ ] are in millimeters, all others are in inches.



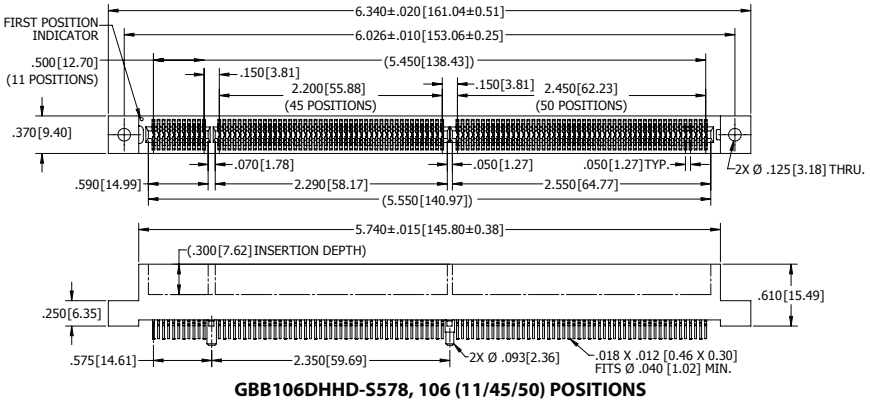
GBB56DHHD-S578, 56 (11/45) POSITIONS



GBB66DHHD-S578, 66 (11/45/10) POSITIONS



GBB91DHHD-S578, 91 (42/49) POSITIONS

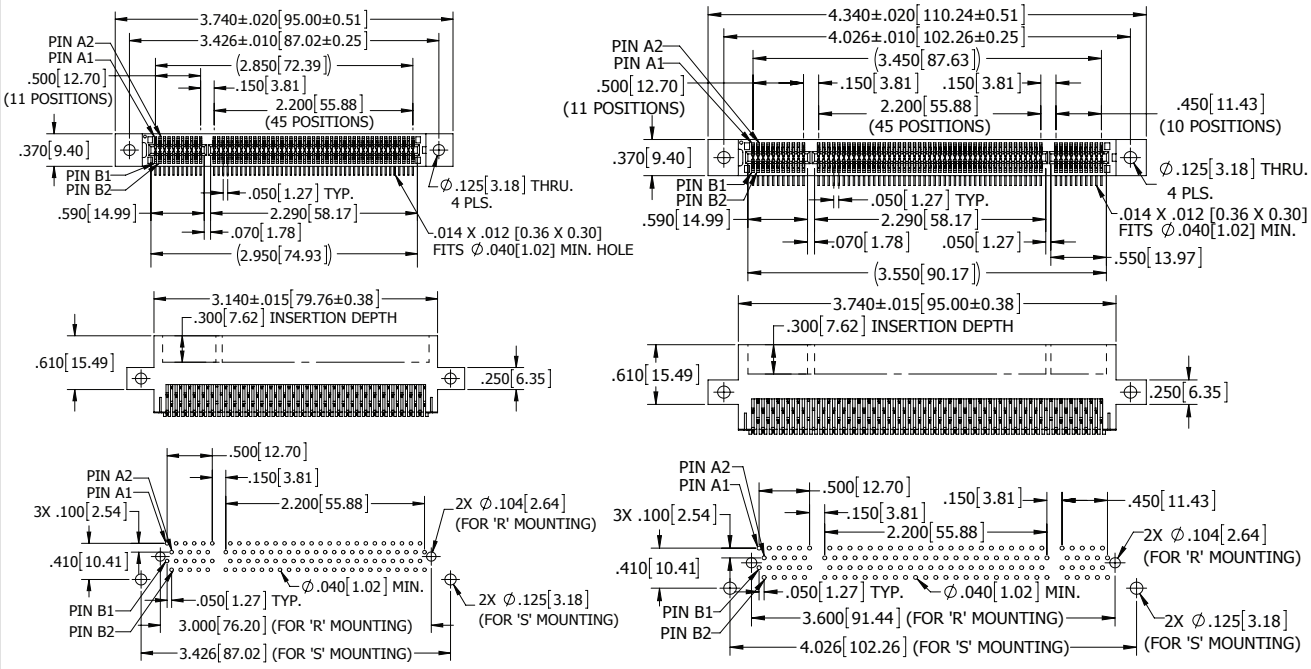


GBB106DHHD-S578, 106 (11/45/50) POSITIONS

.050" [1.27 mm] Contact Centers, .915" [23.24 mm] Insulator Height, [MCA] Right Angle

Industry Standard Part

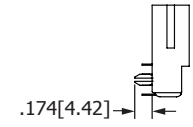
DIMENSIONS Dimensions in [ ] are in millimeters, all others are in inches.



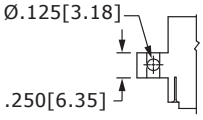
GBB56DHAS-S621, 56(11/45) POSITIONS

GBB66DHAS-S621, 66(11/45/10) POSITIONS

MOUNTING STYLE

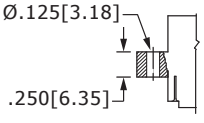


BOARD LOCK (R)
(with no mounting ears)
Consult Factory

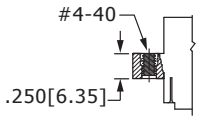


SIDE MOUNTING (S)

NO MOUNTING EARS (N)

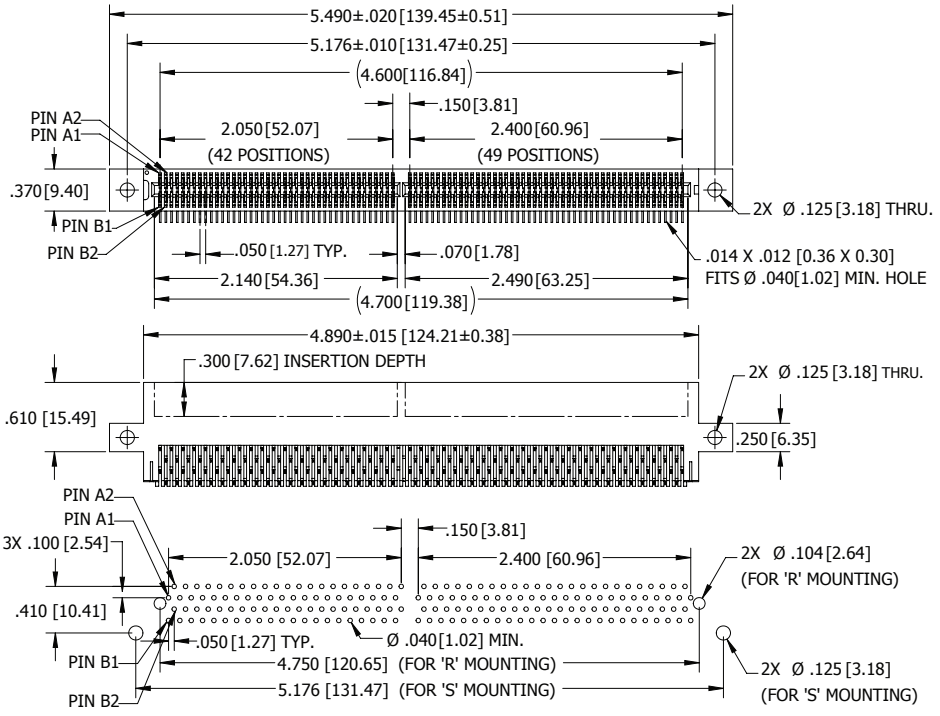


FLUSH MOUNTING (D)



THREADED INSERT (T)

DIMENSIONS Dimensions in [ ] are in millimeters, all others are in inches.



GBB91DHAS-S621, 91 (42/49) POSITIONS

.050" [1.27 mm] Contact Centers, .915" [23.24 mm] Insulator Height, [MCA] Right Angle

Industry Standard Part

PART NUMBER OPTIONS

G B B 56 D HA D - S621

MATERIALS (INSULATOR/CONTACT)
G = PA9T/Phosphor Bronze
R = PPS/Phosphor Bronze
J = PA9T/Beryllium Copper
A = PPS/Beryllium Copper
Refer to Page 7 for Operating/Processing Temperatures

CONTACT FINISH - RoHS Compliant
All platings are Lead Free and have .000050" Nickel underplate

	Contact Surface	Termination
B =	.000010" Gold	.000100" Pure Tin, Matte
C =	.000030" Gold	.000100" Pure Tin, Matte

CONTACT CENTERS
B = .050" [1.27 mm]

MODIFICATION (Consult Factory)
-S621 = Card Slot Barriers Without Guide Posts

MOUNTING STYLE (Opposite Page)
S = Side Mounting
D = Flush Mounting
N = No Mounting
T = Flush Mounting With Threaded Insert
R = Metal Board Lock

TERMINATION TYPE
HA = .100" [2.54 mm] Staggered Right Angle
HB = .170" [4.32 mm] Staggered Right Angle

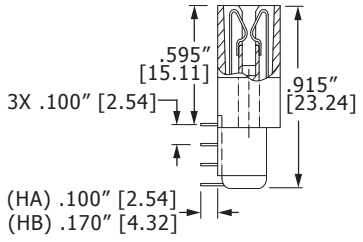
READOUT
D = Dual

NUMBER OF CONTACT POSITIONS
56 = 11/45
66 = 11/45/10
91 = 42/49
106 = 11/45/50

SPECIFICATIONS

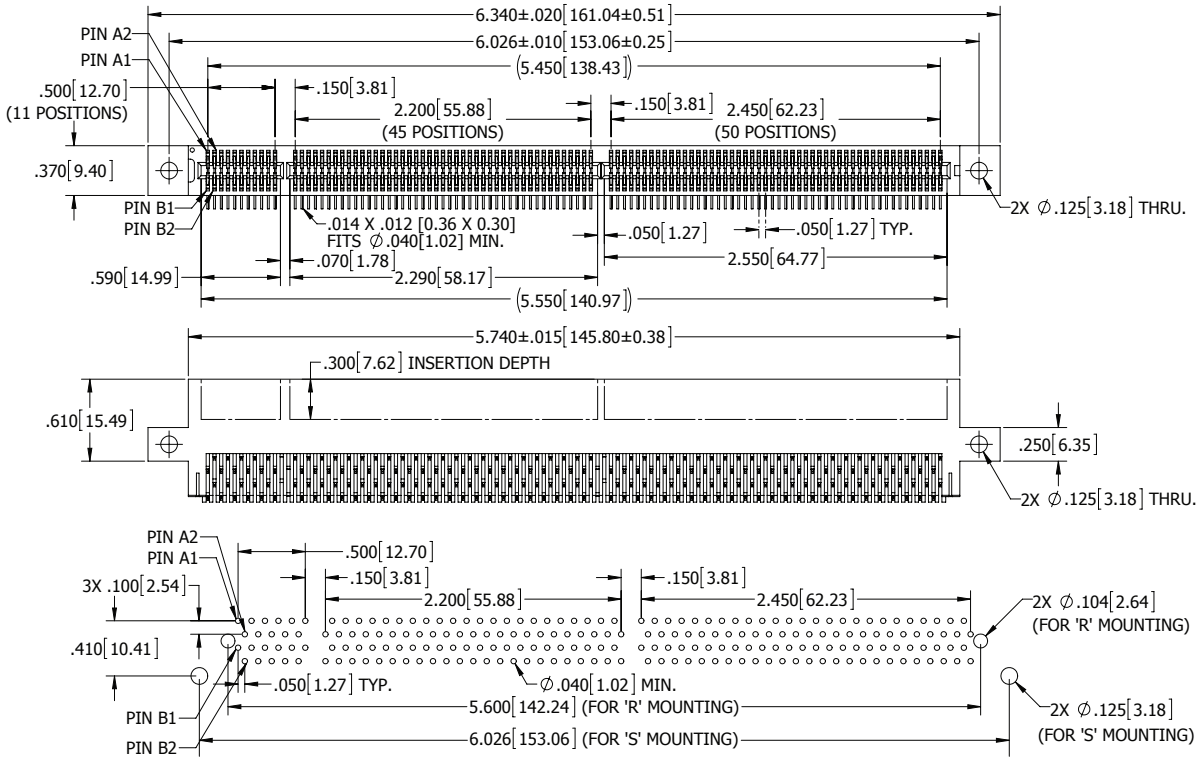
- Accommodates .062" ± .008" [1.57 mm ± 0.20 mm] PC board
- PPS or PA9T insulator
- Molded-in key available
- High reliability/high cycle hairpin bellow contacts
- 1 Amp current rating per contact for contacts fully energized
- UL Flammability Rating: 94V-0

TERMINATION TYPE



DIMENSIONS

Dimensions in [ ] are in millimeters, all others are in inches.



BOARD LAYOUT, CONNECTOR SIDE
GBB106DHAS-S621, 106 (11/45/50) POSITIONS

SULLINS

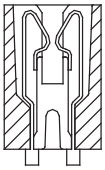
.050" [1.27 mm] Contact Centers, .610" [15.49 mm] Insulator Height, [PCI] Dip Solder/Card Extender/SMT

Industry Standard Part

SPECIFICATIONS

- Accommodates .062" ± .008" [1.57 mm ± 0.20 mm] PC board
- PPS or PA9T insulator
- Molded-in key available
- High reliability/high cycle hairpin bellow contacts
- 1 Amp current rating per contact for contacts fully energized
- UL Flammability Rating: 94V-0

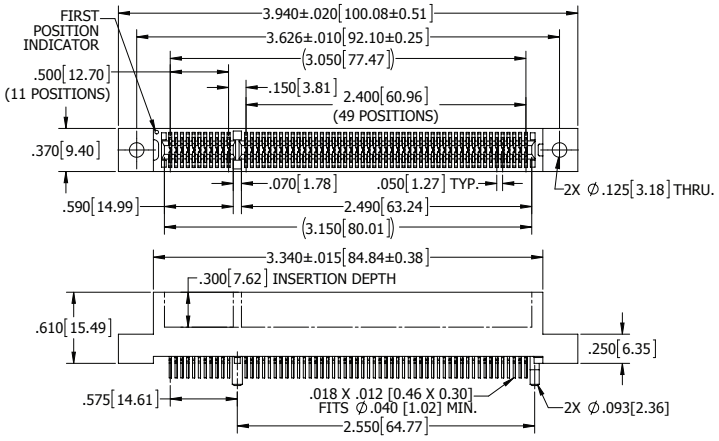
READOUT



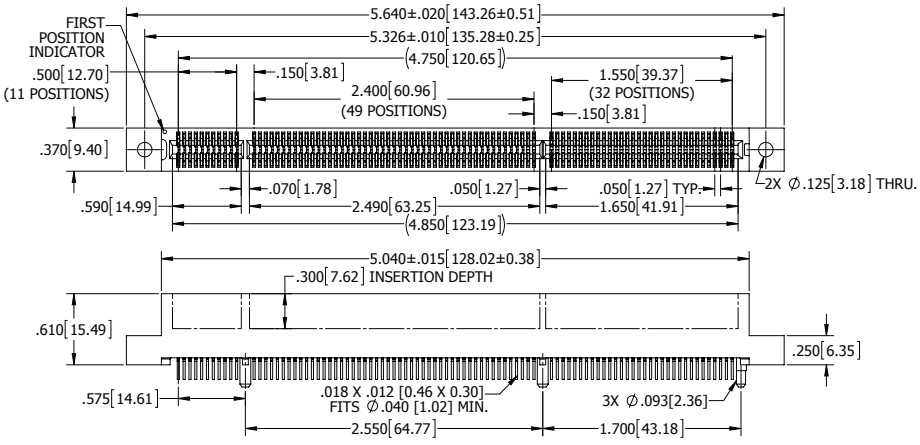
DUAL (D)

DIMENSIONS

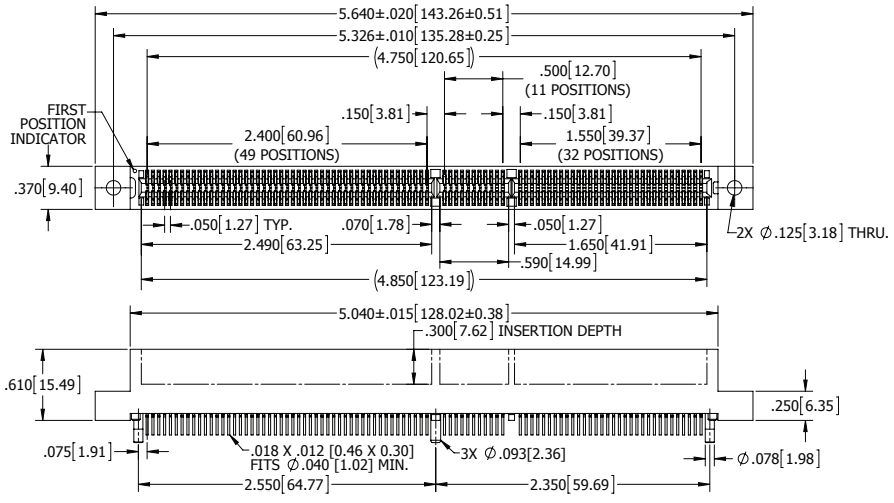
Dimensions in [ ] are in millimeters, all others are in inches.



GBB60DHHD-S578, 60 (11/49) POSITIONS,32 BIT, 3.3 OR 5 VOLT



GBB92DHHD-S330, 92 (11/49/32) POSITIONS, 64 BIT, 3.3 VOLT



GBB92DHHD-S378, 92 (49/11/32) POSITIONS, 64 BIT, 5 VOLT

.050" [1.27 mm] Contact Centers, .610" [15.49 mm] Insulator Height, [PCI] Dip Solder/Card Extender/SMT

Industry Standard Part

PART NUMBER OPTIONS

G B B 60 D HH D - S578

MATERIALS (INSULATOR/CONTACT)
- G = PA9T/Phosphor Bronze
- R = PPS/Phosphor Bronze
- J = PA9T/Beryllium Copper
- A = PPS/Beryllium Copper

Refer to Page 7 for Operating/Processing Temperatures

CONTACT FINISH - RoHS Compliant
All platings are Lead Free and have .000050" Nickel underplate

	Contact Surface	Termination
B =	.000010" Gold	.000100" Pure Tin, Matte
C =	.000030" Gold	.000100" Pure Tin, Matte

CONTACT CENTERS
- B = .050" [1.27 mm]

NUMBER OF CONTACT POSITIONS
- *60 = 11/49 (32 Bit, 3.3 or 5 Volt)
- 92 = 11/49/32 (64 Bit, 3.3 Volt)
- 92 = 49/11/32 (64 Bit, 5 Volt)

READOUT
- D = Dual

MODIFICATION (Consult Factory)

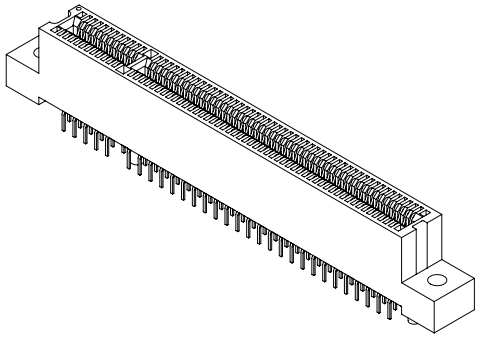
PCI WITH GUIDE POSTS
- *-S578 = 60 (11/49) Positions (32 Bit, 3.3 or 5 Volt)
- -S330 = 92 (11/49/32) Positions (64 Bit, 3.3 Volt)
- -S378 = 92 (49/11/32) Positions (64 Bit, 5 Volt)

PCI WITHOUT GUIDE POSTS
- *-S621 = 60 (11/49) Positions (32 Bit, 3.3 or 5 Volt)
- -S329 = 92 (11/49/32) Positions (64 Bit, 3.3 Volt)
- -S250 = 92 (49/11/32) Positions (64 Bit, 5 Volt)

MOUNTING STYLE
- D = Flush Mounting
- N = No Mounting
- T = Flush Mounting With Threaded Insert
- Q = Straddle Mount (Card Extender Only - Consult Factory)
- R = Metal Board lock

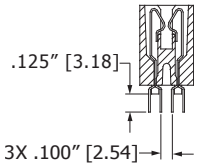
TERMINATION TYPE
- HH = Staggered Dip Solder
- HR = Card Extender
- HF = Surface Mount
- HL = .250" [6.35 mm] X .160" [4.06 mm] Dip Solder
- HN = .100" [2.54 mm] X .125" [3.18 mm] Dip Solder

*Turn connector or board 180° for 3.3 or 5 Volt

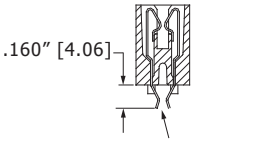


FOR PC BOARD LAYOUTS REFER TO www.sullinscorp.com

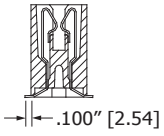
TERMINATION TYPE



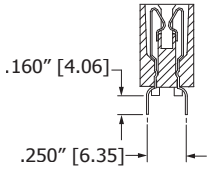
STAGGERED DIP SOLDER (HH)



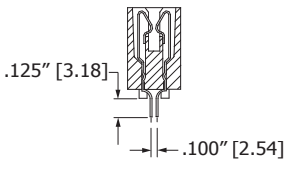
CARD EXTENDER (HR)



SURFACE MOUNT (HF)



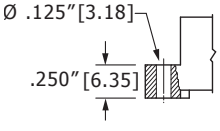
DIP SOLDER (HL)



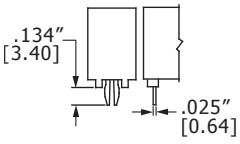
DIP SOLDER (HN)

MOUNTING STYLE

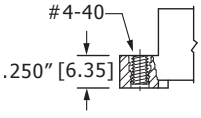
NO MOUNTING EARS (N)



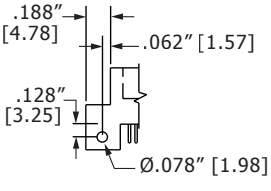
FLUSH MOUNTING (D)



METAL BOARD LOCK (with no mounting ears) (R)



FLUSH MOUNTING WITH THREADED INSERT (T)



STRADDLE MOUNT (Q) Formerly (Z)

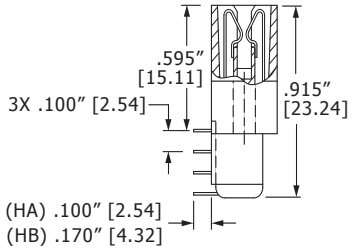
.050" [1.27 mm] Contact Centers, .915" [23.24 mm] Insulator Height, [PCI] Right Angle

Industry Standard Part

SPECIFICATIONS

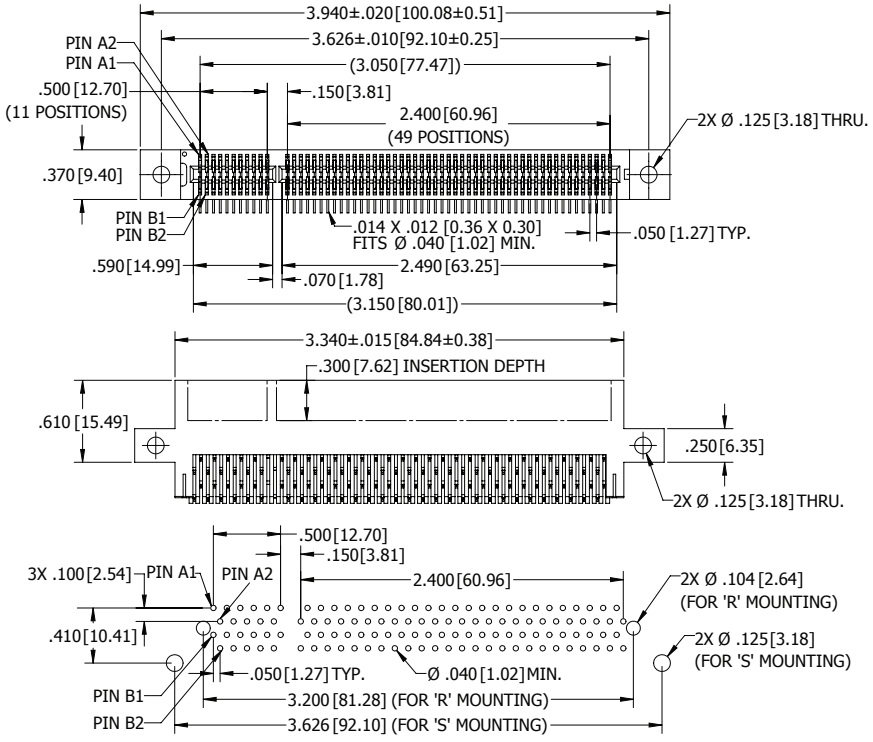
- Accommodates .062" ± .008" [1.57 mm ± 0.20 mm] PC board
- PPS or PA9T insulator
- Molded-in key available
- High reliability/high cycle Hairpin bellow contacts
- 1 Amp current rating per contact for contacts fully energized
- UL Flammability Rating: 94V-0

TERMINATION TYPE



DIMENSIONS

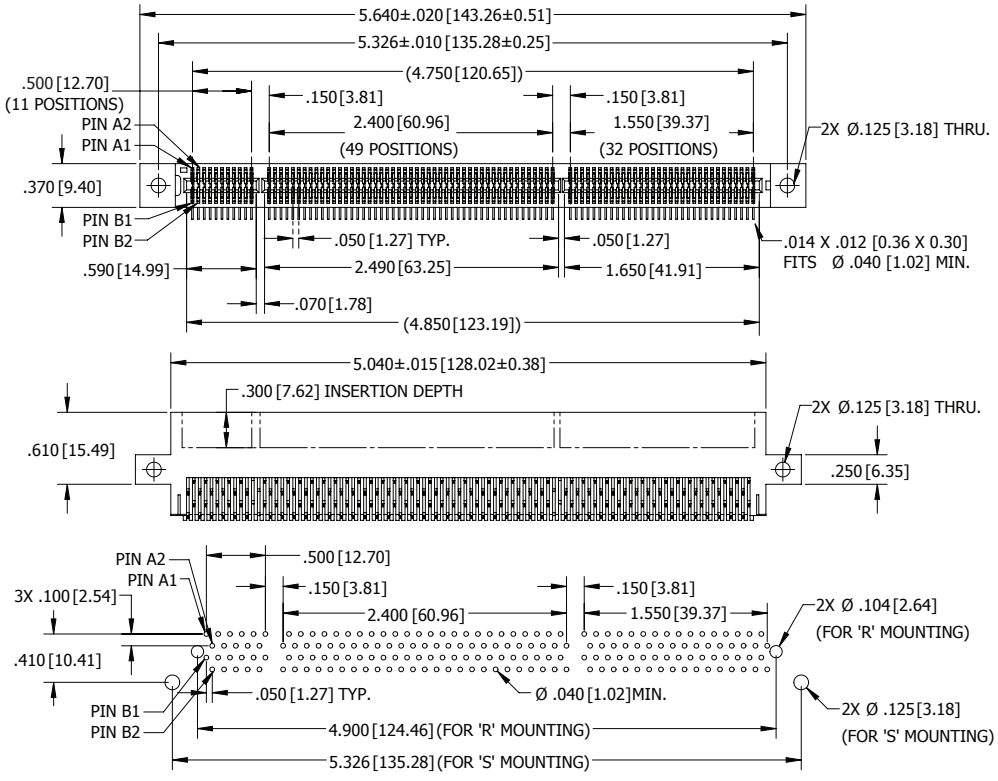
Dimensions in [ ] are in millimeters, all others are in inches.



BOARD LAYOUT, CONNECTOR SIDE
GBB60DHAS-S1962, 60 (11/49) POSITIONS, 32 BIT, 3.3 VOLT

DIMENSIONS

Dimensions in [ ] are in millimeters, all others are in inches.



BOARD LAYOUT, CONNECTOR SIDE
GBB92DHAS-S329, 92 (11/49/32) POSITIONS, 64 BIT, 3.3 VOLT

.050" [1.27 mm] Contact Centers, .915" [23.24 mm] Insulator Height, [PCI] Right Angle

Industry Standard Part

PART NUMBER OPTIONS

G B B 60 D HA D - S793

MATERIALS (INSULATOR/CONTACT)
- G = PA9T/Phosphor Bronze
- R = PPS/Phosphor Bronze
- J = PA9T/Beryllium Copper
- A = PPS/Beryllium Copper

Refer to Page 7 for Operating/Processing Temperatures

CONTACT FINISH - RoHS Compliant
All platings are Lead Free and have .000050" Nickel underplate

	Contact Surface	Termination
B =	.000010" Gold	.000100" Pure Tin, Matte
C =	.000030" Gold	.000100" Pure Tin, Matte

CONTACT CENTERS
- B = .050" [1.27 mm]

NUMBER OF CONTACT POSITIONS
- 60 = 11/49 (32 Bit, 3.3 or 5 Volt)
- 92 = 11/49/32 (64 Bit, 3.3 Volt)
- 92 = 49/11/32 (64 Bit, 5 Volt)

MODIFICATION (Consult Factory)
- -S1962 = 60(11/49) Positions (32 Bit, 3.3 Volt), replaces -S621
- -S1957 = 60(49/11) Positions (32 Bit, 5 Volt), replaces -S621
- -S793 = 60(11/49) Positions Reverse Bend (32 Bit, 3.3 Volt)
- -S1958 = 60(49/11) Positions Reverse Bend (32 Bit, 5 Volt)
- -S329 = 92(11/49/32) Positions (64 Bit, 3.3 Volt)
- -S250 = 92(49/11/32) Positions (64 Bit, 5 Volt)

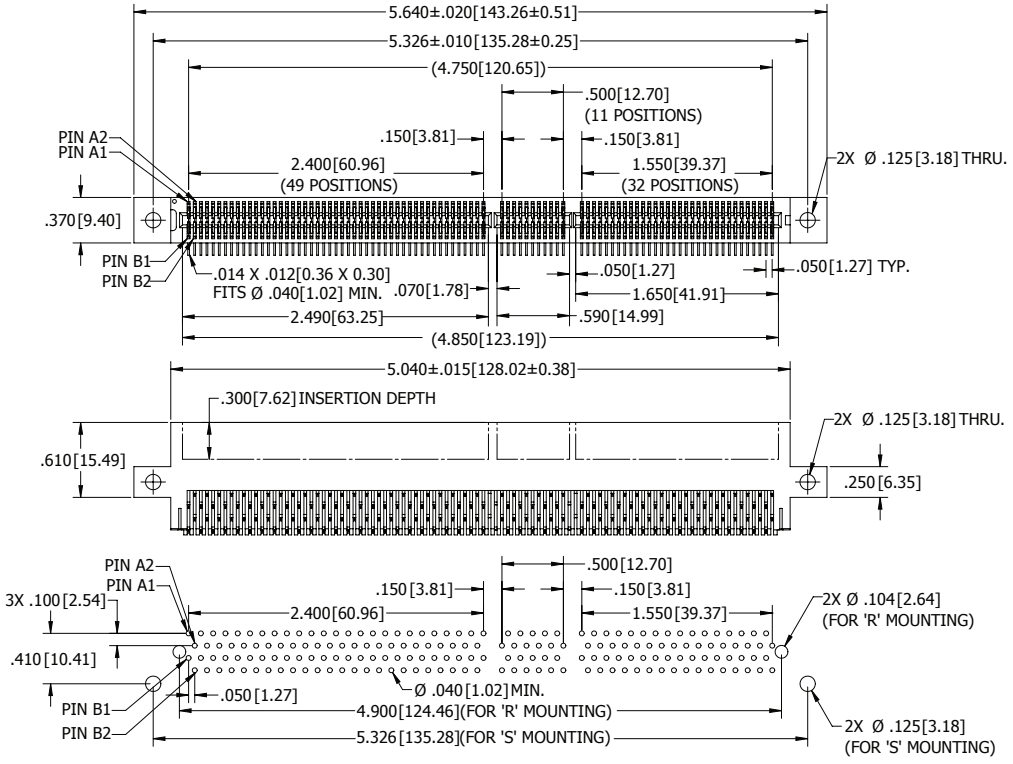
MOUNTING STYLE
- S = Side Mounting
- D = Flush Mounting
- N = No Mounting
- T = Flush Mounting With Threaded Insert
- R = Metal Board Lock

TERMINATION TYPE (Opposite Page)
- HA = .100" [2.54 mm] Staggered Dip Solder
- HB = .170" [4.32 mm] Staggered Dip Solder

READOUT
- D = Dual

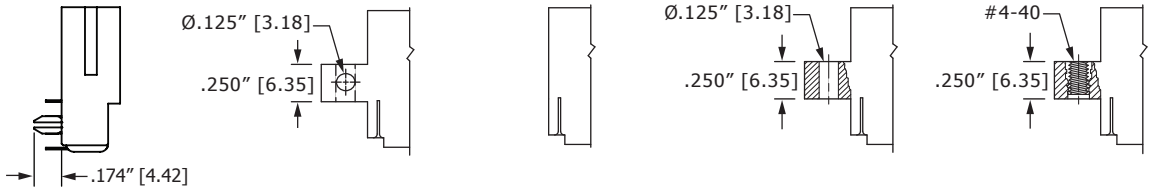
DIMENSIONS

Dimensions in [ ] are in millimeters, all others are in inches.



BOARD LAYOUT, CONNECTOR SIDE
GBB92DHAS-S250, 92 (49/11/32) POSITIONS, 64 BIT, 5 VOLT

MOUNTING STYLE



BOARD LOCK (R)
(with no mounting ears)

SIDE MOUNTING (S)

NO MOUNTING EARS (N)

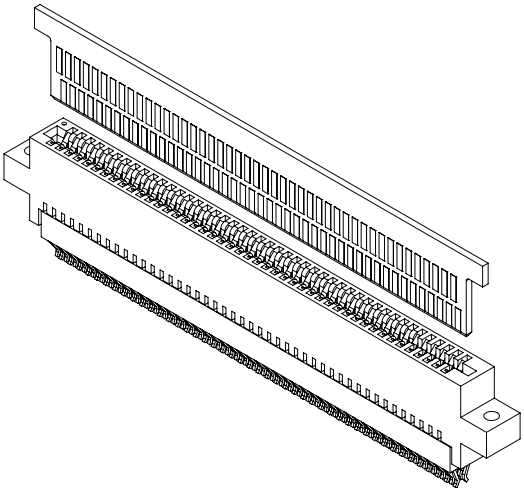
FLUSH MOUNTING (D)

THREADED INSERT (T)

Bi-Level High Density, .050" [1.27 mm] / .100" [2.54 mm] Contact Centers Card Extender, Dip Solder for .062" [1.57 mm] or .093" [2.36 mm] Mating PCB

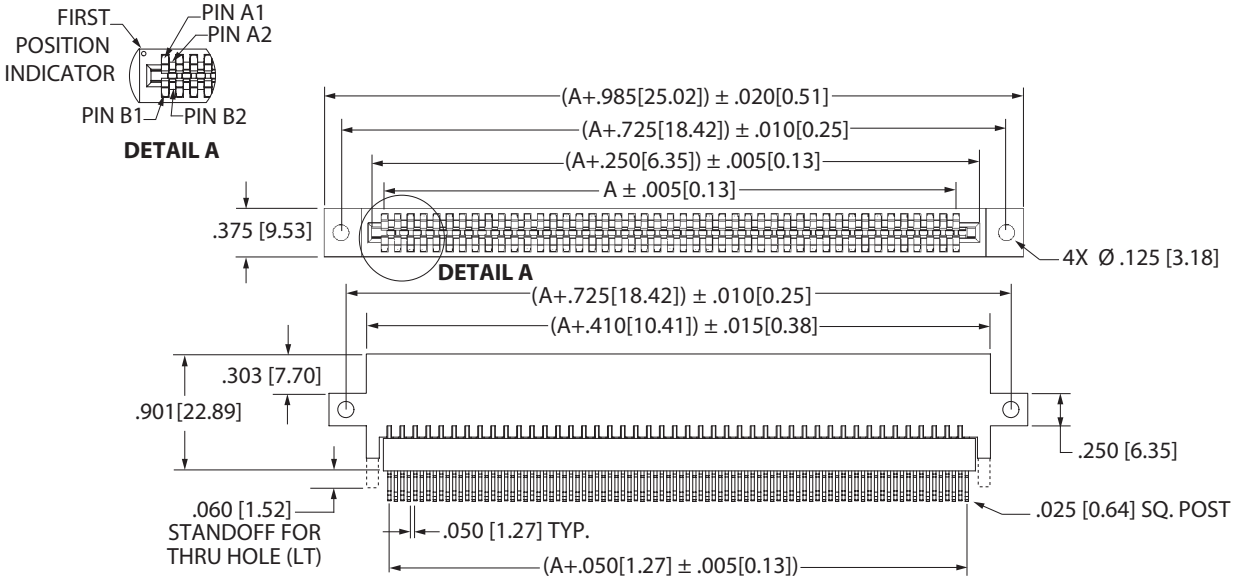
SPECIFICATIONS

- .050" [1.27 mm] Contact Center Spacing can replace .100" [2.54 mm] Contact Center part to double the number of contacts within the same area
- Backwards Compatible with Daughter Card Side
- Accommodates .062" ± .008" [1.57 mm ± 0.20 mm] or .093" ± .008" [2.36 mm ± 0.20 mm] mating PCB
- Contact Material: Beryllium Copper or Phosphor Bronze
- Body Material: PA9T
- UL Flammability Rating: 94V-0
- 3 Amps current rating for one contact energized
- High power-per-inch
- Operating Voltage: 225 VAC
- Consult Factory for PC board layouts/technical drawings

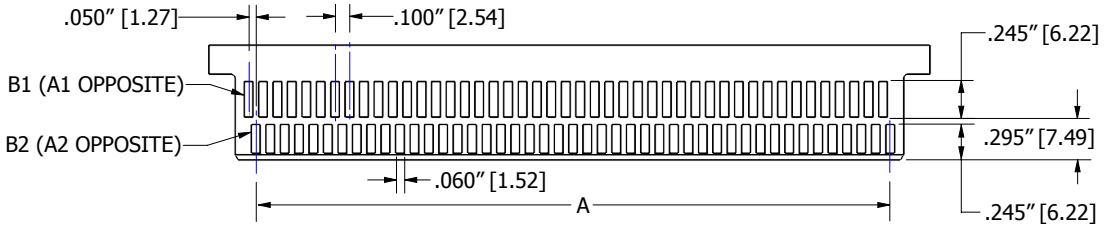


DIMENSIONS

Dimensions in [ ] are in millimeters, all others are in inches.



DAUGHTER CARD LAYOUT



Bi-Level High Density, .050" [1.27 mm] / .100" [2.54 mm] Contact Centers Card Extender, Dip Solder for .062" [1.57 mm] or .093" [2.36 mm] Mating PCB

PART NUMBER OPTIONS

J C B 10 D LT H - Sxxxx

MATERIALS (INSULATOR/CONTACT)
G = PA9T/Phosphor Bronze
J = PA9T/Beryllium Copper
Refer to Page 7 for Operating/Processing Temperatures

CONTACT FINISH - RoHS Compliant
All platings are Lead Free and have .000050" Nickel underplate

Contact Surface	Termination
B = .000010" Gold	.000100" Pure Tin, Matte
C = .000030" Gold	.000100" Pure Tin, Matte
Y = .000030" Gold	.000005" Gold

CONTACT CENTERS
B = .050" [1.27 mm] /.100" [2.54 mm]

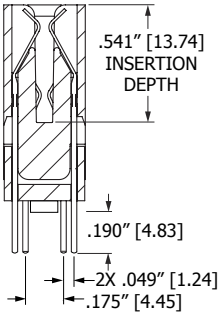
MODIFICATION CODE (Consult Factory)
OMIT FOR STANDARD
-S1176 = For .093"±.008" [2.36 ± 0.20] Thick Mating PCB

POSITIONS	DIMENSION A (See Opposite Page)		
	No. of Contacts	in	mm
06	12	0.200	5.08
08*	16	0.300	7.62
10	20	0.400	10.16
12	24	0.500	12.70
14*	28	0.600	15.24
16*	32	0.700	17.78
18*	36	0.800	20.32
20	40	0.900	22.86
22*	44	1.000	25.40
24	48	1.100	27.94
26*	52	1.200	30.48
28*	56	1.300	33.02
30	60	1.400	35.56
32*	64	1.500	38.10
34	68	1.600	40.64
36	72	1.700	43.18
38*	76	1.800	45.72
40	80	1.900	48.26
42	84	2.000	50.80
44	88	2.100	53.34
46*	92	2.200	55.88
48*	96	2.300	58.42
50	100	2.400	60.96
52	104	2.500	63.50
54*	108	2.600	66.04
56	112	2.700	68.58
58*	116	2.800	71.12
60	120	2.900	73.66
62*	124	3.000	76.20
64*	128	3.100	78.74
66*	132	3.200	81.28
68*	136	3.300	83.82
70	140	3.400	86.36
72	144	3.500	88.90
74*	148	3.600	91.44
76	152	3.700	93.98
78	156	3.800	96.52
80	160	3.900	99.06
82*	164	4.000	101.60
84*	168	4.100	104.14
86	172	4.200	106.68
88*	176	4.300	109.22
90	180	4.400	111.76
100	200	4.900	124.46
120†	240	5.900	149.86

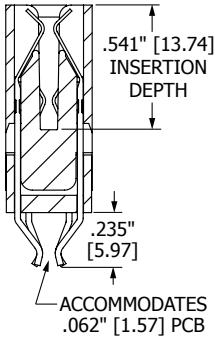
* Consult factory for availability. † Available in 'N' mounting only.

TERMINATION

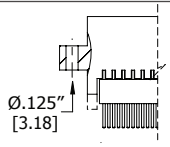
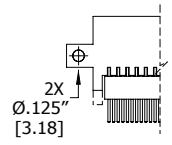
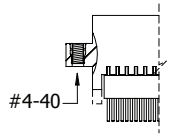
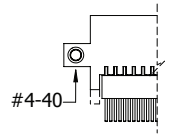
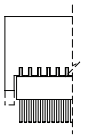
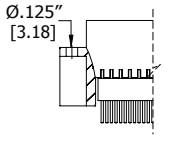
DIP SOLDER
LT



CARD EXTENDER
LR



MOUNTING STYLE

H	MOUNTING HOLES	
S	SIDE MOUNTING HOLES	
I	#4-40 THREADED INSERTS	
A	#4-40 THREADED INSERTS IN SIDE HOLES	
N	NO MOUNTING EARS	
W	FLUSH MOUNTING (LT TERMINATION ONLY)	

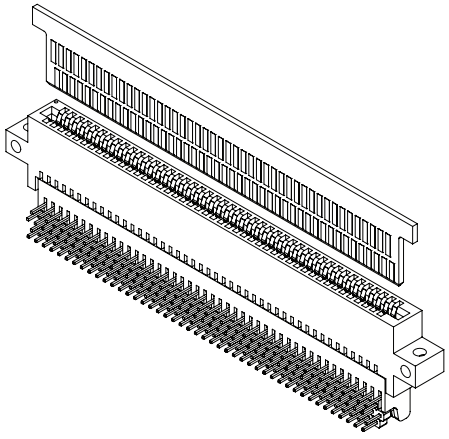
SULLINS

Bi-Level High Density, .050" [1.27 mm] / .100" [2.54 mm] Contact Centers Right Angle for .062" [1.57 mm] or .093" [2.36 mm] Mating PCB

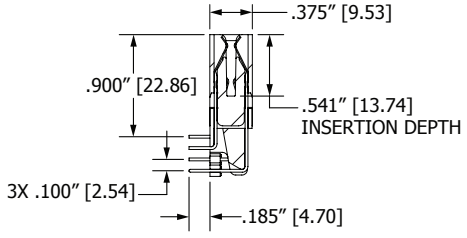
U.S. Patent NO. US 6,790,054 B1

SPECIFICATIONS

- .050" [1.27 mm] Contact Center Spacing can replace .100" [2.54 mm] Contact Center parts to double the number of contacts within the same area
- Backwards Compatible with Daughter Card Side
- Accommodates .062" ± .008" [1.57 mm ± 0.20 mm] or .093" ± .008" [2.36 mm ± 0.20 mm] mating PCB
- Contact Material: Beryllium Copper or Phosphor Bronze
- Body Material: PA9T
- UL Flammability Rating: 94V-0
- 3 Amps current rating for one contact energized
- High power-per-inch
- Operating Voltage: 225 VAC
- Consult Factory for PC board layouts/technical drawings



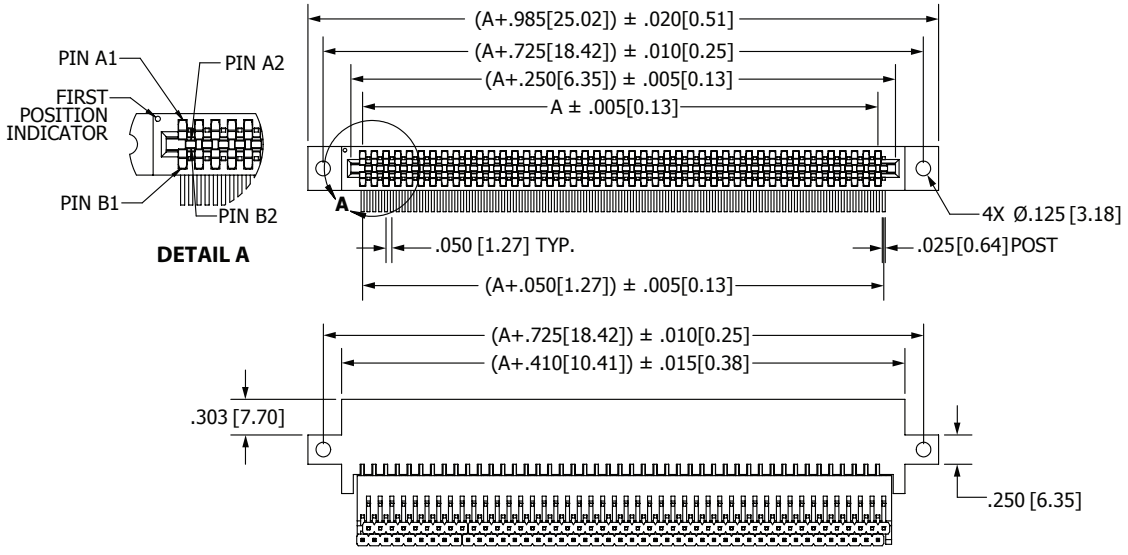
TERMINATION TYPE



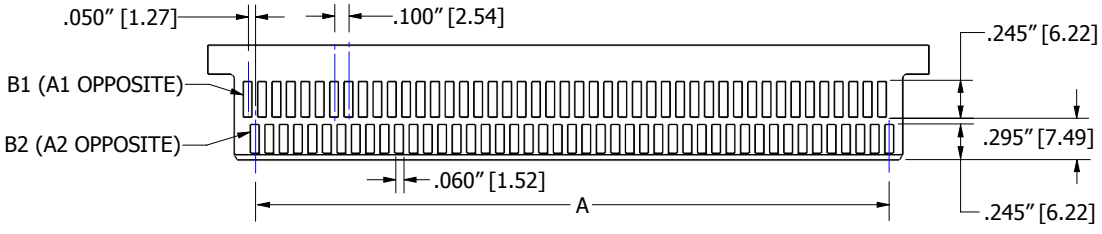
RIGHT ANGLE (KB)

DIMENSIONS

Dimensions in [ ] are in millimeters, all others are in inches.



DAUGHTER CARD LAYOUT



Bi-Level High Density, .050" [1.27 mm] / .100" [2.54 mm] Contact Centers
Right Angle for .062" [1.57 mm] or .093" [2.36 mm] Mating PCB

U.S. Patent NO. US 6,790,054 B1

PART NUMBER OPTIONS

J C B 10 D KB S - Sxxxx

MATERIALS (INSULATOR/CONTACT)
G = PA9T/Phosphor Bronze
J = PA9T/Beryllium Copper
Refer to Page 7 for Operating/Processing Temperatures

CONTACT FINISH - RoHS Compliant
All platings are Lead Free and have .000050" Nickel underplate

	Contact Surface	Termination
B =	.000010" Gold	.000100" Pure Tin, Matte
C =	.000030" Gold	.000100" Pure Tin, Matte
Y =	.000030" Gold	.000005" Gold

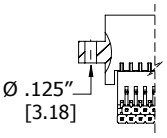
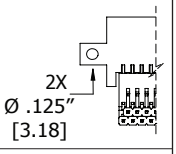
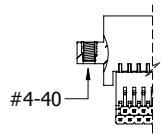
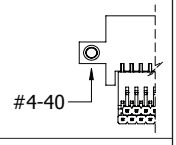
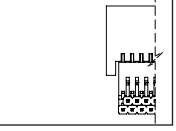
CONTACT CENTERS
B = .050" [1.27 mm] / .100" [2.54 mm]

OMIT FOR STANDARD
-S1176 = For .093"±.008" [2.36±0.20] Thick Mating PCB
-S1075 = Staggered Ears with Side Mounting Holes (Requires 'S' Mounting)
-S1076 = Staggered Ears with #4-40 Threaded Inserts (Requires 'A' Mounting)

POSITIONS	DIMENSION A (See Opposite Page)		
	No. of Contacts	in	mm
06	12	0.200	5.08
08*	16	0.300	7.62
10	20	0.400	10.16
12	24	0.500	12.70
14*	28	0.600	15.24
16*	32	0.700	17.78
18*	36	0.800	20.32
20	40	0.900	22.86
22*	44	1.000	25.40
24	48	1.100	27.94
26*	52	1.200	30.48
28*	56	1.300	33.02
30	60	1.400	35.56
32*	64	1.500	38.10
34	68	1.600	40.64
36	72	1.700	43.18
38*	76	1.800	45.72
40	80	1.900	48.26
42	84	2.000	50.80
44	88	2.100	53.34
46*	92	2.200	55.88
48*	96	2.300	58.42
50	100	2.400	60.96
52	104	2.500	63.50
54*	108	2.600	66.04
56	112	2.700	68.58
58*	116	2.800	71.12
60	120	2.900	73.66
62*	124	3.000	76.20
64*	128	3.100	78.74
66*	132	3.200	81.28
68*	136	3.300	83.82
70	140	3.400	86.36
72	144	3.500	88.90
74*	148	3.600	91.44
76	152	3.700	93.98
78	156	3.800	96.52
80	160	3.900	99.06
82*	164	4.000	101.60
84*	168	4.100	104.14
86	172	4.200	106.68
88*	176	4.300	109.22
90	180	4.400	111.76

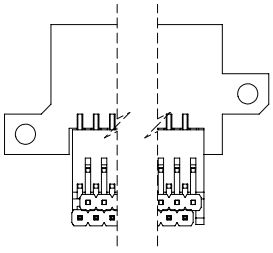
* Consult factory for availability.

MOUNTING STYLE

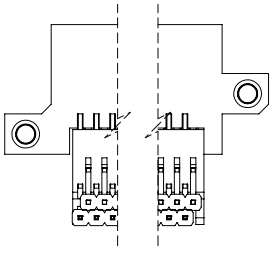
H	MOUNTING HOLES	
S	SIDE MOUNTING HOLES	
I	#4-40 THREADED INSERTS	
A	#4-40 THREADED INSERTS IN SIDE HOLES	
N	NO MOUNTING EARS	

MODIFICATION CODE

(CONSULT FACTORY)



STAGGERED EARS WITH SIDE MOUNTING HOLES (-S1075)



STAGGERED EARS WITH #4-40 THREADED INSERTS (-S1076)

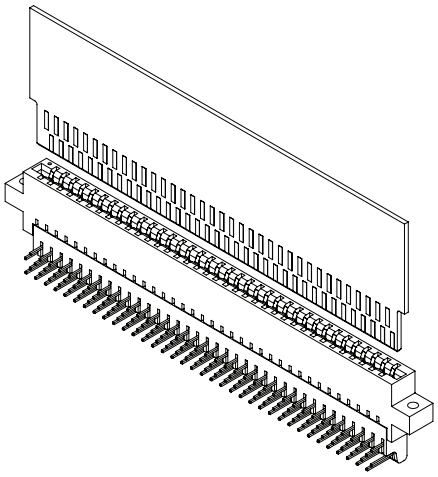
SULLINS

Bi-Level, .078" [1.98 mm] / .156" [3.96 mm] Contact Centers
High Density, Right Angle

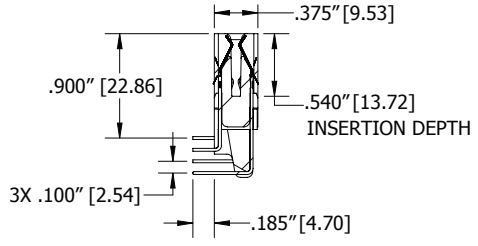
U.S. Patent No. US 6,790.054 B1

SPECIFICATIONS

- .078" [1.98 mm] Contact Center Spacing can replace .156" [3.96 mm] Contact Center parts to double the number of contacts within the same area
- Backwards Compatible with Daughter Card Side
- Accommodates .062" ± .008" [1.57 mm ± 0.20 mm] PC board
- Contact Material: Beryllium Copper or Phosphor Bronze
- Body Material: PA9T
- UL Flammability Rating: 94V-0
- 3 Amps current rating for one contact energized
- High power-per-inch
- 75 grams minimum contact normal force
- Operating Voltage: 450 VAC
- Consult Factory for PC board layouts/technical drawings



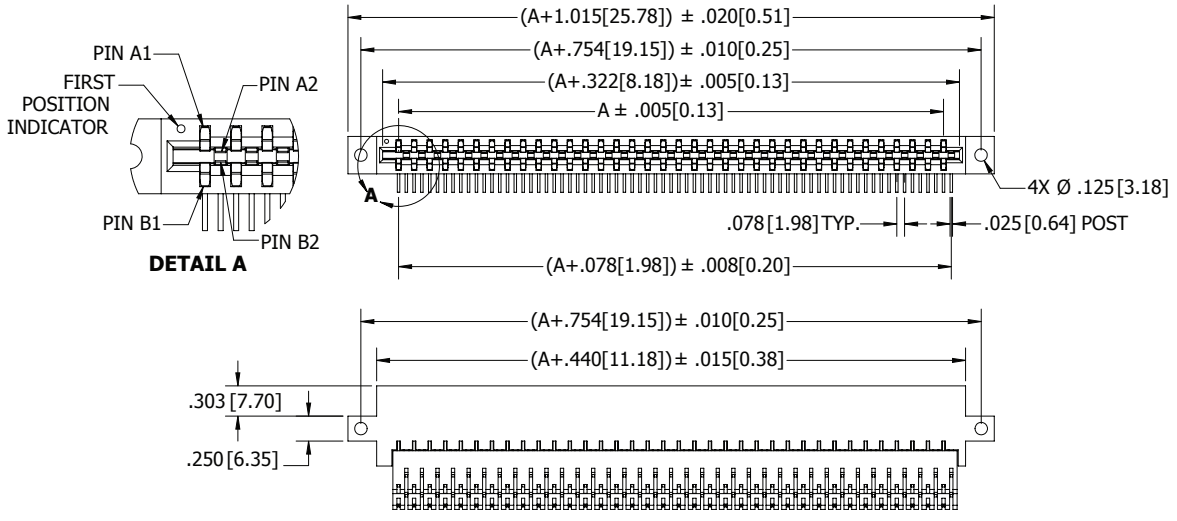
TERMINATION TYPE



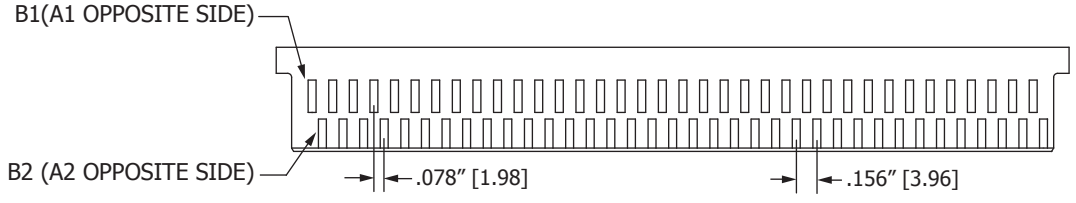
RIGHT ANGLE (KB)

DIMENSIONS

Dimensions in [ ] are in millimeters, all others are in inches.



DAUGHTER CARD LAYOUT



Bi-Level, .078" [1.98 mm] / .156" [3.96 mm] Contact Centers
High Density, Right Angle

U.S. Patent No. US 6,790.054 B1

PART NUMBER OPTIONS

J C K 10 D KB S - Sxxxx

MATERIALS (INSULATOR/CONTACT)
G = PA9T/Phosphor Bronze
J = PA9T/Beryllium Copper
Refer to Page 7 for Operating/Processing Temperatures

CONTACT FINISH - RoHS Compliant
All platings are Lead Free and have .000050" Nickel underplate

	Contact Surface	Termination
B =	.000010" Gold	.000100" Pure Tin, Matte
C =	.000030" Gold	.000100" Pure Tin, Matte
Y =	.000030" Gold	.000005" Gold

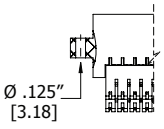
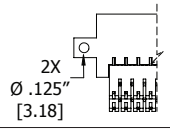
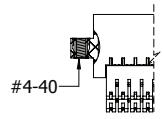
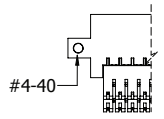
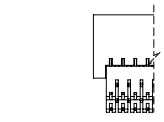
CONTACT CENTERS
K = .078" [1.98 mm] / .156" [3.96 mm]

OMIT FOR STANDARD
-S1075 = Staggered Ears with Side Mounting Holes (Requires 'S' Mounting)
-S1076 = Staggered Ears with #4-40 Threaded Inserts (Requires 'A' Mounting)

POSITIONS	DIMENSION A (See Opposite Page)		
	No. of Contacts	in	mm
06*	12	0.312	7.92
08*	16	0.468	11.89
10*	20	0.624	15.85
12*	24	0.780	19.81
14*	28	0.936	23.77
16*	32	1.092	27.74
18*	36	1.248	31.70
20	40	1.404	35.66
22*	44	1.560	39.62
24*	48	1.716	43.59
26*	52	1.872	47.55
28*	56	2.028	51.51
30*	60	2.184	55.47
32*	64	2.340	59.44
34*	68	2.496	63.40
36*	72	2.652	67.36
38*	76	2.808	71.32
40*	80	2.964	75.29
42*	84	3.120	79.25
44*	88	3.276	83.21
46*	92	3.432	87.17
48*	96	3.588	91.14
50*	100	3.744	95.10
52*	104	3.900	99.06
54*	108	4.056	103.02
56*	112	4.212	106.98
58*	116	4.368	110.95
60*	120	4.524	114.91
62*	124	4.680	118.87
64*	128	4.836	122.83
66*	132	4.992	126.80
68*	136	5.148	130.76
70*	140	5.304	134.72
72*	144	5.460	138.68

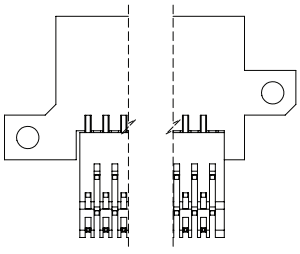
* Consult factory for availability.

MOUNTING STYLE

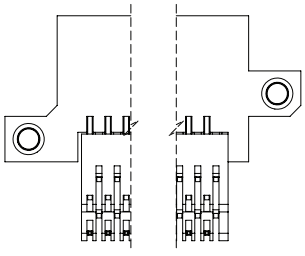
H	MOUNTING HOLES	
S	SIDE MOUNTING HOLES	
I	#4-40 THREADED INSERTS	
A	#4-40 THREADED INSERTS IN SIDE HOLES	
N	NO MOUNTING EARS	

MODIFICATION CODE

(CONSULT FACTORY)



STAGGERED EARS WITH SIDE MOUNTING HOLES (-S1075)

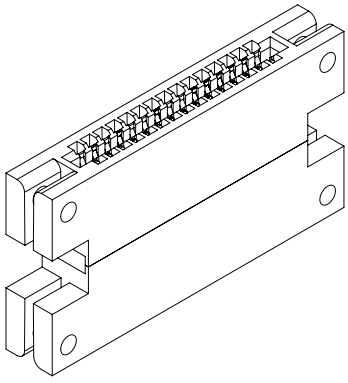


STAGGERED EARS WITH #4-40 THREADED INSERTS (-S1076)

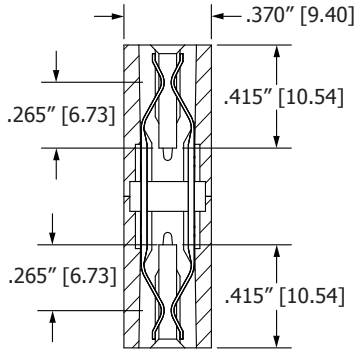
.100" [2.54 mm] Contact Centers, Dual Edge

SPECIFICATIONS

- Accommodates .062" ± .008" [1.57 mm ± 0.20 mm] PC board, both sides
- PBT or PPS
- 3 Amps current rating for one contact energized
- 30 milli Ohms maximum at rated current
- UL Flammability Rating: 94V-0

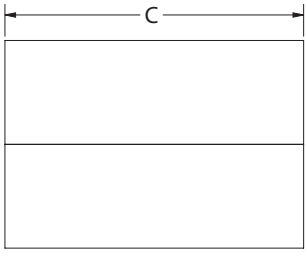


READOUT

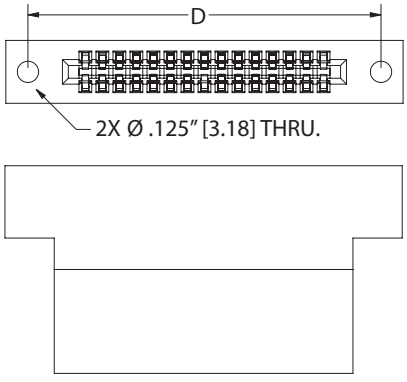


CROSS SECTION

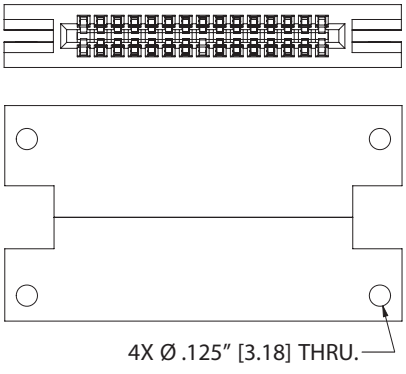
MOUNTING STYLE



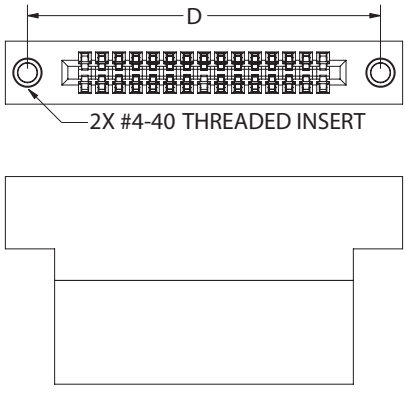
NO MOUNTING EARS (N)



FLUSH MOUNTING (D)



STRADDLE MOUNT (Q)



THREADED INSERT (I)

.100" [2.54 mm] Contact Centers, Dual Edge

PART NUMBER OPTIONS

E A C 50 F SL Q - Sxxx

MATERIALS (INSULATOR/CONTACT)
E = PBT/Phosphor Bronze (Standard)
R = PPS/Phosphor Bronze
H = PBT/Beryllium Copper
A = PPS/Beryllium Copper
Refer to Page 7 for Operating/Processing Temperatures

CONTACT FINISH - RoHS Compliant
All platings are Lead Free and have .000050" Nickel underplate
Contact Surface
A = .000030" Gold, both ends

CONTACT CENTERS
C = .100" [2.54 mm]

NUMBER OF CONTACT POSITIONS
See Chart Below (Contacts per Row)

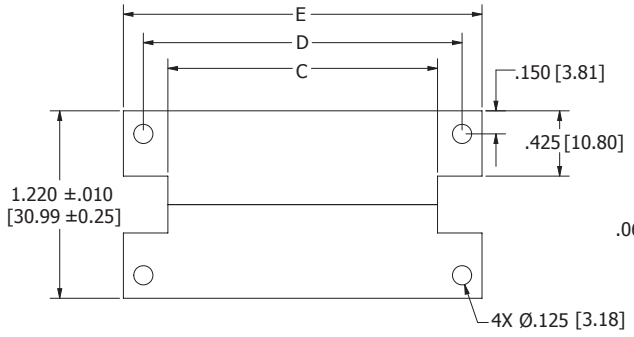
MODIFICATION CODE (Consult Factory)
OMIT FOR STANDARD

MOUNTING STYLE (Opposite Page)
Q = Straddle Mount
D = Flush Mounting
I = Threaded Insert
N = No Mounting

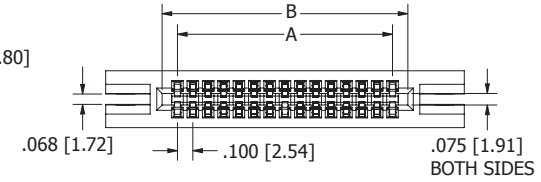
TERMINATION TYPE (Opposite Page)
SL = Single Level

READOUT (Opposite Page)
F = Dual Edge

DIMENSIONS
Dimensions in [ ] are in millimeters, all others are in inches.



_ AC _ _ FSLQ



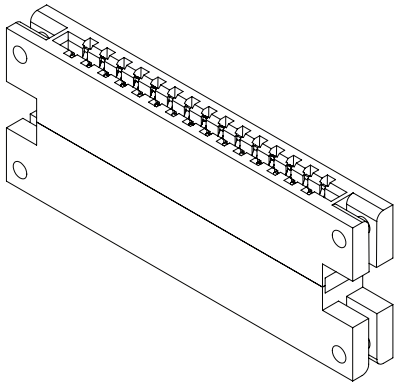
VIEW BOTH TOP AND BOTTOM SIDE

POSITIONS/ CONTACTS	A±.008[0.20]		B±.008[0.20]		C±.015[0.38]		D±.010[0.25]		E±.020[0.25]	
	in	mm	in	mm	in	mm	in	mm	in	mm
05/10	0.400	10.16	0.600	15.24	0.756	19.20	1.075	27.31	1.335	33.91
06/12	0.500	12.70	0.700	17.78	0.856	21.74	1.175	29.85	1.435	36.45
07/14	0.600	15.24	0.800	20.32	0.956	24.28	1.275	32.39	1.535	38.99
10/20	0.900	22.86	1.100	27.94	1.256	31.90	1.575	40.01	1.835	46.61
12/24	1.100	27.94	1.300	33.02	1.456	36.98	1.775	45.09	2.035	51.69
13/26	1.200	30.48	1.400	35.56	1.556	39.52	1.875	47.63	2.135	54.23
15/30	1.400	35.56	1.600	40.64	1.756	44.60	2.075	52.71	2.335	59.31
16/32	1.500	38.10	1.700	43.18	1.856	47.14	2.175	55.25	2.435	61.85
17/34	1.600	40.64	1.800	45.72	1.956	49.68	2.275	57.79	2.535	64.39
18/36	1.700	43.18	1.900	48.26	2.056	52.22	2.375	60.33	2.635	66.93
20/40	1.900	48.26	2.100	53.34	2.256	57.30	2.575	65.41	2.835	72.01
22/44	2.100	53.34	2.300	58.42	2.456	62.38	2.775	70.49	3.035	77.09
23/46	2.200	55.88	2.400	60.96	2.556	64.92	2.875	73.03	3.135	79.63
24/48	2.300	58.42	2.500	63.50	2.656	67.46	2.975	75.57	3.235	82.17
25/50	2.400	60.96	2.600	66.04	2.756	70.00	3.075	78.11	3.335	84.71
26/52	2.500	63.50	2.700	68.58	2.856	72.54	3.175	80.65	3.435	87.25
28/56	2.700	68.58	2.900	73.66	3.056	77.62	3.375	85.73	3.635	92.33
30/60	2.900	73.66	3.100	78.74	3.256	82.70	3.575	90.81	3.835	97.41
31/62	3.000	76.20	3.200	81.28	3.356	85.24	3.675	93.35	3.935	99.95
34/68	3.300	83.82	3.500	88.90	3.656	92.86	3.975	100.97	4.235	107.57
35/70	3.400	86.36	3.600	91.44	3.756	95.40	4.075	103.51	4.335	110.11
36/72	3.500	88.90	3.700	93.98	3.856	97.94	4.175	106.05	4.435	112.65
40/80	3.900	99.06	4.100	104.14	4.256	108.10	4.575	116.21	4.835	122.81
43/86	4.200	106.68	4.400	111.76	4.556	115.72	4.875	123.83	5.135	130.43
44/88	4.300	109.22	4.500	114.30	4.656	118.26	4.975	126.37	5.235	132.97
50/100	4.900	124.46	5.100	129.54	5.256	133.50	5.575	141.61	5.835	148.21
60/120	5.900	149.86	6.100	154.94	6.256	158.90	'N' MOUNTING ONLY			

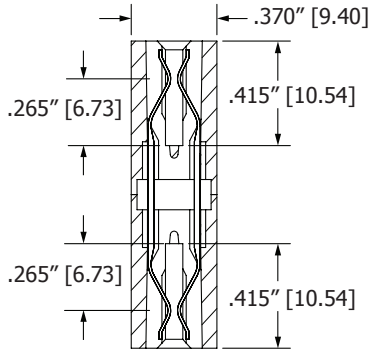
.156" [3.96 mm] Contact Centers, Dual Edge

SPECIFICATIONS

- Accommodates .062" ± .008" [1.57 mm ± 0.20 mm] PC board, both sides
- PBT or PPS
- 3 Amps current rating for one contact energized
- 30 milli Ohms maximum at rated current
- UL Flammability Rating: 94V-0

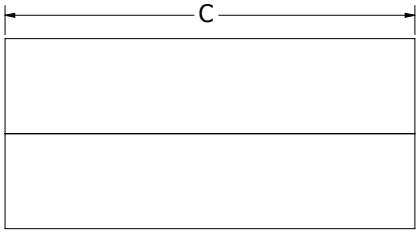


READOUT

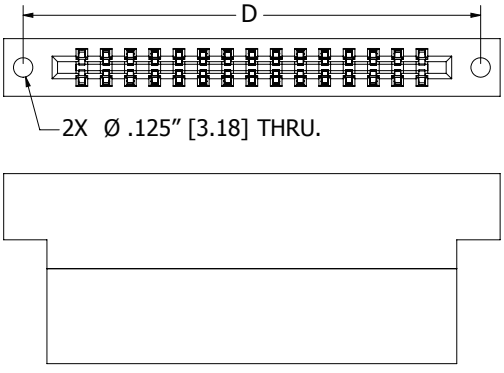


CROSS SECTION

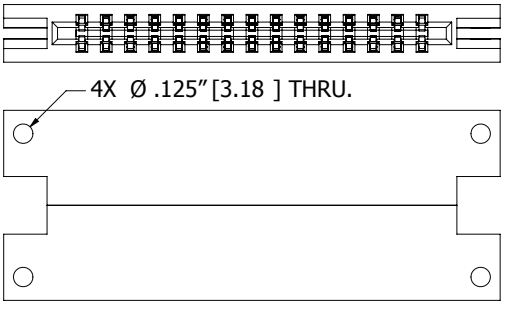
MOUNTING STYLE



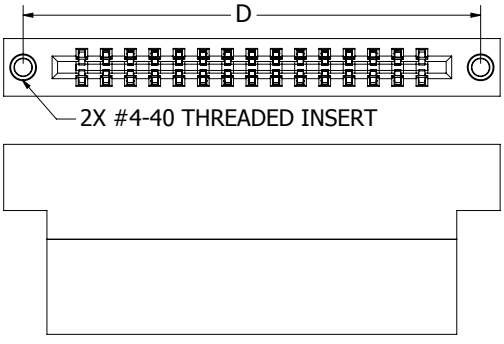
NO MOUNTING EARS (N)



FLUSH MOUNTING (D)



STRADDLE MOUNT (Q)



THREADED INSERT (I)

.156" [3.96 mm] Contact Centers, Dual Edge

PART NUMBER OPTIONS

E A M 25 F SL Q - Sxxx

MATERIALS (INSULATOR/CONTACT)
E = PBT/Phosphor Bronze (Standard)
R = PPS/Phosphor Bronze
H = PBT/Beryllium Copper
A = PPS/Beryllium Copper
Refer to Page 7 for Operating/Processing Temperatures

CONTACT FINISH - RoHS Compliant
All platings are Lead Free and have .000050" Nickel underplate
Contact Surface
A = .000030" Gold, both ends.

CONTACT CENTERS
M = .156" [3.96 mm]

NUMBER OF CONTACT POSITIONS
See Chart Below (Contacts per Row)

MODIFICATION CODE (Consult Factory)
OMIT FOR STANDARD

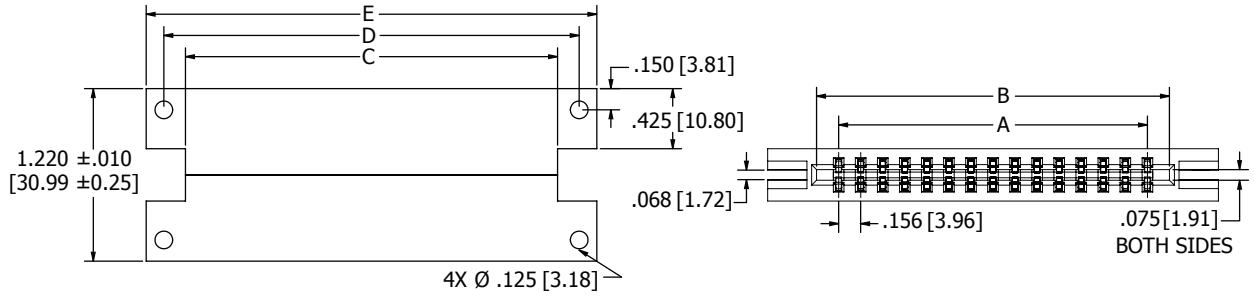
MOUNTING STYLE (Opposite Page)
Q = Straddle Mount
D = Flush Mounting
I = Threaded Insert
N = No Mounting

TERMINATION TYPE (Opposite Page)
SL = Single Level

READOUT (Opposite Page)
F = Dual Edge

DIMENSIONS

Dimensions in [ ] are in millimeters, all others are in inches.



_ AM _ _ FSLQ

VIEW BOTH TOP AND BOTTOM SIDE

POSITIONS/ CONTACTS	A±.008 [0.20]		B±.008 [0.20]		C±.015 [0.38]		D±.010 [0.25]		E±.020 [0.25]	
	in	mm	in	mm	in	mm	in	mm	in	mm
05/10*	0.624	15.85	0.944	23.98	1.072	27.23	1.378	35.00	1.628	41.35
06/12*	0.780	19.81	1.100	27.94	1.228	31.19	1.534	38.96	1.784	45.31
10/20	1.404	35.66	1.724	43.79	1.852	47.04	2.158	54.81	2.408	61.16
12/24*	1.716	43.59	2.036	51.71	2.164	54.97	2.470	62.74	2.720	69.09
15/30*	2.184	55.47	2.504	63.60	2.632	66.85	2.938	74.63	3.188	80.98
17/34*	2.496	63.40	2.816	71.53	2.944	74.78	3.250	82.55	3.500	88.90
18/36*	2.652	67.36	2.972	75.49	3.100	78.74	3.406	86.51	3.656	92.86
20/40*	2.964	75.29	3.284	83.41	3.412	86.66	3.718	94.44	3.968	100.79
22/44	3.276	83.21	3.596	91.34	3.724	94.59	4.030	102.36	4.280	108.71
25/50*	3.744	95.10	4.064	103.23	4.192	106.48	4.498	114.25	4.748	120.60
28/56*	4.212	106.98	4.532	115.11	4.660	118.36	4.966	126.14	5.216	132.49
30/60*	4.524	114.91	4.844	123.04	4.972	126.29	5.278	134.06	5.528	140.41
35/70*	5.304	134.72	5.624	142.85	5.752	146.10	6.058	153.87	6.308	160.22
36/72*	5.460	138.68	5.780	146.81	5.908	150.06	'N' MOUNTING ONLY			
37/74*	5.616	142.65	5.936	150.77	6.064	154.03				
38/76*	5.772	146.61	6.092	154.74	6.220	157.99				
39/78*	5.928	150.57	6.248	158.70	6.376	161.95				

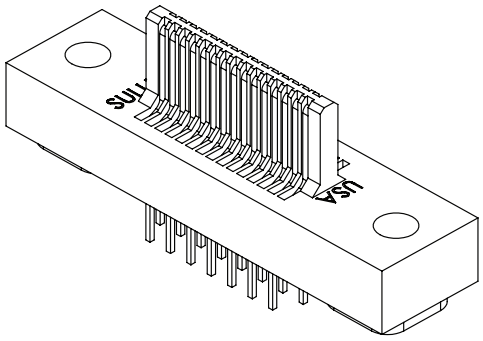
* Consult factory for availability.

SULLINS

1mm [.039”] Contact Centers, 14.48mm [.570”] Insulator Height, Dip Solder/Card Extender

SPECIFICATIONS

- Compatible with 15.49 mm [.610”] Insulator Height Card Edges
- Mates in place of 1.57 mm [.062”] PC board
- PA9T or PPS Insulator
- 1 Amp current rating for one contact energized
- 30 milli Ohms maximum at rated current
- UL Flammability Rating: 94V-0

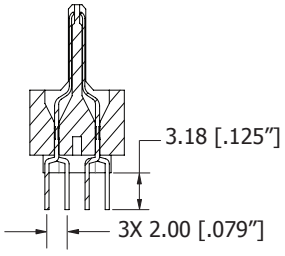


Operating/Processing Temperature

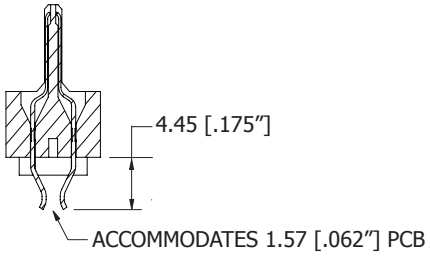
G = PA9T & Phosphor Bronze
Operating Temperature: -65°C to +150°C
Processing Temperature: 260° C Max. for 20 sec.

R = PPS & Phosphor Bronze
Operating Temperature: -65°C to +200°C
Processing Temperature: 260°C Max. for 20 sec.
Overall Gold Plating Only (Plating code 'M')

TERMINATION TYPE

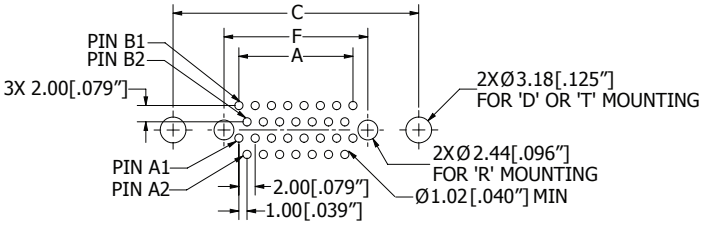


STAGGERED DIP SOLDER (MH)

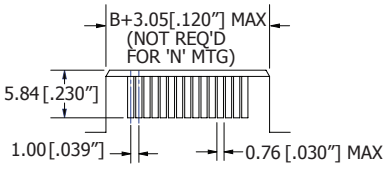


CARD EXTENDER (MR)

PCB LAYOUT

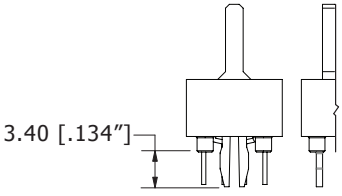


STAGGERED DIP SOLDER (MH)

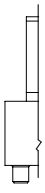


CARD EXTENDER (MR)

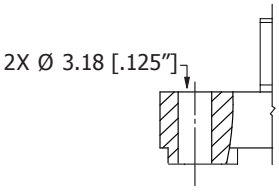
MOUNTING STYLE



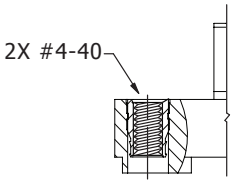
BOARD LOCK
(NO EARS)
(R)



NO
MOUNTING
(N)



FLUSH with
CLEARANCE HOLES
(D)



FLUSH with
THREADED INSERT
(T)

1mm [.039”] Contact Centers, 14.48mm [.570”] Insulator Height, Dip Solder/Card Extender

PART NUMBER OPTIONS

G B E 25 M MH D - Sxxx

MATERIALS (INSULATOR/CONTACT)
G = PA9T/Phosphor Bronze
R = PPS/ Phosphor Bronze ('M' Plating Only)
Operating & Processing Temperature: See Opposite Page

CONTACT FINISH - RoHS Compliant
All platings are Lead Free and have .000050” Nickel underplate

	Contact Surface	Termination
B =	.000010” Gold	.000100” Pure Tin, Matte
C =	.000030” Gold	.000100” Pure Tin, Matte
	Contact Surface	**Overall Plating**
M =	.000030” Gold	.000010” Gold

CONTACT CENTERS
E = 1mm [.039”]

MODIFICATIONS (Consult Factory)
OMIT FOR STANDARD

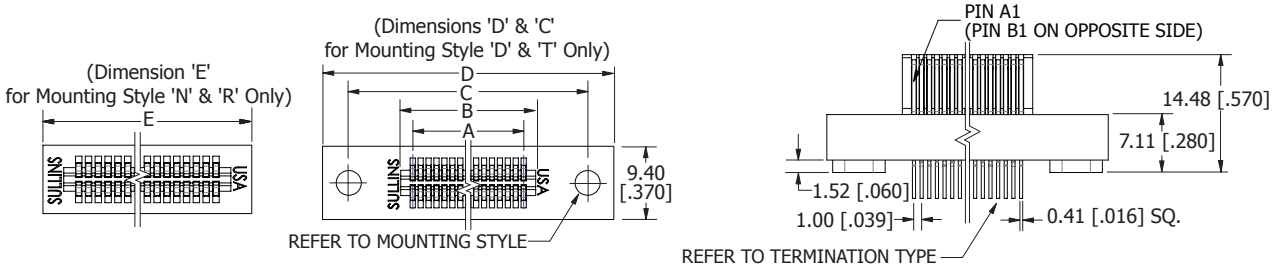
MOUNTING STYLE
(Consult factory for other options)
N = No Mounting
D = .280” Ears, Flush Mounting, 3.18 [.125”] Diameter
T = .280” Ears, Flush Mounting, #4-40 Threaded Insert
R = Metal Board Lock (MH Termination Only)

TERMINATION TYPE
MH = Staggered Dip Solder
MR = Card Extender

M = Male Card Edge

NUMBER OF CONTACT POSITIONS
See Chart Below

DIMENSIONS Dimensions in [ ] are in inches, all others are in millimeters.

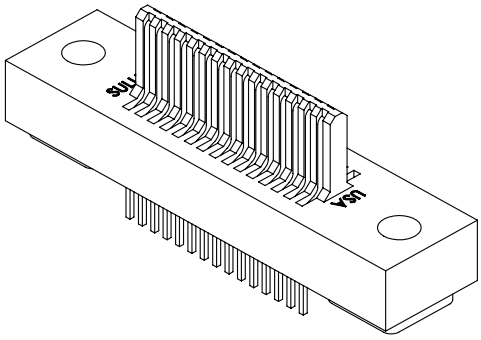


POSITIONS/ CONTACTS	MILLIMETERS						INCHES					
	A±0.13	B±0.13	C±0.25	D±0.51	E±0.51 'N' & 'R' Mtg. Only	F±0.25	A±.005	B±.005	C±.010	D±.020	E±.020 'N' & 'R' Mtg. Only	F±.010
02/04	1.00	4.04	17.15	23.78	8.28	4.66	0.039	0.159	0.675	0.936	0.326	0.183
03/06	2.00	5.04	18.15	24.78	9.28	5.66	0.079	0.198	0.715	0.975	0.365	0.223
04/08	3.00	6.04	19.15	25.78	10.28	6.66	0.118	0.238	0.754	1.015	0.405	0.262
05/10	4.00	7.04	20.15	26.78	11.28	7.66	0.157	0.277	0.793	1.054	0.444	0.302
06/12	5.00	8.04	21.15	27.78	12.28	8.66	0.197	0.317	0.833	1.094	0.483	0.341
07/14	6.00	9.04	22.15	28.78	13.28	9.66	0.236	0.356	0.872	1.133	0.523	0.380
08/16	7.00	10.04	23.15	29.78	14.28	10.66	0.276	0.395	0.911	1.172	0.562	0.420
09/18	8.00	11.04	24.15	30.78	15.28	11.66	0.315	0.435	0.951	1.212	0.602	0.459
10/20	9.00	12.04	25.15	31.78	16.28	12.66	0.354	0.474	0.990	1.251	0.641	0.498
11/22	10.00	13.04	26.15	32.78	17.28	13.66	0.394	0.513	1.030	1.290	0.680	0.538
12/24	11.00	14.04	27.15	33.78	18.28	14.66	0.433	0.553	1.069	1.330	0.720	0.577
13/26	12.00	15.04	28.15	34.78	19.28	15.66	0.472	0.592	1.108	1.369	0.759	0.617
14/28	13.00	16.04	29.15	35.78	20.28	16.66	0.512	0.632	1.148	1.409	0.798	0.656
15/30	14.00	17.04	30.15	36.78	21.28	17.66	0.551	0.671	1.187	1.448	0.838	0.695
16/32	15.00	18.04	31.15	37.78	22.28	18.66	0.591	0.710	1.226	1.487	0.877	0.735
17/34	16.00	19.04	32.15	38.78	23.28	19.66	0.630	0.750	1.266	1.527	0.917	0.774
18/36	17.00	20.04	33.15	39.78	24.28	20.66	0.669	0.789	1.305	1.566	0.956	0.813
19/38	18.00	21.04	34.15	40.78	25.28	21.66	0.709	0.828	1.344	1.605	0.995	0.853
20/40	19.00	22.04	35.15	41.78	26.28	22.66	0.748	0.868	1.384	1.645	1.035	0.892
21/42	20.00	23.04	36.15	42.78	27.28	23.66	0.787	0.907	1.423	1.684	1.074	0.931
22/44	21.00	24.04	37.15	43.78	28.28	24.66	0.827	0.946	1.463	1.723	1.113	0.971
23/46	22.00	25.04	38.15	44.78	29.28	25.66	0.866	0.986	1.502	1.763	1.153	1.010
24/48	23.00	26.04	39.15	45.78	30.28	26.66	0.906	1.025	1.541	1.802	1.192	1.050
25/50	24.00	27.04	40.15	46.78	31.28	27.66	0.945	1.065	1.581	1.842	1.231	1.089
26/52	25.00	28.04	41.15	47.78	32.28	28.66	0.984	1.104	1.620	1.881	1.271	1.128
27/54	26.00	29.04	42.15	48.78	33.28	29.66	1.024	1.143	1.659	1.920	1.310	1.168
28/56	27.00	30.04	43.15	49.78	34.28	30.66	1.063	1.183	1.699	1.960	1.350	1.207
29/58	28.00	31.04	44.15	50.78	35.28	31.66	1.102	1.222	1.738	1.999	1.389	1.246
30/60	29.00	32.04	45.15	51.78	36.28	32.66	1.142	1.261	1.778	2.038	1.428	1.286
31/62	30.00	33.04	46.15	52.78	37.28	33.66	1.181	1.301	1.817	2.078	1.468	1.325
32/64	31.00	34.04	47.15	53.78	38.28	34.66	1.220	1.340	1.856	2.117	1.507	1.365
33/66	32.00	35.04	48.15	54.78	39.28	35.66	1.260	1.380	1.896	2.157	1.546	1.404
34/68	33.00	36.04	49.15	55.78	40.28	36.66	1.299	1.419	1.935	2.196	1.586	1.443
35/70	34.00	37.04	50.15	56.78	41.28	37.66	1.339	1.458	1.974	2.235	1.625	1.483
36/72	35.00	38.04	51.15	57.78	42.28	38.66	1.378	1.498	2.014	2.275	1.665	1.522
37/74	36.00	39.04	52.15	58.78	43.28	39.66	1.417	1.537	2.053	2.314	1.704	1.561
38/76	37.00	40.04	53.15	59.78	44.28	40.66	1.457	1.576	2.093	2.353	1.743	1.601
39/78	38.00	41.04	54.15	60.78	45.28	41.66	1.496	1.616	2.132	2.393	1.783	1.640
40/80	39.00	42.04	55.15	61.78	46.28	42.66	1.535	1.655	2.171	2.432	1.822	1.680
41/82	40.00	43.04	56.15	62.78	47.28	43.66	1.575	1.695	2.211	2.472	1.861	1.719
42/84	41.00	44.04	57.15	63.78	48.28	44.66	1.614	1.734	2.250	2.511	1.901	1.758
43/86	42.00	45.04	58.15	64.78	49.28	45.66	1.654	1.773	2.289	2.550	1.940	1.798
44/88	43.00	46.04	59.15	65.78	50.28	46.66	1.693	1.813	2.329	2.590	1.980	1.837
45/90	44.00	47.04	60.15	66.78	51.28	47.66	1.732	1.852	2.368	2.629	2.019	1.876
46/92	45.00	48.04	61.15	67.78	52.28	48.66	1.772	1.891	2.407	2.668	2.058	1.916
47/94	46.00	49.04	62.15	68.78	53.28	49.66	1.811	1.931	2.447	2.708	2.098	1.955
48/96	47.00	50.04	63.15	69.78	54.28	50.66	1.850	1.970	2.486	2.747	2.137	1.994
49/98	48.00	51.04	64.15	70.78	55.28	51.66	1.890	2.009	2.526	2.786	2.176	2.034
50/100	49.00	52.04	65.15	71.78	56.28	52.66	1.929	2.049	2.565	2.826	2.216	2.073

.050" [1.27 mm] Contact Centers, .570" [14.48 mm] Insulator Height, Dip Solder/Card Extender

SPECIFICATIONS

- Compatible with .488" [12.40 mm] or .610" [15.49 mm] Insulator Height Card Edges
- Mates in place of .062" [1.57 mm] PC board
- PA9T or PPS Insulator
- 1 Amp current rating for one contact energized
- 30 milli Ohms maximum at rated current
- UL Flammability Rating: 94V-0

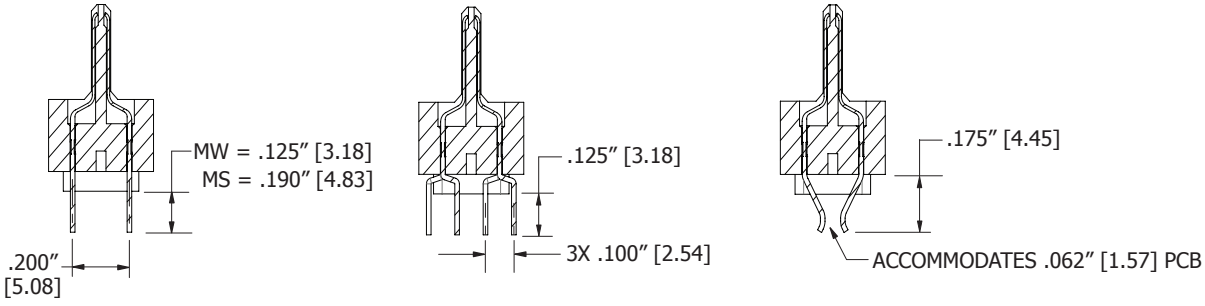


Operating/Processing Temperature

G = PA9T & Phosphor Bronze
Operating Temperature: -65°C to +150°C
Processing Temperature: 260° C Max. for 20 sec.

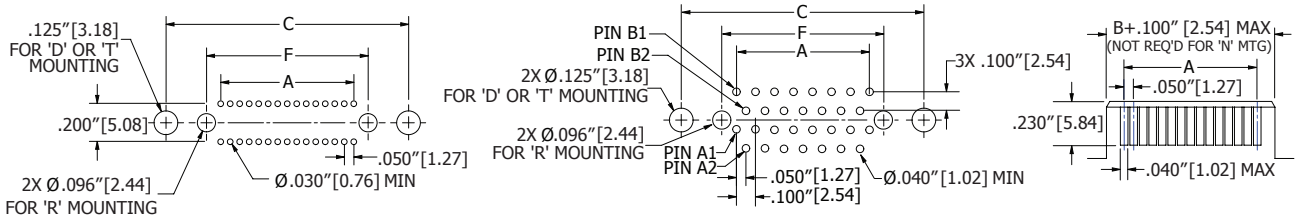
R = PPS & Phosphor Bronze
Operating Temperature: -65°C to +200°C
Processing Temperature: 260°C Max. for 20 sec.
Overall Gold Plating Only (Plating code 'M')

TERMINATION TYPE



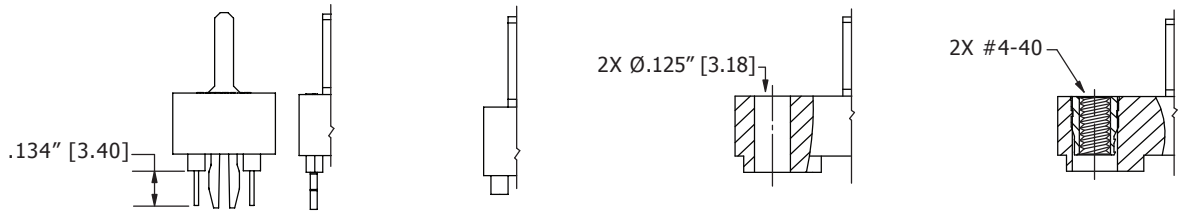
DIP SOLDER (MW, MS) **STAGGERED DIP SOLDER (MH)** **CARD EXTENDER (MR)**

PCB LAYOUT



DIP SOLDER (MW, MS) **STAGGERED DIP SOLDER (MH)** **CARD EXTENDER (MR)**

MOUNTING STYLE



BOARD LOCK (NO EARS) (R) **NO MOUNTING (N)** **FLUSH with CLEARANCE HOLES (D)** **FLUSH with THREADED INSERT (T)**

.050" [1.27mm] Contact Centers, .570" [14.48 mm] Insulator Height, Dip Solder/Card Extender

PART NUMBER OPTIONS

G B B 25 M MW D - Sxxx

MATERIALS (INSULATOR/CONTACT)
G = PA9T/Phosphor Bronze
R = PPS/ Phosphor Bronze (Only 'M' Plating Code)
Operating & Processing Temperature: See Opposite Page

CONTACT FINISH - RoHS Compliant
All platings are Lead Free and have .000050" Nickel underplate

	Contact Surface	Termination
B =	.000010" Gold	.000100" Pure Tin, Matte
C =	.000030" Gold	.000100" Pure Tin, Matte
	Contact Surface	**Overall Plating**
M =	.000030" Gold	.000010" Gold

CONTACT CENTERS
B = .050" [1.27 mm]

MODIFICATIONS (Consult Factory)
OMIT FOR STANDARD

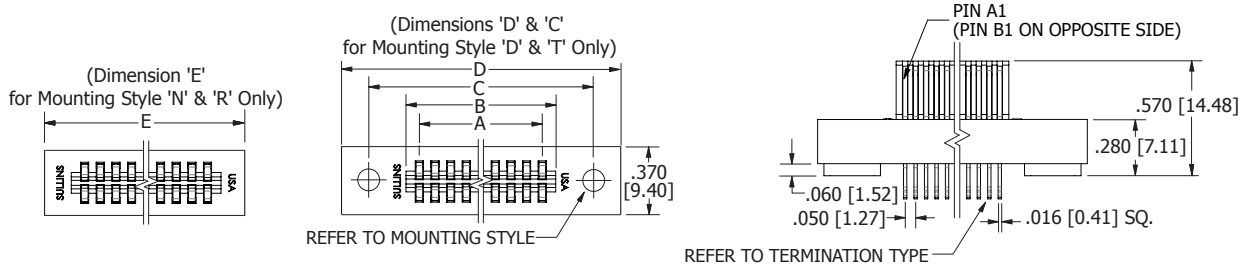
MOUNTING STYLE
(Consult factory for other options)
N = No Mounting
D = .280" Ears, Flush Mounting, .125" [3.18] Diameter
T = .280" Ears, Flush Mounting, #4-40 Threaded Insert
R = Metal Board Lock
(MS, MW, MH Termination Only)

TERMINATION TYPE
MW, MS = Dip Solder
MH = Staggered Dip Solder
MR = Card Extender

M = Male Card Edge

NUMBER OF CONTACT POSITIONS
(Contact factory for positions not shown.)

DIMENSIONS Dimensions in [ ] are in millimeters, all others are in inches.

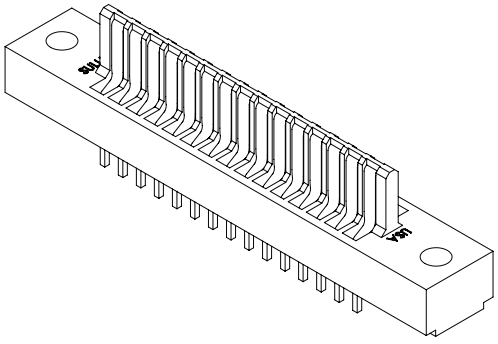


POSITIONS/ CONTACTS	INCHES						MILLIMETERS					
	A±.005	B±.005	C±.010	D±.020	E±.020 'N' & 'R' Mtg. Only	F±.010	A±0.13	B±0.13	C±0.25	D±0.51	E±0.51 'N' & 'R' Mtg. Only	F±0.25
05/10	0.200	0.286	0.776	1.036	0.456	0.350	5.08	7.26	19.71	26.31	11.58	8.89
06/12	0.250	0.336	0.826	1.086	0.506	0.400	6.35	8.53	20.98	27.58	12.85	10.16
07/14	0.300	0.386	0.876	1.136	0.556	0.450	7.62	9.80	22.25	28.85	14.12	11.43
08/16	0.350	0.436	0.926	1.186	0.606	0.500	8.89	11.07	23.52	30.12	15.39	12.70
09/18	0.400	0.486	0.976	1.236	0.656	0.550	10.16	12.34	24.79	31.39	16.66	13.97
10/20	0.450	0.536	1.026	1.286	0.706	0.600	11.43	13.61	26.06	32.66	17.93	15.24
11/22	0.500	0.586	1.076	1.336	0.756	0.650	12.70	14.88	27.33	33.93	19.20	16.51
12/24	0.550	0.636	1.126	1.386	0.806	0.700	13.97	16.15	28.60	35.20	20.47	17.78
13/26	0.600	0.686	1.176	1.436	0.856	0.750	15.24	17.42	29.87	36.47	21.74	19.05
14/28	0.650	0.736	1.226	1.486	0.906	0.800	16.51	18.69	31.14	37.74	23.01	20.32
15/30	0.700	0.786	1.276	1.536	0.956	0.850	17.78	19.96	32.41	39.01	24.28	21.59
16/32	0.750	0.836	1.326	1.586	1.006	0.900	19.05	21.23	33.68	40.28	25.55	22.86
17/34	0.800	0.886	1.376	1.636	1.056	0.950	20.32	22.50	34.95	41.55	26.82	24.13
18/36	0.850	0.936	1.426	1.686	1.106	1.000	21.59	23.77	36.22	42.82	28.09	25.40
19/38	0.900	0.986	1.476	1.736	1.156	1.050	22.86	25.04	37.49	44.09	29.36	26.67
20/40	0.950	1.036	1.526	1.786	1.206	1.100	24.13	26.31	38.76	45.36	30.63	27.94
21/42	1.000	1.086	1.576	1.836	1.256	1.150	25.40	27.58	40.03	46.63	31.90	29.21
22/44	1.050	1.136	1.626	1.886	1.306	1.200	26.67	28.85	41.30	47.90	33.17	30.48
23/46	1.100	1.186	1.676	1.936	1.356	1.250	27.94	30.12	42.57	49.17	34.44	31.75
24/48	1.150	1.236	1.726	1.986	1.406	1.300	29.21	31.39	43.84	50.44	35.71	33.02
25/50	1.200	1.286	1.776	2.036	1.456	1.350	30.48	32.66	45.11	51.71	36.98	34.29
26/52	1.250	1.336	1.826	2.086	1.506	1.400	31.75	33.93	46.38	52.98	38.25	35.56
27/54	1.300	1.386	1.876	2.136	1.556	1.450	33.02	35.20	47.65	54.25	39.52	36.83
28/56	1.350	1.436	1.926	2.186	1.606	1.500	34.29	36.47	48.92	55.52	40.97	38.10
29/58	1.400	1.486	1.976	2.236	1.656	1.550	35.56	37.74	50.19	56.79	42.06	39.37
30/60	1.450	1.536	2.026	2.286	1.706	1.600	36.83	39.01	51.46	58.06	43.33	40.64
31/62	1.500	1.586	2.076	2.336	1.756	1.650	38.10	40.28	52.73	59.33	44.60	41.91
32/64	1.550	1.636	2.126	2.386	1.806	1.700	39.37	41.55	54.00	60.60	45.87	43.18
33/66	1.600	1.686	2.176	2.436	1.856	1.750	40.64	42.82	55.27	61.87	47.14	44.45
34/68	1.650	1.736	2.226	2.486	1.906	1.800	41.91	44.09	56.54	63.14	48.41	45.72
35/70	1.700	1.786	2.276	2.536	1.956	1.850	43.18	45.36	57.81	64.41	49.68	46.99
36/72	1.750	1.836	2.326	2.586	2.006	1.900	44.45	46.63	59.08	65.68	50.95	48.26
37/74	1.800	1.886	2.376	2.636	2.056	1.950	45.72	47.90	60.35	66.95	52.22	49.53
38/76	1.850	1.936	2.426	2.686	2.106	2.000	46.99	49.17	61.62	68.22	53.49	50.80
40/80	1.950	2.036	2.526	2.786	2.206	2.100	49.53	51.71	64.16	70.76	56.03	53.34
41/82	2.000	2.086	2.576	2.836	2.256	2.150	50.80	52.98	65.43	72.03	57.30	54.61
44/88	2.150	2.236	2.726	2.986	2.406	2.300	54.61	56.79	69.24	75.84	61.11	58.42
45/90	2.200	2.286	2.776	3.036	2.456	2.350	55.88	58.06	70.51	77.11	62.38	59.69
50/100	2.450	2.536	3.026	3.286	2.706	2.600	62.23	64.41	76.86	83.46	68.73	66.04
55/110	2.700	2.786	3.276	3.536	2.956	2.850	68.58	70.76	83.21	89.81	75.08	72.39
60/120	2.950	3.036	3.526	3.786	3.206	3.100	74.93	77.11	89.56	96.16	81.43	78.74
65/130	3.200	3.286	3.776	4.036	3.456	3.350	81.28	83.46	95.91	102.51	87.78	85.09
70/140	3.450	3.536	4.026	4.286	3.706	3.600	87.63	89.81	102.26	108.86	94.13	91.44
75/150	3.700	3.786	4.276	4.536	3.956	3.850	93.98	96.16	108.61	115.21	100.48	97.79
80/160	3.950	4.036	4.526	4.786	4.206	4.100	100.33	102.51	114.96	121.56	106.83	104.14
85/170	4.200	4.286	4.776	5.036	4.456	4.350	106.68	108.86	121.31	127.91	113.18	110.19
90/180	4.450	4.536	5.026	5.286	4.706	4.600	113.03	115.21	127.66	134.26	119.53	116.84
95/190	4.700	4.786	5.276	5.536	4.956	4.850	119.38	121.56	134.01	140.61	125.88	123.19
100/200	4.950	5.036	5.526	5.786	5.206	5.100	125.73	127.91	140.36	146.96	132.23	129.54
105/210	5.200	5.286	5.776	6.036	5.456	5.350	132.08	134.26	146.71	153.31	138.58	135.89
110/220	5.450	5.536	6.026	6.286	5.706	5.600	138.43	140.61	153.06	159.66	144.93	142.24
120/240	5.950	6.036	'N' or 'R' Mtg. Only		6.206	6.100	151.13	153.31	'N' or 'R' Mtg. Only		157.63	154.94

.100" [2.54 mm] Contact Centers, .540" [13.72 mm] Insulator Height, Dip Solder/Wire Wrap/Right Angle/Card Extender

SPECIFICATIONS

- Compatible with .431" [10.95 mm] or .610" [15.49 mm] Insulator Height Card Edges
- Mates in place of .062" [1.57 mm] PC board
- PBT, PA9T, PPS or PEEK Insulator
- 3 Amps current rating for one contact energized
- 30 milli Ohms maximum at rated current
- Consult Factory for other Contact Centers
- UL Flammability Rating: 94V-0



Operating/Processing Temperature

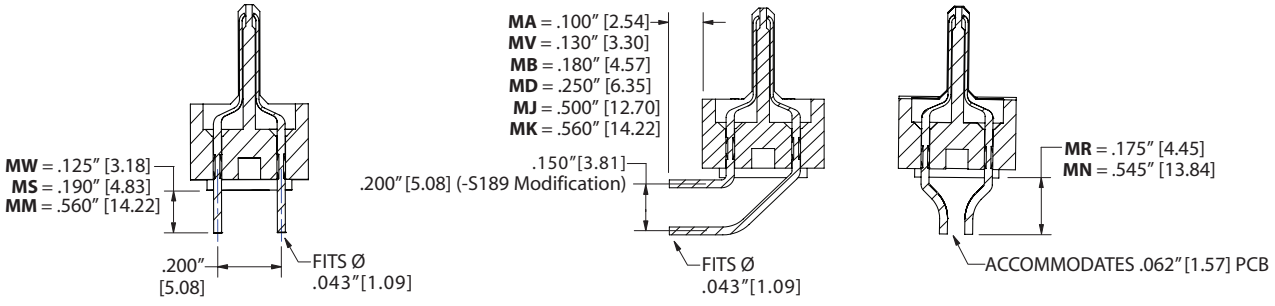
E = PBT & Phosphor Bronze
Operating Temperature: -65°C to +125°C
Processing Temperature: Wave only

G = PA9T & Phosphor Bronze
Operating Temperature: -65°C to +150°C
Processing Temperature: 260°C Max. for 20 sec.

R = PPS & Phosphor Bronze
Operating Temperature: -65°C to +150°C ('B' and 'C' Plating Code)
Operating Temperature: -65°C to +200°C (Only 'M' Plating Code)
Processing Temperature: 260°C Max. for 20 sec.

Q = PEEK & Phosphor Bronze
Operating Temperature: -65°C to +250°C
Processing Temperature: 260°C Max. for 20 sec.
Available in Overall Gold (Only 'M' Plating Code)

TERMINATION TYPE

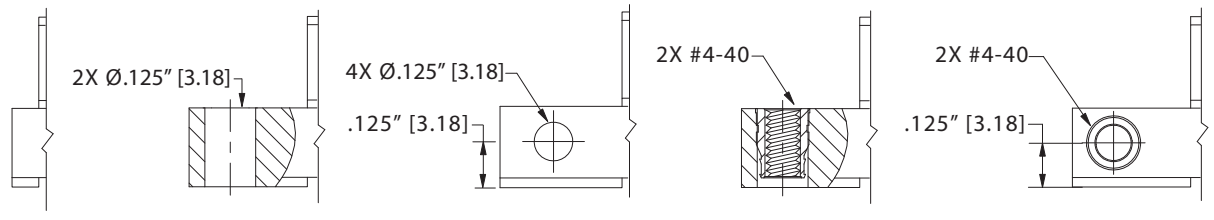


DIP SOLDER (MW, MS)
WIRE WRAP (MM)

RIGHT ANGLE
(MA, MV, MB, MD, MJ, MK)

CARD EXTENDER
(MR, MN)

MOUNTING STYLE



NO MOUNTING (N)

FLUSH with CLEARANCE HOLES (D)

FLUSH, SIDE MOUNTING with CLEARANCE HOLES (Z)

FLUSH with THREADED INSERT (T)

FLUSH, with SIDE MOUNTED THREADED INSERT (V)

.100" [2.54 mm] Contact Centers, .540" [13.72 mm] Insulator Height, Dip Solder/Wire Wrap/Right Angle/Card Extender

PART NUMBER OPTIONS

E B C 25 M MW D - Sxxx

MATERIALS (INSULATOR/CONTACT)
- E = PBT/Phosphor Bronze
- G = PA9T/Phosphor Bronze
- R = PPS/ Phosphor Bronze
- Q = PEEK/Phosphor Bronze (Only 'M' plating code)

Operating & Processing Temperature: See Opposite Page

CONTACT FINISH - RoHS Compliant

All platings are Lead Free and have .000050" Nickel underplate

	Contact Surface	Termination
B =	.000010" Gold	.000100" Pure Tin, Matte
C =	.000030" Gold	.000100" Pure Tin, Matte
	Contact Surface	**Overall Plating**
M =	.000030" Gold	.000010" Gold

CONTACT CENTERS
- C = .100" [2.54 mm]

MODIFICATIONS (Consult Factory)
OMIT FOR STANDARD
-S189 = .200" [5.08] Row Spacing (Right Angle Only)

MOUNTING STYLE
- N = No Mounting
- D = .250" Ears, Flush Mounting, .125" [3.18] Diameter
- Z = .250" Ears, Flush, Side Mounting
- T = .250" Ears, Flush Mounting, #4-40 Threaded Insert
- V = Flush, Side Mounting, #4-40 Threaded Insert

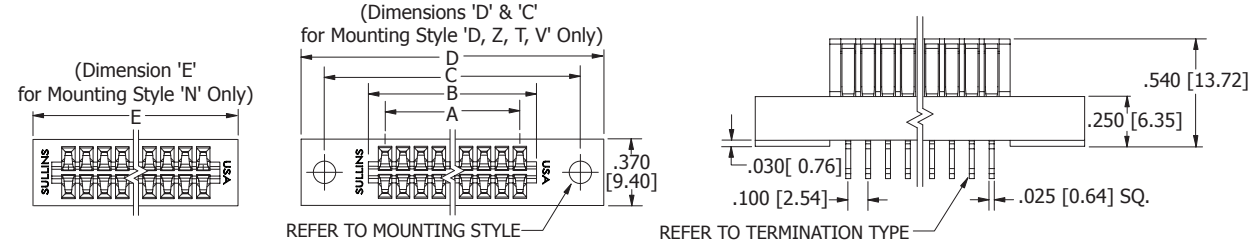
TERMINATION TYPE
- MW, MS = Dip Solder
- MM = Wire Wrap
- MA, MV, MB = Right Angle
- MD, MJ, MK = Right Angle
- MR, MN = Card Extender

M = Male Card Edge

NUMBER OF CONTACT POSITIONS
04 thru 60 Positions
(Contact factory for positions not shown.)

DIMENSIONS

Dimensions in [ ] are in millimeters, all others are in inches.



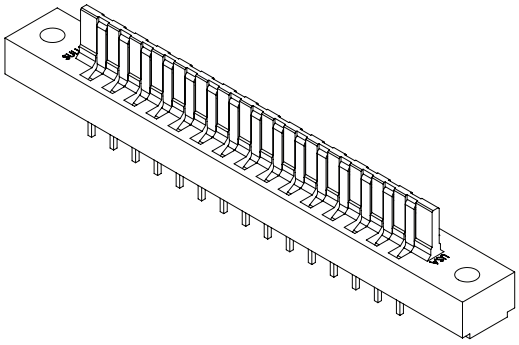
POSITIONS/ CONTACTS	INCHES					MILLIMETERS				
	A±.008	B±.008	C±.010	D±.020	E±.020 'N' Mtg. Only	A±0.20	B±0.20	C±0.25	D±0.51	E±0.51 'N' Mtg. Only
04/08	0.300	0.486	0.975	1.236	0.656	7.62	12.34	24.77	31.39	16.66
05/10	0.400	0.586	1.075	1.336	0.756	10.16	14.88	27.31	33.93	19.20
06/12	0.500	0.686	1.175	1.436	0.856	12.70	17.42	29.85	36.47	21.74
07/14	0.600	0.786	1.275	1.536	0.956	15.24	19.96	32.39	39.01	24.28
08/16	0.700	0.886	1.375	1.636	1.056	17.78	22.50	34.93	41.55	26.82
09/18	0.800	0.986	1.475	1.736	1.156	20.32	25.04	37.47	44.09	29.36
10/20	0.900	1.086	1.575	1.836	1.256	22.86	27.58	40.01	46.63	31.90
11/22	1.000	1.186	1.675	1.936	1.356	25.40	30.12	42.55	49.17	34.44
12/24	1.100	1.286	1.775	2.036	1.456	27.94	32.66	45.09	51.71	36.98
13/26	1.200	1.386	1.875	2.136	1.556	30.48	35.20	47.63	54.25	39.52
14/28*	1.300	1.486	1.975	2.236	1.656	33.02	37.74	50.17	56.79	42.06
15/30	1.400	1.586	2.075	2.336	1.756	35.56	40.28	52.71	59.33	44.60
16/32	1.500	1.686	2.175	2.436	1.856	38.10	42.82	55.25	61.87	47.14
17/34	1.600	1.786	2.275	2.536	1.956	40.64	45.36	57.79	64.41	49.68
18/36	1.700	1.886	2.375	2.636	2.056	43.18	47.90	60.33	66.95	52.22
19/38	1.800	1.986	2.475	2.736	2.156	45.72	50.44	62.87	69.49	54.76
20/40	1.900	2.086	2.575	2.836	2.256	48.26	52.98	65.41	72.03	57.30
22/44	2.100	2.286	2.775	3.036	2.456	53.34	58.06	70.49	77.11	62.38
23/46	2.200	2.386	2.875	3.136	2.556	55.88	60.60	73.03	79.65	64.92
24/48	2.300	2.486	2.975	3.236	2.656	58.42	63.14	75.57	82.19	67.46
25/50	2.400	2.586	3.075	3.336	2.756	60.96	65.68	78.11	84.73	70.00
26/52	2.500	2.686	3.175	3.436	2.856	63.50	68.22	80.65	87.27	72.54
27/54	2.600	2.786	3.275	3.536	2.956	66.04	70.76	83.19	89.81	75.08
28/56	2.700	2.886	3.375	3.636	3.056	68.58	73.30	85.73	92.35	77.62
29/58	2.800	2.986	3.475	3.736	3.156	71.12	75.84	88.27	94.89	80.16
30/60	2.900	3.086	3.575	3.836	3.256	73.66	78.38	90.81	97.43	82.70
31/62	3.000	3.186	3.675	3.936	3.356	76.20	80.92	93.35	99.97	85.24
32/64	3.100	3.286	3.775	4.036	3.456	78.74	83.46	95.89	102.51	87.78
33/66	3.200	3.386	3.875	4.136	3.556	81.28	86.00	98.43	105.05	90.32
34/68	3.300	3.486	3.975	4.236	3.656	83.82	88.54	100.97	107.59	92.86
35/70	3.400	3.586	4.075	4.336	3.756	86.36	91.08	103.51	110.13	95.40
36/72	3.500	3.686	4.175	4.436	3.856	88.90	93.62	106.05	112.67	97.94
37/74*	3.600	3.786	4.275	4.536	3.956	91.44	96.16	108.59	115.21	100.48
38/76*	3.700	3.886	4.375	4.636	4.056	93.98	98.70	111.13	117.75	103.02
39/78*	3.800	3.986	4.475	4.736	4.156	96.52	101.24	113.67	120.29	105.56
40/80	3.900	4.086	4.575	4.836	4.256	99.06	103.78	116.21	122.83	108.10
41/82*	4.000	4.186	4.675	4.936	4.356	101.60	106.32	118.75	125.37	110.64
42/84*	4.100	4.286	4.775	5.036	4.456	104.14	108.86	121.29	127.91	113.18
43/86*	4.200	4.386	4.875	5.136	4.556	106.68	111.40	123.83	130.45	115.72
44/88	4.300	4.486	4.975	5.236	4.656	109.22	113.94	126.37	132.99	118.26
45/90*	4.400	4.586	5.075	5.336	4.756	111.76	116.48	128.91	135.53	120.80
46/92*	4.500	4.686	5.175	5.436	4.856	114.30	119.02	131.45	138.07	123.34
47/94*	4.600	4.786	5.275	5.536	4.956	116.84	121.56	133.99	140.61	125.88
48/96*	4.700	4.886	5.375	5.636	5.056	119.38	124.10	136.53	143.15	128.42
49/98	4.800	4.986	5.475	5.736	5.156	121.92	126.64	139.07	145.69	130.96
50/100	4.900	5.086	5.575	5.836	5.256	124.46	129.18	141.61	148.23	133.50
52/104*	5.100	5.286	5.775	6.036	5.456	129.54	134.26	146.69	153.31	138.58
55/110*	5.400	5.586	6.075	6.336	5.756	137.16	141.88	154.31	160.93	146.20
56/112*	5.500	5.686	'N' Mounting Only		5.856	139.70	144.42	'N' Mounting Only		148.74
57/114*	5.600	5.786			5.956	142.24	146.96			151.28
58/116*	5.700	5.886			6.056	144.78	149.50			153.82
59/118*	5.800	5.986			6.156	147.32	152.04			156.36
60/120	5.900	6.086			6.256	149.86	154.58			158.90

* Consult factory for availability.

.156" [3.96 mm] Contact Centers, .540" [13.72 mm] Insulator Height, Dip Solder/Wire Wrap/Right Angle/Card Extender

SPECIFICATIONS

- Compatible with .431" [10.95 mm] or .610" [15.49 mm] Insulator Height Card Edges
- Mates in place of .062" [1.57 mm] PC board
- PBT, PA9T, PPS or PEEK Insulator
- 3 Amps current rating for one contact energized
- 30 milli Ohms maximum at rated current
- UL Flammability Rating: 94V-0



Operating/Processing Temperature

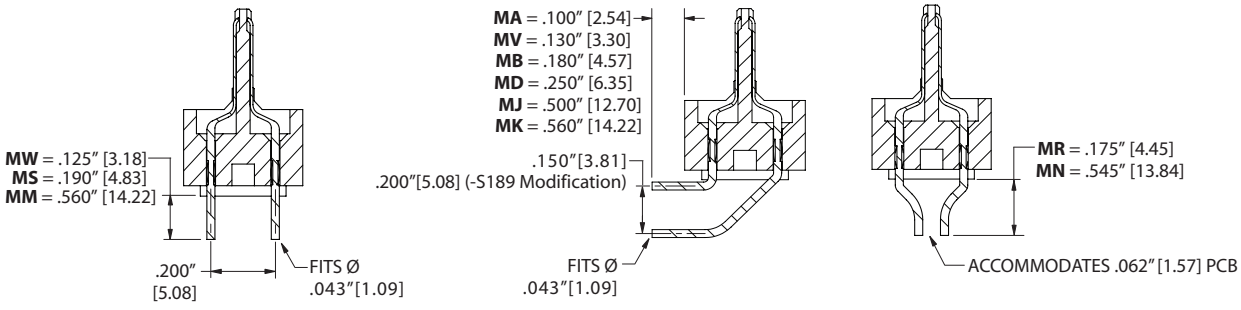
E = PBT & Phosphor Bronze
Operating Temperature: -65°C to +125°C
Processing Temperature: Wave only

G = PA9T & Phosphor Bronze
Operating Temperature: -65°C to +150°C
Processing Temperature: 260°C Max. for 20 sec.

R = PPS & Phosphor Bronze
Operating Temperature: -65°C to +150°C ('B' and 'C' Plating Code)
Operating Temperature: -65°C to +200°C (Only 'M' Plating Code)
Processing Temperature: 260°C Max. for 20 sec.

Q = PEEK & Phosphor Bronze
Operating Temperature: -65°C to +250°C
Processing Temperature: 260°C Max. for 20 sec.
Available in Overall Gold (Only 'M' Plating Code)

TERMINATION TYPE

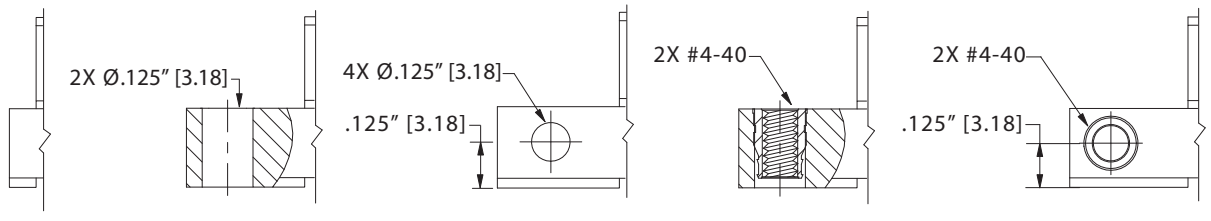


DIP SOLDER (MW, MS)
WIRE WRAP (MM)

RIGHT ANGLE
(MA, MV, MB, MD, MJ, MK)

CARD EXTENDER
(MR, MN)

MOUNTING STYLE



NO MOUNTING (N)

FLUSH with CLEARANCE HOLES (D)

FLUSH, SIDE MOUNTING with CLEARANCE HOLES (Z)

FLUSH with THREADED INSERT (T)

FLUSH, with SIDE MOUNTED THREADED INSERT (V)

.156" [3.96 mm] Contact Centers, .540" [13.72 mm] Insulator Height, Dip Solder/Wire Wrap/Right Angle/Card Extender

PART NUMBER OPTIONS

E B M 25 M MW D - Sxxx

MATERIALS (INSULATOR/CONTACT)
E = PBT/Phosphor Bronze
G = PA9T/Phosphor Bronze
R = PPS/ Phosphor Bronze
Q = PEEK/Phosphor Bronze (Only 'M' plating code)
Operating & Processing Temperature: See Opposite Page

CONTACT FINISH - RoHS Compliant
All platings are Lead Free and have .000050" Nickel underplate

	Contact Surface	Termination
B =	.000010" Gold	.000100" Pure Tin, Matte
C =	.000030" Gold	.000100" Pure Tin, Matte

	Contact Surface	Overall Plating
M =	.000030" Gold	.000010" Gold

CONTACT CENTERS
M = .156" [3.96 mm]

NUMBER OF CONTACT POSITIONS
02 thru 40 Positions

MODIFICATIONS (Consult Factory)
OMIT FOR STANDARD
-S189 = .200" [5.08] Row Spacing (Right Angle Only)

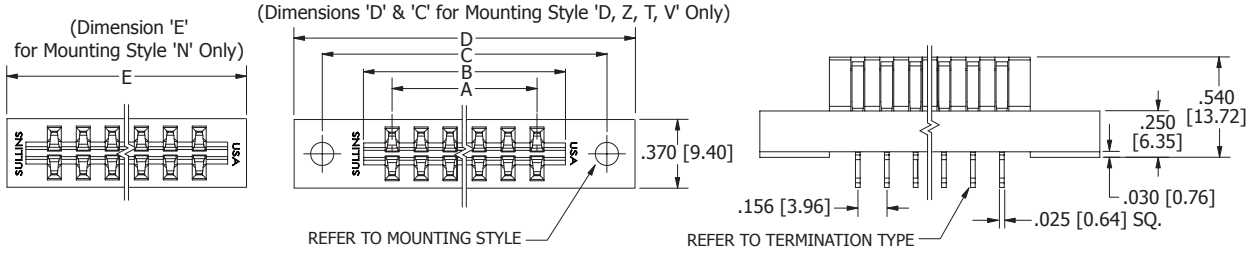
MOUNTING STYLE (Opposite Page)
N = No Mounting
D = .250" Ears, Flush Mounting, .125" [3.18] Diameter
Z = .250" Ears, Flush, Side Mounting
T = .250" Ears, Flush Mounting, #4-40 Threaded Insert
V = Flush, Side Mounting, #4-40 Threaded Insert

TERMINATION TYPE
MW, MS = Dip Solder
MM = Wire Wrap
MA, MV, MB = Right Angle
MD, MJ, MK = Right Angle
MR, MN = Card Extender

M = Male Card Edge

DIMENSIONS

Dimensions in [ ] are in millimeters, all others are in inches.



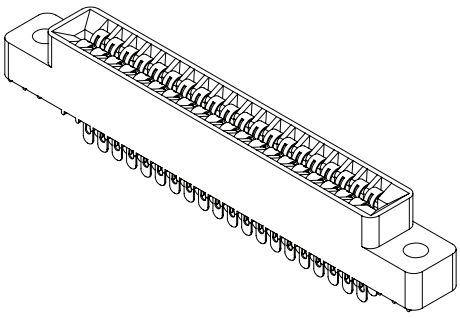
POSITIONS/ CONTACTS	INCHES					MILLIMETERS				
	A±.008	B±.008	C±.010	D±.020	E±.020 'N' Mtg. Only	A±0.20	B±0.20	C±0.25	D±0.51	E±0.51 'N' Mtg. Only
02/04	0.156	0.462	0.909	1.212	0.632	3.96	11.73	23.09	30.78	16.05
04/08*	0.468	0.774	1.221	1.524	0.944	11.89	19.66	31.01	38.71	23.98
05/10*	0.624	0.930	1.377	1.680	1.100	15.85	23.62	34.98	42.67	27.94
06/12	0.780	1.086	1.533	1.836	1.256	19.81	27.58	38.94	46.63	31.90
07/14*	0.936	1.242	1.689	1.992	1.412	23.77	31.55	42.90	50.60	35.86
08/16*	1.092	1.398	1.845	2.148	1.568	27.74	35.51	46.86	54.56	39.83
09/18*	1.248	1.554	2.001	2.304	1.724	31.70	39.47	50.83	58.52	43.79
10/20	1.404	1.710	2.157	2.460	1.880	35.66	43.43	54.79	62.48	47.75
11/22	1.560	1.866	2.313	2.616	2.036	39.62	47.40	58.75	66.45	51.71
12/24	1.716	2.022	2.469	2.772	2.192	43.59	51.36	62.71	70.41	55.68
13/26	1.872	2.178	2.625	2.928	2.348	47.55	55.32	66.68	74.37	59.64
14/28	2.028	2.334	2.781	3.084	2.504	51.51	59.28	70.64	78.33	63.60
15/30	2.184	2.490	2.937	3.240	2.660	55.47	63.25	74.60	82.30	67.56
16/32	2.340	2.646	3.093	3.396	2.816	59.44	67.21	78.56	86.26	71.53
17/34	2.496	2.802	3.249	3.552	2.972	63.40	71.17	82.52	90.22	75.49
18/36	2.652	2.958	3.405	3.708	3.128	67.36	75.13	86.49	94.18	79.45
19/38	2.808	3.114	3.561	3.864	3.284	71.32	79.10	90.45	98.15	83.41
20/40	2.964	3.270	3.717	4.020	3.440	75.29	83.06	94.41	102.11	87.38
21/42	3.120	3.426	3.873	4.176	3.596	79.25	87.02	98.37	106.07	91.34
22/44	3.276	3.582	4.029	4.332	3.752	83.21	90.98	102.34	110.03	95.30
23/46	3.432	3.738	4.185	4.488	3.908	87.17	94.95	106.30	114.00	99.26
24/48	3.588	3.894	4.341	4.644	4.064	91.14	98.91	110.26	117.96	103.23
25/50	3.744	4.050	4.497	4.800	4.220	95.10	102.87	114.22	121.92	107.19
26/52	3.900	4.206	4.653	4.956	4.376	99.06	106.83	118.19	125.88	111.15
27/54	4.056	4.362	4.809	5.112	4.532	103.02	110.79	122.15	129.84	115.11
28/56	4.212	4.518	4.965	5.268	4.688	106.98	114.76	126.11	133.81	119.08
29/58*	4.368	4.674	5.121	5.424	4.844	110.95	118.72	130.07	137.77	123.04
30/60*	4.524	4.830	5.277	5.580	5.000	114.91	122.68	134.04	141.73	127.00
31/62*	4.680	4.986	5.433	5.736	5.156	118.87	126.64	138.00	145.69	130.96
32/64*	4.836	5.142	5.589	5.892	5.312	122.83	130.61	141.96	149.66	134.92
33/66*	4.992	5.298	5.745	6.048	5.468	126.80	134.57	145.92	153.62	138.89
34/68	5.148	5.454	5.901	6.204	5.624	130.76	138.53	149.89	157.58	142.85
35/70	5.304	5.610	6.057	6.360	5.780	134.72	142.49	153.85	161.54	146.81
36/72	5.460	5.766	6.213	6.516	5.936	138.68	146.46	157.81	165.51	150.77
37/74	5.616	5.922	'N' Mounting Only		6.092	142.65	150.42	'N' Mounting Only		154.74
38/76	5.772	6.078			6.248	146.61	154.38			158.70
39/78*	5.928	6.234			6.404	150.57	158.34			162.66
40/80*	6.084	6.390			6.560	154.53	162.31			166.62

* Consult factory for availability.

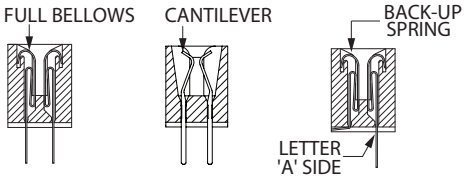
.100" [2.54 mm] Contact Centers, .431" [10.95 mm] Insulator Height, Dip Solder/Eyelet/Right Angle for .062" [1.57 mm] or .031" [0.79 mm] Mating PCB

SPECIFICATIONS

- Accommodates .062" ± .008" [1.57 mm ± 0.20 mm] or .031" ± .006" [0.79 mm ± 0.15 mm] mating PCB (for .093" [2.36 mm] PC board see following pages)
- PBT, PPS, PA9T or PEEK insulator
- Molded-in key available
- 3 Amps current rating for one contact energized
- 30 milli Ohms maximum at rated current
- UL Flammability Rating: 94V-0



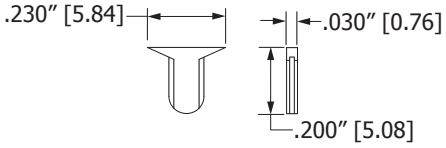
READOUT



DUAL (D) HALF LOADED (H)

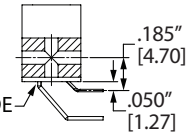
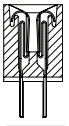
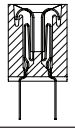
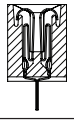
POLARIZING KEYS (For .062" Mating PCB Only)

PLA-K1
KEY IN BETWEEN CONTACTS
(ORDER SEPARATELY)

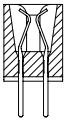


CONSULT FACTORY FOR MOLDED-IN KEY

TERMINATION TYPE

FULL BELLOW	TAIL LENGTH	ROW SPACING	MIN HOLE SIZE
	RIGHT ANGLE		
	.125" [3.18] (RA)	.156" [3.96]	Ø.043" [1.09]
	STRAIGHT		
	.200" [5.08] (RT)	.140" [3.56]	Ø.043" [1.09]
	.440" [11.19] (RY)	.140" [3.56]	Ø.043" [1.09]
	.185" [4.70] (RX)	.200" [5.08]	Ø.043" [1.09]
	.165" [4.19] (RJ)	.250" [6.35]	Ø.043" [1.09]
	CRIMP TO CENTER (SX)		
	.160" [4.06]		Ø.043" [1.09]

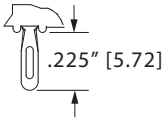
CANTILEVER



TAIL LENGTH	ROW SPACING	MIN HOLE SIZE
.200" [5.08] (ET)	.140" [3.56]	Ø.040" [1.02]
.440" [11.19] (EY)	.140" [3.56]	Ø.040" [1.02]

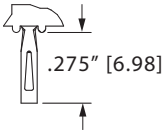
FULL BELLOW

STRAIGHT



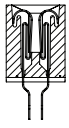
.007"[0.18] THICK (RE)

EYELET ACCEPTS 3-#26 AWG



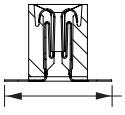
.014"[0.36] THICK (TE)

CARD EXTENDER ACCEPTS .062" [1.57] PCB



TAIL LENGTH	MODIFICATION CODE
.210" [5.33] EYELET (RE)	-S13
.185" [4.70] (RT)	-S13
.425" [10.80] (RY)	-S13

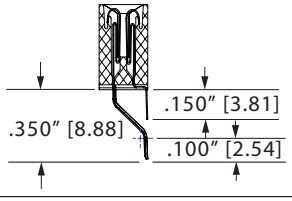
SURFACE MOUNT (RT)



MODIFICATION CODE

-S924

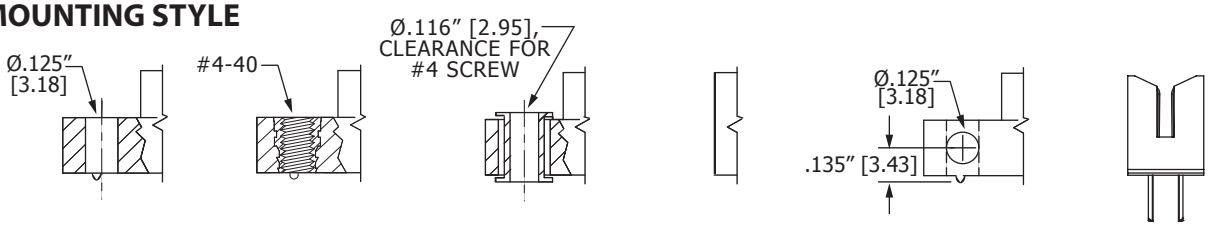
RIGHT ANGLE SURFACE MOUNT (RA)



MODIFICATION CODE

-S2106

MOUNTING STYLE



CLEARANCE HOLE (H) | THREADED INSERT (I) | FLOATING BOBBIN (F) | NO MOUNTING EARS (N) | SIDE MOUNTING (S) | OPEN CARDSLOT (B)

.100" [2.54 mm] Contact Centers, .431" [10.95 mm] Insulator Height, Dip Solder/Eyelet/Right Angle for .062"[1.57 mm] or .031" [0.79 mm] Mating PCB

PART NUMBER OPTIONS

E B C 43 D RE H - Sxxx

MATERIALS (INSULATOR/CONTACT)
- E = PBT/Phosphor Bronze (Standard)
- R = PPS/Phosphor Bronze
- G = PA9T/Phosphor Bronze
- H = PBT/Beryllium Copper
- A = PPS/Beryllium Copper
- J = PA9T/Beryllium Copper
- *F = PPS/Spinodal (Overall Gold Plating Only) Consult Factory for Special Soldering Guidelines
- *C = PPS/Beryllium Nickel (Overall Gold Plating Only)
- *W = PEEK/Beryllium Nickel (Overall Gold Plating Only)

*Consult factory for availability.
Refer to Page 7 for Operating/Processing Temperatures

CONTACT FINISH - RoHS Compliant
All platings are Lead Free and have .000050" Nickel underplate

	Contact Surface	Termination
B =	.000010" Gold	.000100" Pure Tin, Matte
C =	.000030" Gold	.000100" Pure Tin, Matte
G =	.000010" Gold	.000005" Gold
Y =	.000030" Gold	.000005" Gold
	Contact Surface	**Overall Plating**
S =	.000010" Gold	.000010" Gold
M =	.000030" Gold	.000010" Gold
E =	.000100" Pure Tin, Matte	.000100" Pure Tin, Matte

CONTACT CENTERS
- C = .100" [2.54 mm]

MODIFICATIONS (Consult Factory)
OMIT FOR STANDARD
- -S13 = Card Extender Accepts .062" [1.57 mm] PCB (RE, RT, RY Terminations Only)
- -S734 = .031"±.006" [0.79 mm ± 0.15 mm] Mating PCB
- -S924 = Surface Mount
- -S2106 = Right Angle Surface Mount

MOUNTING STYLE (Opposite Page)
- H = .125" [3.18 mm] Clearance Holes
- N = No Mounting
- B = Open Card slot
- S = Side Mounting
- I = Threaded Insert
- F = Floating Bobbin

TERMINATION TYPE (Opposite Page)
- RA = Right Angle
- RE = Eyelet (Standard)
- TE = Eyelet (Overall Plated Only)
- **ET, RT = .140" [3.56 mm] X .200" [5.08 mm] Dip Solder
- **EY, RY = .140" [3.56 mm] X .440" [11.19 mm] Dip Solder
- RX = .200" [5.08 mm] X .185" [4.70 mm] Dip Solder
- RJ = .250" [6.35 mm] X .165" [4.19 mm] Dip Solder
- SX = .110" [2.79 mm] Centered Dip Solder

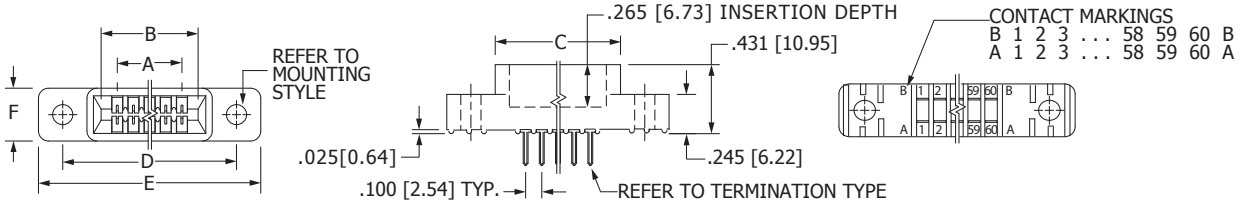
READOUT (Opposite Page)
- D = Dual
- H = Half Loaded

NUMBER OF CONTACT POSITIONS
See Chart Below

**'ET' & 'EY' Only available in 'B' & 'C' Plating code

DIMENSIONS

Dimensions in [ ] are in millimeters, all others are in inches.



Tolerances on non-critical dimensions may very slightly due to shrinkage differential per insulator material; Consult factory.

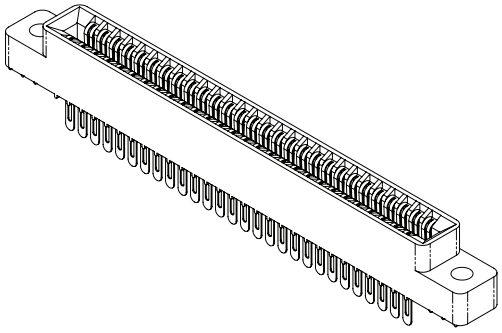
POSITIONS/ CONTACTS	INCHES						MILLIMETERS					
	A±.008	B±.008	C±.015	D±.010	E±.020	F+.005/-.015	A±0.20	B±0.20	C±0.38	D±0.25	E±0.51	F+0.13/-0.38
04/08*	0.300	0.500	0.675	0.975	1.275		7.62	12.70	17.15	24.77	32.39	
05/10	0.400	0.600	0.775	1.075	1.375		10.16	15.24	19.69	27.31	34.93	
06/12	0.500	0.700	0.875	1.175	1.475		12.70	17.78	22.23	29.85	37.47	
07/14	0.600	0.800	0.975	1.275	1.575		15.24	20.32	24.77	32.39	40.01	
08/16	0.700	0.900	1.075	1.375	1.675		17.78	22.86	27.31	34.93	42.55	
10/20	0.900	1.100	1.275	1.575	1.875		22.86	27.94	32.39	40.01	47.63	
12/24	1.100	1.300	1.475	1.775	2.075		27.94	33.02	37.47	45.09	52.71	
13/26	1.200	1.400	1.575	1.875	2.175		30.48	35.56	40.01	47.63	55.25	
15/30	1.400	1.600	1.775	2.075	2.375		35.56	40.64	45.09	52.71	60.33	
17/34	1.600	1.800	1.975	2.275	2.575	0.330	40.64	45.72	50.17	57.79	65.41	8.38
18/36	1.700	1.900	2.075	2.375	2.675		43.18	48.26	52.71	60.33	67.95	
19/38	1.800	2.000	2.175	2.475	2.775		45.72	50.80	55.25	62.87	70.49	
20/40	1.900	2.100	2.275	2.575	2.875		48.26	53.34	57.79	65.41	73.03	
22/44	2.100	2.300	2.475	2.775	3.075		53.34	58.42	62.87	70.49	78.11	
23/46*	2.200	2.400	2.575	2.875	3.175		55.88	60.96	65.41	73.03	80.65	
25/50	2.400	2.600	2.775	3.075	3.375		60.96	66.04	70.49	78.11	85.73	
26/52	2.500	2.700	2.875	3.175	3.475		63.50	68.58	73.03	80.65	88.27	
28/56	2.700	2.900	3.075	3.375	3.675		68.58	73.66	78.11	85.73	93.35	
30/60	2.900	3.100	3.275	3.575	3.875		73.66	78.74	83.19	90.81	98.43	
31/62	3.000	3.200	3.375	3.675	3.975		76.20	81.28	85.73	93.35	100.97	
35/70	3.400	3.600	3.775	4.075	4.375		86.36	91.44	95.89	103.51	111.13	
36/72	3.500	3.700	3.875	4.175	4.475		88.90	93.98	98.43	106.05	113.67	
40/80	3.900	4.100	4.275	4.575	4.875		99.06	104.14	108.59	116.21	123.83	
43/86	4.200	4.400	4.575	4.875	5.175		106.68	111.76	116.21	123.83	131.45	
44/88	4.300	4.500	4.675	4.975	5.275		109.22	114.30	118.75	126.37	133.99	
49/98	4.800	5.000	5.175	5.475	5.775	0.400	121.92	127.00	131.45	139.07	146.69	10.16
50/100	4.900	5.100	5.275	5.575	5.875		124.46	129.54	133.99	141.61	149.23	
52/104*	5.100	5.300	5.475	5.775	6.075		129.54	134.62	139.07	146.69	154.31	
60/120	5.900	6.100	6.275	6.575	6.875		149.86	154.94	159.39	167.01	174.63	
65/130	6.400	6.600	6.775	7.075	7.375		162.56	167.64	172.09	179.71	187.33	

* Consult factory for availability.

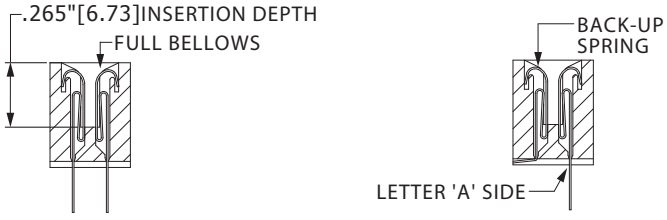
.100" [2.54 mm] Contact Centers, .431" [10.95 mm] Insulator Height, Dip Solder/Eyelet/Right Angle for .093" [2.36 mm] Mating PCB

SPECIFICATIONS

- Accommodates .093" ± .008" [2.36 mm ± 0.20 mm] PC board
- PBT, PPS, PA9T, or PEEK insulator
- Molded-in key available
- 3 Amps current rating for one contact energized
- 30 milli Ohms maximum at rated current
- UL Flammability Rating: 94V-0

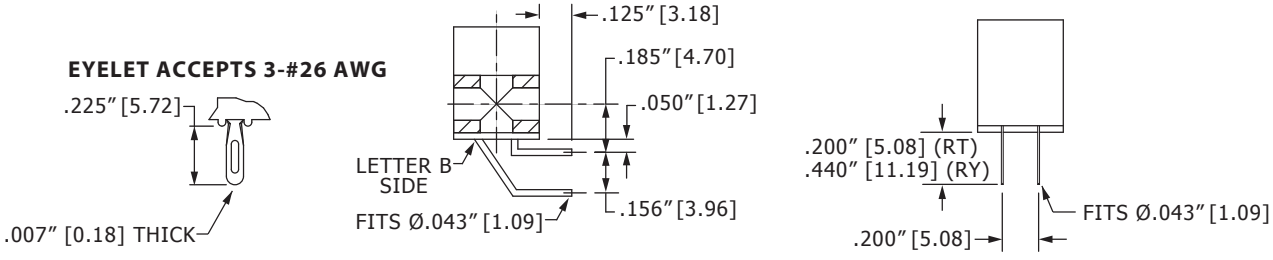


READOUT



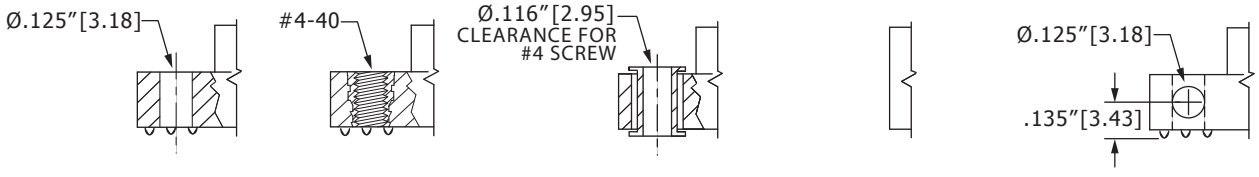
DUAL (D) **HALF LOADED (H)**

TERMINATION TYPE



EYELET (RE) **RIGHT ANGLE (RA)** **NARROW DIP SOLDER (RT,RY)**

MOUNTING STYLE



CLEARANCE HOLE (H) **THREADED INSERT (I)** **FLOATING BOBBIN (F)** **NO MOUNTING EARS (N)** **SIDE MOUNTING (S)**

.100" [2.54 mm] Contact Centers, .431" [10.95 mm] Insulator Height, Dip Solder/Eyelet/Right Angle for .093" [2.36 mm] Mating PCB

PART NUMBER OPTIONS

E B C 43 D RE H - S93

MATERIALS (INSULATOR/CONTACT)
- E = PBT/Phosphor Bronze (Standard)
- R = PPS/Phosphor Bronze
- G = PA9T/Phosphor Bronze
- H = PBT/Beryllium Copper
- A = PPS/Beryllium Copper
- J = PA9T/Beryllium Copper
- *F = PPS/Spinodal (Overall Gold Plating Only) Consult Factory for Special Soldering Guidelines
- *C = PPS/Beryllium Nickel (Overall Gold Plating Only)
- *W = PEEK/Beryllium Nickel (Overall Gold Plating Only)

*Consult factory for availability.
Refer to Page 7 for Operating/Processing Temperatures

CONTACT FINISH - RoHS Compliant
All platings are Lead Free and have .000050" Nickel underplate

	Contact Surface	Termination
B =	.000010" Gold	.000100" Pure Tin, Matte
C =	.000030" Gold	.000100" Pure Tin, Matte
G =	.000010" Gold	.000005" Gold
Y =	.000030" Gold	.000005" Gold

	Contact Surface	Overall Plating
S =	.000010" Gold	.000010" Gold
M =	.000030" Gold	.000010" Gold
E =	.000100" Pure Tin, Matte	.000100" Pure Tin, Matte

MODIFICATION (Consult Factory)
- -S93 = .093" ± .008" [2.36 mm ± 0.20 mm] PCB, .200" [5.08 mm] Row Spacing (RT, RY)

MOUNTING STYLE (Opposite Page)
- H = .125" [3.18 mm] Clearance Holes
- N = No Mounting
- S = Side Mounting
- I = Threaded Insert
- F = Floating Bobbin

TERMINATION TYPE (Opposite Page)
- RA = Right Angle
- RE = Eyelet
- RT = .200" [5.08 mm] X .200" [5.08 mm] Dip Solder
- RY = .200" [5.08 mm] X .440" [11.19 mm] Dip Solder

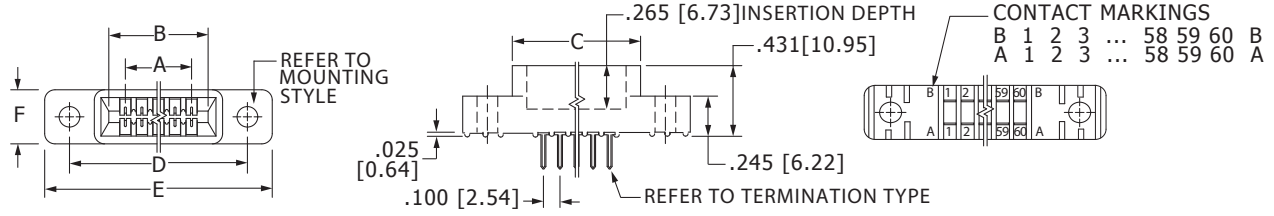
READOUT (Opposite Page)
- D = Dual
- H = Half Loaded

NUMBER OF CONTACT POSITIONS
See Chart Below

CONTACT CENTERS
- C = .100" [2.54 mm]

DIMENSIONS

Dimensions in [ ] are in millimeters, all others are in inches.



Tolerances on non-critical dimensions may very slightly due to shrinkage differential per insulator material; Consult factory.

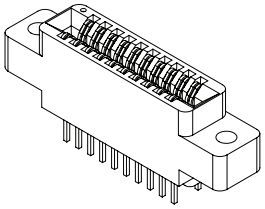
POSITIONS/ CONTACTS	INCHES						MILLIMETERS					
	A±.008	B±.008	C±.015	D±.010	E±.020	F+.005/-.015	A±0.20	B±0.20	C±0.38	D±0.25	E±0.51	F+0.13/-0.38
04/08*	0.300	0.500	0.675	0.975	1.275		7.62	12.70	17.15	24.77	32.39	
05/10	0.400	0.600	0.775	1.075	1.375		10.16	15.24	19.69	27.31	34.93	
06/12	0.500	0.700	0.875	1.175	1.475		12.70	17.78	22.23	29.85	37.47	
07/14	0.600	0.800	0.975	1.275	1.575		15.24	20.32	24.77	32.39	40.01	
08/16	0.700	0.900	1.075	1.375	1.675		17.78	22.86	27.31	34.93	42.55	
10/20	0.900	1.100	1.275	1.575	1.875		22.86	27.94	32.39	40.01	47.63	
12/24	1.100	1.300	1.475	1.775	2.075		27.94	33.02	37.47	45.09	52.71	
13/26	1.200	1.400	1.575	1.875	2.175		30.48	35.56	40.01	47.63	55.25	
15/30	1.400	1.600	1.775	2.075	2.375		35.56	40.64	45.09	52.71	60.33	
17/34	1.600	1.800	1.975	2.275	2.575		40.64	45.72	50.17	57.79	65.41	
18/36	1.700	1.900	2.075	2.375	2.675	0.330	43.18	48.26	52.71	60.33	67.95	8.38
19/38	1.800	2.000	2.175	2.475	2.775		45.72	50.80	55.25	62.87	70.49	
20/40	1.900	2.100	2.275	2.575	2.875		48.26	53.34	57.79	65.41	73.03	
22/44	2.100	2.300	2.475	2.775	3.075		53.34	58.42	62.87	70.49	78.11	
23/46*	2.200	2.400	2.575	2.875	3.175		55.88	60.96	65.41	73.03	80.65	
25/50	2.400	2.600	2.775	3.075	3.375		60.96	66.04	70.49	78.11	85.73	
26/52	2.500	2.700	2.875	3.175	3.475		63.50	68.58	73.03	80.65	88.27	
28/56	2.700	2.900	3.075	3.375	3.675		68.58	73.66	78.11	85.73	93.35	
30/60	2.900	3.100	3.275	3.575	3.875		73.66	78.74	83.19	90.81	98.43	
31/62	3.000	3.200	3.375	3.675	3.975		76.20	81.28	85.73	93.35	100.97	
35/70	3.400	3.600	3.775	4.075	4.375		86.36	91.44	95.89	103.51	111.13	
36/72	3.500	3.700	3.875	4.175	4.475		88.90	93.98	98.43	106.05	113.67	
40/80	3.900	4.100	4.275	4.575	4.875		99.06	104.14	108.59	116.21	123.83	
43/86	4.200	4.400	4.575	4.875	5.175		106.68	111.76	116.21	123.83	131.45	
44/88	4.300	4.500	4.675	4.975	5.275		109.22	114.30	118.75	126.37	133.99	
49/98	4.800	5.000	5.175	5.475	5.775	0.400	121.92	127.00	131.45	139.07	146.69	10.16
50/100	4.900	5.100	5.275	5.575	5.875		124.46	129.54	133.99	141.61	149.23	
52/104*	5.100	5.300	5.475	5.775	6.075		129.54	134.62	139.07	146.69	154.31	
60/120	5.900	6.100	6.275	6.575	6.875		149.86	154.94	159.39	167.01	174.63	
65/125	6.400	6.600	6.775	7.075	7.375		162.56	167.64	172.09	179.71	187.33	

* Consult factory for availability.

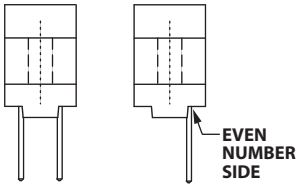
.100" [2.54 mm] Contact Centers, .610" [15.49 mm] Insulator Height, Dip Solder/Wire Wrap/Right Angle/Card Extender

SPECIFICATIONS

- Accommodates .062" ± .008" [1.57 mm ± 0.20 mm] mating PCB
  (For .093" [2.36 mm] or .125" [3.18 mm] mating PCB see following pages)
- PBT, PPS or PA9T insulator
- Molded-in key available
- 3 Amps current rating for one contact energized
- 30 milli Ohms maximum at rated current
- UL Flammability Rating: 94V-0



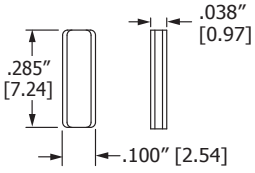
READOUT



DUAL (D) HALF LOADED (H)

POLARIZING KEY

PLC-K1

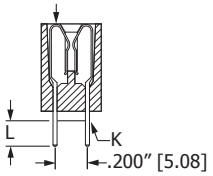


KEY IN BETWEEN CONTACTS
(ORDER SEPARATELY)

TERMINATION TYPE

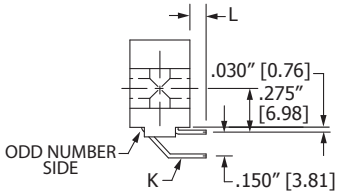
HAIRPIN BELLOWS	TERMINATION TYPE	POST CROSS SECTION K	POST LENGTH L .025" [0.64]	FITS MIN. HOLE SIZE
CW	DIP SOLDER	.015" X .025"[0.38 X 0.64]	.125" [3.18]	.035" [0.89]
CT	DIP SOLDER	.015" X .025"[0.38 X 0.64]	.170" [4.32]	.035" [0.89]
CS	DIP SOLDER	.025" [0.64] SQUARE	.160" [4.06]	.040" [1.02]
CM	WIRE WRAP	.025" [0.64] SQUARE	.560" [14.20]	.040" [1.02]
CA	RIGHT ANGLE	.025" [0.64] SQUARE	.100" [2.54]	.043" [1.09]
CB	RIGHT ANGLE	.025" [0.64] SQUARE	.180" [4.57]	.043" [1.09]
CC	RIGHT ANGLE	.025" [0.64] SQUARE	.250" [6.35]	.043" [1.09]

HAIRPIN BELLOWS



(CW, CT, CS, CM)

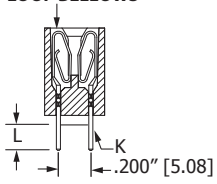
RIGHT ANGLE



(CA, CB, CC, TA, TB, TM, KA, KE, KU, KJ)

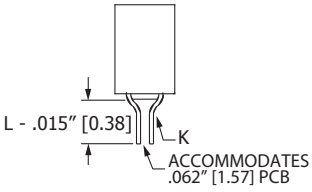
LOOP BELLOWS	TERMINATION TYPE	POST CROSS SECTION K	POST LENGTH L .025"'[0.64]	FITS MIN. HOLE SIZE
TK,CK	DIP SOLDER	.025" [0.64] ROUND	.190" [4.83]	.033" [0.84]
RS	DIP SOLDER	.025" [0.64] SQUARE	.190" [4.83]	.040" [1.02]
RM	WIRE WRAP	.025" [0.64] SQUARE	.560" [14.20]	.040" [1.02]
TA	RIGHT ANGLE	.025" [0.64] SQUARE	.100" [2.54]	.043" [1.09]
TB	RIGHT ANGLE	.025" [0.64] SQUARE	.180" [4.57]	.043" [1.09]
TM	RIGHT ANGLE	.025" [0.64] SQUARE	.250" [6.35]	.043" [1.09]

LOOP BELLOWS



(TK, CK, RS, RM)

HAIRPIN or LOOP CARD EXTENDER

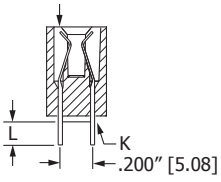


(CT, CS, CM,TK, CK, RS,RM)
Example P/N: EBC10DCSN-S288
(Requires -S288 Modification Code)

CANTILEVER	TERMINATION TYPE	POST CROSS SECTION K	POST LENGTH L .025"'[0.64]	FITS MIN. HOLE SIZE
KS	DIP SOLDER	.025" [0.64] SQUARE	.190" [4.83]	.040" [1.02]
KD	DIP SOLDER	.025" [0.64] SQUARE	.160" [4.06]	.043" [1.09]
KM	WIRE WRAP	.025" [0.64] SQUARE	.560" [14.20]	.040" [1.02]
*KA	RIGHT ANGLE	.025" [0.64] SQUARE	.100" [2.54]	.043" [1.09]
*KE	RIGHT ANGLE	.025" [0.64] SQUARE	.180" [4.57]	.043" [1.09]
*KU	RIGHT ANGLE	.025" [0.64] SQUARE	.250" [6.35]	.043" [1.09]
*KJ	RIGHT ANGLE	.025" [0.64] SQUARE	.500" [12.70]	.043" [1.09]
*KR	CARD EXTENDER	.025" [0.64] SQUARE	.235" [5.97]	N/A
*KN	CARD EXTENDER	.025" [0.64] SQUARE	.605" [15.37]	N/A

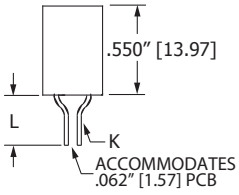
*** KA, KE, KU, KJ, KR, KN have no standoffs, unless requested.**

CANTILEVER



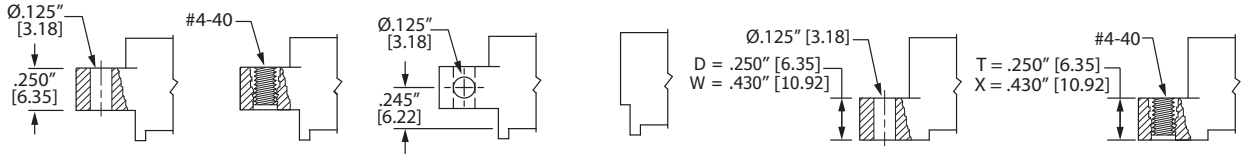
(KS, KD, KM)

CANTILEVER CARD EXTENDER



(KR, KN)
Example P/N: EBC10DKRN
(Omit Modification Code)

MOUNTING STYLE



CLEARANCE HOLE (H) | THREADED INSERT(I) | SIDE MOUNTING (S) | NO MOUNTING EARS (N) | FLUSH MOUNTING (D, W) | FLUSH MOUNTING WITH THREADED INSERT(T, X)

.100" [2.54 mm] Contact Centers, .610" [15.49 mm] Insulator Height, Dip Solder/Wire Wrap/Right Angle/Card Extender

PART NUMBER OPTIONS

E B C 70 D CM H - Sxxx

MATERIALS (INSULATOR/CONTACT)
- E = PBT/Phosphor Bronze (Standard)
- R = PPS/Phosphor Bronze
- G = PA9T/Phosphor Bronze
- H = PBT/Beryllium Copper
- A = PPS/Beryllium Copper
- J = PA9T/Beryllium Copper

(Consult factory for other materials.)
Refer to Page 7 for Operating/Processing Temperatures

CONTACT FINISH - RoHS Compliant
All platings are Lead Free and have .000050" Nickel underplate

	Contact Surface	Termination
B =	.000010" Gold	.000100" Pure Tin, Matte
C =	.000030" Gold	.000100" Pure Tin, Matte
G =	.000010" Gold	.000005" Gold
Y =	.000030" Gold	.000005" Gold

	Contact Surface	Overall Plating
S =	.000010" Gold	.000010" Gold
M =	.000030" Gold	.000010" Gold
E =	.000100" Pure Tin, Matte	.000100" Pure Tin, Matte

CONTACT CENTERS
- C = .100" [2.54 mm]

NUMBER OF CONTACT POSITIONS
See Chart Below

READOUT (Opposite Page)
- D = Dual
- H = Half Loaded

MODIFICATION CODE (Consult Factory)
OMIT FOR STANDARD
- -S189 = .200" [5.08 mm] Row to Row on Right Angle
- -S288* = Card Extender Accepts .062" [1.57 mm] PCB
- * Not Required on KR or KN Terminations

MOUNTING STYLE (Opposite Page)
- H = Clearance Holes
- I = Threaded Inserts
- S = Side Mounting
- N = No Mounting
- D, W = Flush Mounting
- T, X = Flush Mounting With Threaded Inserts

TERMINATION TYPE (Opposite Page)

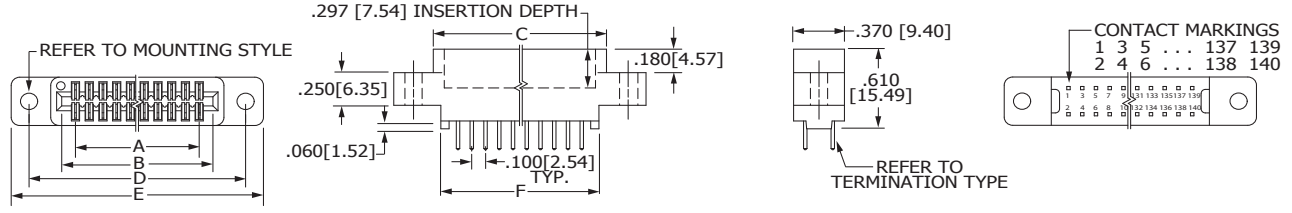
Hairpin Bellows - Available with B or C plating and Phosphor Bronze Only
- CS = .025" [0.64 mm] Square Dip Solder
- CM = .025" [0.64 mm] Square Wire Wrap
- CA, CB, CC = .025" [0.64 mm] Square Right Angle
- CW, CT = .015" X .025" [0.38 mm X 0.64 mm] Dip Solder

Loop Bellows
- RS = .025" [0.64 mm] Square Dip Solder
- CK, TK = .025" [0.64 mm] Round Dip Solder
- RM = .025" [0.64 mm] Square Wire Wrap
- TA, TB, TM = .025" [0.64 mm] Square Right Angle

Cantilever Bellows - Available in Y, B, or C plating Only
- KS, KD = .025" [0.64 mm] Square Dip Solder
- KM = .025" [0.64 mm] Square Wire Wrap
- KA, KE, KU, KJ = .025" [0.64 mm] Square Right Angle
- KR, KN = .025" [0.64 mm] Square Card Extender

DIMENSIONS

Dimensions in [ ] are in millimeters, all others are in inches.



Tolerances on non-critical dimensions may very slightly due to shrinkage differential per insulator material; Consult factory.

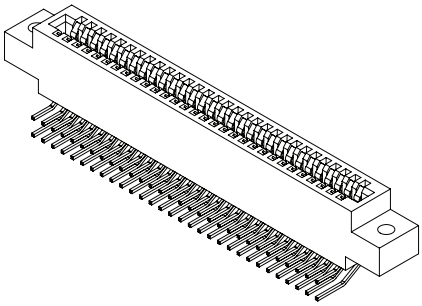
POSITIONS/ CONTACTS	INCHES						MILLIMETERS					
	A±.008	B±.008	C±.015	D±.010	E±.020	F±.015	A±0.20	B±0.20	C±0.38	D±0.25	E±0.51	F±0.38
06/12	0.500	0.700	0.860	1.175	1.435	0.750	12.70	17.78	21.84	29.85	36.45	19.05
07/14	0.600	0.800	0.960	1.275	1.535	0.850	15.24	20.32	24.38	32.39	38.99	21.59
08/16	0.700	0.900	1.060	1.375	1.635	0.950	17.78	22.86	26.92	34.93	41.53	24.13
10/20	0.900	1.100	1.260	1.575	1.835	1.150	22.86	27.94	32.00	40.01	46.61	29.21
12/24	1.100	1.300	1.460	1.775	2.035	1.350	27.94	33.02	37.08	45.09	51.69	34.29
13/26	1.200	1.400	1.560	1.875	2.135	1.450	30.48	35.56	39.62	47.63	54.23	36.83
15/30	1.400	1.600	1.760	2.075	2.335	1.650	35.56	40.64	44.70	52.71	59.31	41.91
17/34	1.600	1.800	1.960	2.275	2.535	1.850	40.64	45.72	49.78	57.79	64.39	46.99
18/36	1.700	1.900	2.060	2.375	2.635	1.950	43.18	48.26	52.32	60.33	66.93	49.53
20/40	1.900	2.100	2.260	2.575	2.835	2.150	48.26	53.34	57.40	65.41	72.01	54.61
22/44	2.100	2.300	2.460	2.775	3.035	2.350	53.34	58.42	62.48	70.49	77.09	59.69
24/48	2.300	2.500	2.660	2.975	3.235	2.550	58.42	63.50	67.56	75.57	82.17	64.77
25/50	2.400	2.600	2.760	3.075	3.335	2.650	60.96	66.04	70.10	78.11	84.71	67.31
28/56	2.700	2.900	3.060	3.375	3.635	2.950	68.58	73.66	77.72	85.73	92.33	74.93
30/60	2.900	3.100	3.260	3.575	3.835	3.150	73.66	78.74	82.80	90.81	97.41	80.01
31/62	3.000	3.200	3.360	3.675	3.935	3.250	76.20	81.28	85.34	93.35	99.95	82.55
35/70	3.400	3.600	3.760	4.075	4.335	3.650	86.36	91.44	95.50	103.51	110.11	92.71
36/72	3.500	3.700	3.860	4.175	4.435	3.750	88.90	93.98	98.04	106.05	112.65	95.25
40/80	3.900	4.100	4.260	4.575	4.835	4.150	99.06	104.14	108.20	116.21	122.81	105.41
43/86	4.200	4.400	4.560	4.875	5.135	4.450	106.68	111.76	115.82	123.83	130.43	113.03
44/88	4.300	4.500	4.660	4.975	5.235	4.550	109.22	114.30	118.36	126.37	132.97	115.57
49/98*	4.800	5.000	5.160	5.475	5.735	5.050	121.92	127.00	131.06	139.07	145.67	128.27
50/100	4.900	5.100	5.260	5.575	5.835	5.150	124.46	129.54	133.60	141.61	148.21	130.81
55/110	5.400	5.600	5.760	6.075	6.335	5.650	137.16	142.24	146.30	154.31	160.91	143.51
60/120	5.900	6.100	6.260	6.575	6.835	6.150	149.86	154.94	159.00	167.01	173.61	156.21
61/122	6.000	6.200	6.360	6.675	6.935	6.250	152.40	157.48	161.54	169.55	176.15	158.75
65/130	6.400	6.600	6.760	7.075	7.335	6.650	162.56	167.64	171.70	179.71	186.31	168.91
70/140	6.900	7.100	7.260	7.575	7.835	7.150	175.26	180.34	184.40	192.41	199.01	181.61
80/160*	7.900	8.100	8.260	8.575	8.835	8.150	200.66	205.74	209.80	217.81	224.41	207.01
90/180*	8.900	9.100	9.260	9.575	9.835	9.150	226.06	231.14	235.20	243.21	249.81	232.41
100/200*	9.900	10.100	10.260	10.575	10.835	10.150	251.46	256.54	260.60	268.61	275.21	257.81

* Consult factory for availability.

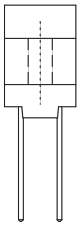
.100" [2.54 mm] Contact Centers, .610" [15.49 mm] Profile, .400" [10.16 mm] Wide Body, Dip Solder/Wire Wrap/Right Angle/Card Extender for .062" or .093" Mating PCB

SPECIFICATIONS

- Accommodates .062" ± .008" [1.57 mm ± 0.20 mm] or .093" ± .008" [2.36 mm ± 0.20 mm] mating PCB
- PPS, PBT or PA9T insulator
- 3 Amps current rating for one contact energized
- 30 milli Ohms maximum at rated current
- UL Flammability Rating: 94V-0

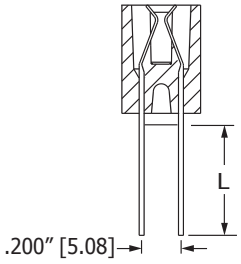


READOUT

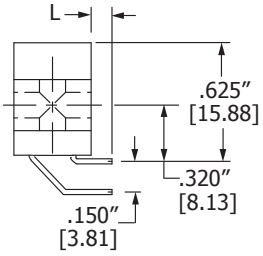


DUAL (D)

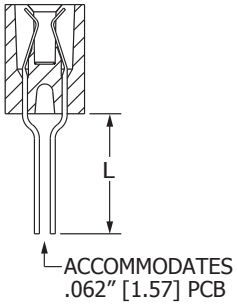
TERMINATION TYPE



DIP SOLDER/WIRE WRAP
(KS, KD, KM)



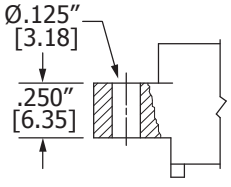
RIGHT ANGLE
(KA, KE, KU, KJ)



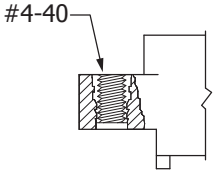
CARD EXTENDER
(KR, KN)

TERMINATION	TERMINATION TYPE	POST LENGTH L ±.025"[0.64]	FITS MIN. HOLE SIZE	STANDOFF
KD	DIP SOLDER	.160" [4.06]	.043" [1.09]	YES
KS	DIP SOLDER	.190" [4.83]	.040" [1.02]	YES
KM	WIRE WRAP	.560" [14.22]	.040" [1.02]	YES
KA	RIGHT ANGLE	.100" [2.54]	.043" [1.09]	NO
KE	RIGHT ANGLE	.180" [4.57]	.043" [1.09]	NO
KU	RIGHT ANGLE	.250" [6.35]	.043" [1.09]	NO
KJ	RIGHT ANGLE	.500" [12.70]	.043" [1.09]	NO
KR	CARD EXTENDER	.235" [5.97]	N/A	NO
KN	CARD EXTENDER	.605" [15.37]	N/A	NO

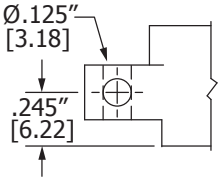
MOUNTING STYLE



CLEARANCE
HOLE (H)



THREADED
INSERT (I)



SIDE MOUNTING
(S)

NO MOUNTING
EARS (N)

.100" [2.54 mm] Contact Centers, .610" [15.49 mm] Profile, .400" [10.16 mm] Wide Body, Dip Solder/Wire Wrap/Right Angle/Card Extender for .062" or .093" Mating PCB

PART NUMBER OPTIONS

A B C 30 D KE H - S1191

MATERIALS (INSULATOR/CONTACT)
E = PBT/Phosphor Bronze
R = PPS/Phosphor Bronze
G = PA9T/Phosphor Bronze
H = PBT/Beryllium Copper
A = PPS/Beryllium Copper
J = PA9T/Beryllium Copper
(Consult factory for other materials.)
Refer to Page 7 for Operating/Processing Temperatures

CONTACT FINISH - RoHS Compliant
All platings are Lead Free and have .000050" Nickel underplate

	Contact Surface	Termination
B =	.000010" Gold	.000100" Pure Tin, Matte
C =	.000030" Gold	.000100" Pure Tin, Matte
Y =	.000030" Gold	.000005" Gold

CONTACT CENTERS
C = .100" [2.54 mm]

NUMBER OF CONTACT POSITIONS
See Chart Below

MODIFICATION CODE (Consult Factory)
-S1243 = For .062" ± .008" [1.57 mm ± 0.20 mm] PCB
-S1191 = For .093" ± .008" [2.36 mm ± 0.20 mm] PCB

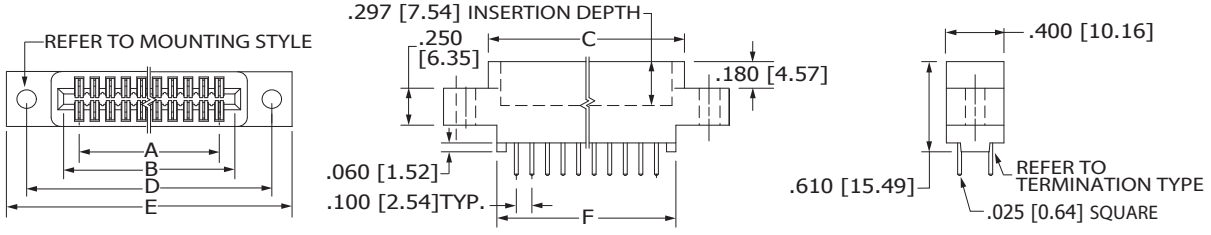
MOUNTING STYLE (Opposite Page)
H = Clearance Holes
I = Threaded Inserts
S = Side Mounting
N = No Mounting

TERMINATION TYPE (Opposite Page)
KD, KS = .025" [0.64 mm] Square Dip Solder
KM = .025" [0.64 mm] Square Wire Wrap
KA, KE, KU, KJ = .025" [0.64 mm] Square Right Angle
KN, KR = .025" [0.64 mm] Square Card Extender

READOUT (Opposite Page)
D = Dual

DIMENSIONS

Dimensions in [ ] are in millimeters, all others are in inches.



Tolerances on non-critical dimensions may very slightly due to shrinkage differential per insulator material; Consult factory.

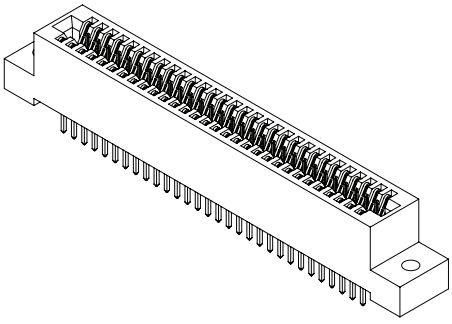
POSITIONS/ CONTACTS	INCHES						MILLIMETERS					
	A±.008	B±.012	C±.015	D±.010	E±.020	F±.015	A±0.20	B±0.30	C±0.38	D±0.25	E±0.51	F±0.38
04/08	0.300	0.500	0.660	0.975	1.235	0.542	7.62	12.70	16.76	24.77	31.37	13.77
05/10	0.400	0.600	0.760	1.075	1.335	0.642	10.16	15.24	19.30	27.31	33.91	16.31
06/12	0.500	0.700	0.860	1.175	1.435	0.742	12.70	17.78	21.84	29.85	36.45	18.85
07/14*	0.600	0.800	0.960	1.275	1.535	0.842	15.24	20.32	24.38	32.39	38.99	21.39
08/16	0.700	0.900	1.060	1.375	1.635	0.942	17.78	22.86	26.92	34.93	41.53	23.93
09/18	0.800	1.000	1.160	1.475	1.735	1.042	20.32	25.40	29.46	37.47	44.07	26.47
10/20	0.900	1.100	1.260	1.575	1.835	1.142	22.86	27.94	32.00	40.01	46.61	29.01
12/24	1.100	1.300	1.460	1.775	2.035	1.342	27.94	33.02	37.08	45.09	51.69	34.09
13/26*	1.200	1.400	1.560	1.875	2.135	1.442	30.48	35.56	39.62	47.63	54.23	36.63
15/30	1.400	1.600	1.760	2.075	2.335	1.642	35.56	40.64	44.70	52.71	59.31	41.71
16/32	1.500	1.700	1.860	2.175	2.435	1.742	38.10	43.18	47.24	55.25	61.85	44.25
17/34*	1.600	1.800	1.960	2.275	2.535	1.842	40.64	45.72	49.78	57.79	64.39	46.79
18/36*	1.700	1.900	2.060	2.375	2.635	1.942	43.18	48.26	52.32	60.33	66.93	49.33
20/40	1.900	2.100	2.260	2.575	2.835	2.142	48.26	53.34	57.40	65.41	72.01	54.41
22/44	2.100	2.300	2.460	2.775	3.035	2.342	53.34	58.42	62.48	70.49	77.09	59.49
24/48*	2.300	2.500	2.660	2.975	3.235	2.542	58.42	63.50	67.56	75.57	82.17	64.57
25/50	2.400	2.600	2.760	3.075	3.335	2.642	60.96	66.04	70.10	78.11	84.71	67.11
28/56*	2.700	2.900	3.060	3.375	3.635	2.942	68.58	73.66	77.72	85.73	92.33	74.73
30/60	2.900	3.100	3.260	3.575	3.835	3.142	73.66	78.74	82.80	90.81	97.41	79.81
31/62*	3.000	3.200	3.360	3.675	3.935	3.242	76.20	81.28	85.34	93.35	99.95	82.35
35/70	3.400	3.600	3.760	4.075	4.335	3.642	86.36	91.44	95.50	103.51	110.11	92.51
36/72*	3.500	3.700	3.860	4.175	4.435	3.742	88.90	93.98	98.04	106.05	112.65	95.05
40/80	3.900	4.100	4.260	4.575	4.835	4.142	99.06	104.14	108.20	116.21	122.81	105.21
43/86	4.200	4.400	4.560	4.875	5.135	4.442	106.68	111.76	115.82	123.83	130.43	112.83
44/88	4.300	4.500	4.660	4.975	5.235	4.542	109.22	114.30	118.36	126.37	132.97	115.37
49/98*	4.800	5.000	5.160	5.475	5.735	5.042	121.92	127.00	131.06	139.07	145.67	128.07
50/100	4.900	5.100	5.260	5.575	5.835	5.142	124.46	129.54	133.60	141.61	148.21	130.61
55/110	5.400	5.600	5.760	6.075	6.335	5.642	137.16	142.24	146.30	154.31	160.91	143.31
60/120*	5.900	6.100	6.260	6.575	6.835	6.142	149.86	154.94	159.00	167.01	173.61	156.01
61/122*	6.000	6.200	6.360	6.675	6.935	6.242	152.40	157.48	161.54	169.55	176.15	158.55
65/130	6.400	6.600	6.760	7.075	7.335	6.642	162.56	167.64	171.70	179.71	186.31	168.71
70/140	6.900	7.100	7.260	7.575	7.835	7.142	175.26	180.34	184.40	192.41	199.01	181.41

* Consult factory for availability.

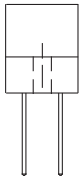
.100" [2.54 mm] Contact Centers, .610" [15.49 mm] Profile, .470" [11.94 mm] Wide Body, Dip Solder/Wire Wrap/Right Angle for .093" or .125" Mating PCB

SPECIFICATIONS

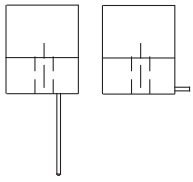
- Accommodates .093" ± .008" [2.36 mm ± 0.20 mm] or .125" ± .008" [3.18 mm ± 0.20 mm] mating PCB (Consult Factory for .031" ± .006" [0.79 mm ± 0.15 mm] PC Board)
- PBT, PPS or PA9T insulator
- Molded-in key available
- 3 Amps current rating for one contact energized
- 30 milli Ohms maximum at rated current
- UL Flammability Rating: 94V-0



READOUT

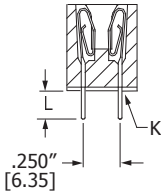


DUAL (D)

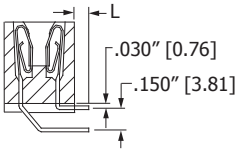


HALF LOADED (H)

TERMINATION TYPE



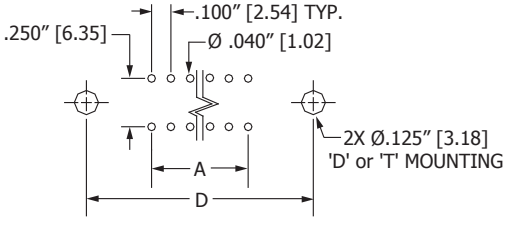
LOOP BELLOWS (RS, RM)



RIGHT ANGLE DIP SOLDER (TA, TB, TM)

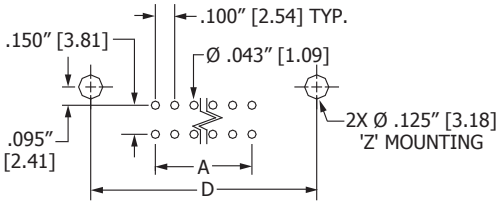
TERMINATION TYPE		POST CROSS SECTION (K)	POST LENGTH L ±.025'[0.64]	FITS MIN. HOLE SIZE
RS	Dip Solder	.025" [0.64] SQ.	.190" [4.83]	.040" [1.02]
RM	Wire Wrap	.025" [0.64] SQ.	.560" [14.20]	.040" [1.02]
TA	Right Angle	.025" [0.64] SQ.	.100" [2.54]	.043" [1.09]
TB	Right Angle	.025" [0.64] SQ.	.180" [4.57]	.043" [1.09]
TM	Right Angle	.025" [0.64] SQ.	.250" [6.35]	.043" [1.09]

PCB LAYOUT



STRAIGHT PIN (RS, RM) TERMINATIONS

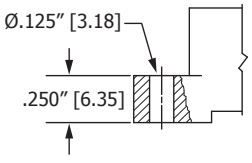
COMPONENT SIDE



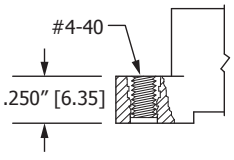
RIGHT ANGLE (TA, TB, TM) TERMINATIONS

MOUNTING STYLE

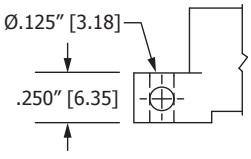
NO MOUNTING EARS (N)



FLUSH MOUNTING (D)



FLUSH MOUNTING WITH THREADED INSERT (T)



FLUSH MOUNTING WITH SIDE HOLES (Z)

.100" [2.54 mm] Contact Centers, .610" [15.49 mm] Profile, .470" [11.94 mm] Wide Body, Dip Solder/Wire Wrap/Right Angle for .093" or .125" Mating PCB

PART NUMBER OPTIONS

E B C 70 D RM D - S273

MATERIALS (INSULATOR/CONTACT)
- E = PBT/Phosphor Bronze
- R = PPS/Phosphor Bronze
- G = PA9T/Phosphor Bronze
- H = PBT/Beryllium Copper
- A = PPS/Beryllium Copper
- J = PA9T/Beryllium Copper

(Consult factory for other materials.)
Refer to Page 7 for Operating/Processing Temperatures

CONTACT FINISH - RoHS Compliant
All platings are Lead Free and have .000050" Nickel underplate

	Contact Surface	Termination
B =	.000010" Gold	.000100" Pure Tin, Matte
C =	.000030" Gold	.000100" Pure Tin, Matte
G =	.000010" Gold	.000005" Gold
Y =	.000030" Gold	.000005" Gold

	Contact Surface	Overall Plating
S =	.000010" Gold	.000010" Gold
M =	.000030" Gold	.000010" Gold
E =	.000100" Pure Tin, Matte	.000100" Pure Tin, Matte

MODIFICATION CODE (Consult Factory)
- -S273 = FOR .093" ± .008" [2.36 mm ± 0.20 mm] THICK MATING PCB
- -S664 = FOR .125" ± .008" [3.18 mm ± 0.20 mm] THICK MATING PCB

MOUNTING STYLE (Opposite Page)
- N = No Mounting
- D = Flush Mounting
- T = Flush Mounting With Threaded Inserts
- Z = Flush Mounting With Side Holes

TERMINATION TYPE (Opposite Page)
- RS = .025" [0.64 mm] Square Dip Solder
- RM = .025" [0.64 mm] Square Wire Wrap
- TA, TB, TM = .025" [0.64 mm] Square Right Angle

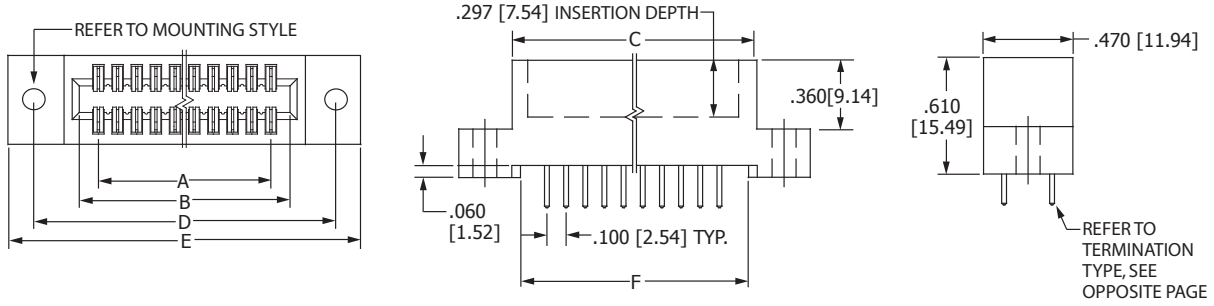
READOUT (Opposite Page)
- D = Dual
- H = Half Loaded

NUMBER OF CONTACT POSITIONS
See Chart Below

CONTACT CENTERS
- C = .100" [2.54 mm]

DIMENSIONS

Dimensions in [ ] are in millimeters, all others are in inches.



Tolerances on non-critical dimensions may very slightly due to shrinkage differential per insulator material; Consult factory.

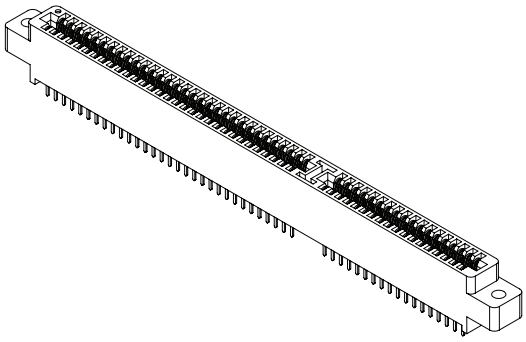
POSITIONS/ CONTACTS	INCHES						MILLIMETERS					
	A±.008	B±.008	C±.015	D±.010	E±.020	F±.015	A±0.20	B±0.20	C±0.38	D±0.25	E±0.51	F±0.38
06/12	0.500	0.700	0.860	1.175	1.435	0.750	12.70	17.78	21.84	29.85	36.45	19.05
07/14*	0.600	0.800	0.960	1.275	1.535	0.850	15.24	20.32	24.38	32.39	38.99	21.59
08/16*	0.700	0.900	1.060	1.375	1.635	0.950	17.78	22.86	26.92	34.93	41.53	24.13
10/20	0.900	1.100	1.260	1.575	1.835	1.150	22.86	27.94	32.00	40.01	46.61	29.21
12/24	1.100	1.300	1.460	1.775	2.035	1.350	27.94	33.02	37.08	45.09	51.69	34.29
15/30*	1.400	1.600	1.760	2.075	2.335	1.650	35.56	40.64	44.70	52.71	59.31	41.91
17/34	1.600	1.800	1.960	2.275	2.535	1.850	40.64	45.72	49.78	57.79	64.39	46.99
18/36	1.700	1.900	2.060	2.375	2.635	1.950	43.18	48.26	52.32	60.33	66.93	49.53
20/40*	1.900	2.100	2.260	2.575	2.835	2.150	48.26	53.34	57.40	65.41	72.01	54.61
22/44	2.100	2.300	2.460	2.775	3.035	2.350	53.34	58.42	62.48	70.49	77.09	59.69
24/48*	2.300	2.500	2.660	2.975	3.235	2.550	58.42	63.50	67.56	75.57	82.17	64.77
25/50*	2.400	2.600	2.760	3.075	3.335	2.650	60.96	66.04	70.10	78.11	84.71	67.31
28/56	2.700	2.900	3.060	3.375	3.635	2.950	68.58	73.66	77.72	85.73	92.33	74.93
30/60	2.900	3.100	3.260	3.575	3.835	3.150	73.66	78.74	82.80	90.81	97.41	80.01
31/62*	3.000	3.200	3.360	3.675	3.935	3.250	76.20	81.28	85.34	93.35	99.95	82.55
35/70	3.400	3.600	3.760	4.075	4.335	3.650	86.36	91.44	95.50	103.51	110.11	92.71
36/72	3.500	3.700	3.860	4.175	4.435	3.750	88.90	93.98	98.04	106.05	112.65	95.25
40/80*	3.900	4.100	4.260	4.575	4.835	4.150	99.06	104.14	108.20	116.21	122.81	105.41
43/86	4.200	4.400	4.560	4.875	5.135	4.450	106.68	111.76	115.82	123.83	130.43	113.03
44/88*	4.300	4.500	4.660	4.975	5.235	4.550	109.22	114.30	118.36	126.37	132.97	115.57
49/98*	4.800	5.000	5.160	5.475	5.735	5.050	121.92	127.00	131.06	139.07	145.67	128.27
50/100	4.900	5.100	5.260	5.575	5.835	5.150	124.46	129.54	133.60	141.61	148.21	130.81
55/110	5.400	5.600	5.760	6.075	6.335	5.650	137.16	142.24	146.30	154.31	160.91	143.51
60/120*	5.900	6.100	6.260	6.575	6.835	6.150	149.86	154.94	159.00	167.01	173.61	156.21
61/122	6.000	6.200	6.360	6.675	6.935	6.250	152.40	157.48	161.54	169.55	176.15	158.75
65/130*	6.400	6.600	6.760	7.075	7.335	6.650	162.56	167.64	171.70	179.71	186.31	168.91
70/140	6.900	7.100	7.260	7.575	7.835	7.150	175.26	180.34	184.40	192.41	199.01	181.61

* Consult factory for availability.

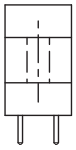
.100" [2.54 mm] Contact Centers, .610" [15.49 mm] Insulator Height, [ISA] Dip Solder/Wire Wrap/Right Angle

SPECIFICATIONS

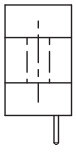
- Accommodates .062" ± .008" [1.57 mm ± 0.20 mm] PC board
- PBT or PA9T insulator
- Molded-in key available
- 3 Amps current rating for one contact energized
- 30 milli Ohms maximum at rate current
- UL Flammability Rating: 94V-0



READOUT



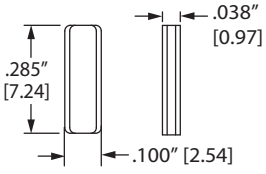
DUAL (D)



HALF LOADED (H)

POLARIZING KEY

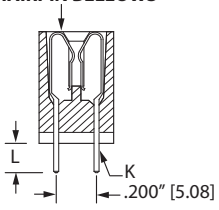
PLC-K1



KEY IN BETWEEN CONTACTS (ORDER SEPARATELY)

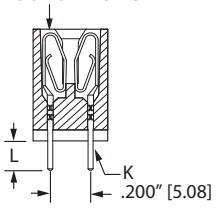
TERMINATION TYPE

HAIRPIN BELLOWS

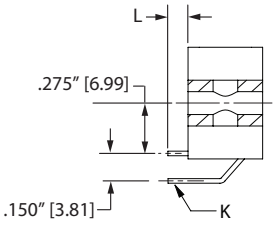


HAIRPIN BELLOWS (CS,CM,CW,CT)

LOOP BELLOWS



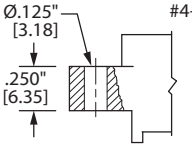
LOOP BELLOWS (TK,RS,RM)



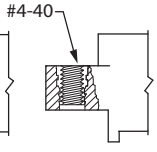
RIGHT ANGLE, DIP SOLDER (CA,CB,CC,TA,TB,TM) -S605 MODIFICATION

HAIRPIN BELLOWS	LOOP	TERMINATION TYPE	POST CROSS SECTION K	POST LENGTH L .025"'[0.64]	FITS MIN. HOLE SIZE
	TK, CK	DIP SOLDER	.025" [0.64] ROUND	.190" [4.83]	.033" [0.84]
	RS	DIP SOLDER	.025" [0.64] SQUARE	.190" [4.83]	.040" [1.02]
CM	RM	WIRE WRAP	.025" [0.64] SQUARE	.560" [14.20]	.040" [1.02]
CA	TA	RIGHT ANGLE	.025" [0.64] SQUARE	.100" [2.54]	.043" [1.09]
CB	TB	RIGHT ANGLE	.025" [0.64] SQUARE	.180" [4.57]	.043" [1.09]
CC	TM	RIGHT ANGLE	.025" [0.64] SQUARE	.250" [6.35]	.043" [1.09]
CW		DIP SOLDER	.015" X .025" [0.38 X 0.64]	.125" [3.18]	.035" [0.89]
CT		DIP SOLDER	.015" X .025" [0.38 X 0.64]	.170" [4.32]	.035" [0.89]
CS		DIP SOLDER	.025" [0.64] SQUARE	.160" [4.06]	.040" [1.02]

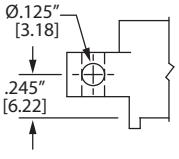
MOUNTING STYLE



CLEARANCE HOLE (H)

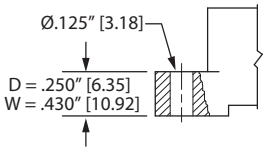


THREADED INSERT(I)

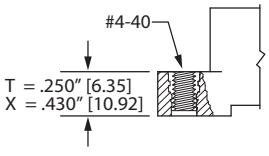


SIDE MOUNTING (S)

NO MOUNTING EARS (N)



FLUSH MOUNTING (D, W)



FLUSH MOUNTING WITH THREADED INSERT(T, X)

.100" [2.54 mm] Contact Centers, .610" [15.49 mm] Insulator Height, [ISA] Dip Solder/Wire Wrap/Right Angle

PART NUMBER OPTIONS

E B C 49 D CW N - S420

MATERIALS (INSULATOR/CONTACT)
- E = PBT/Phosphor Bronze (Standard)
- G = PA9T/Phosphor Bronze
- H = PBT/Beryllium Copper
- J = PA9T/Beryllium Copper

(Consult factory for other materials.)
Refer to Page 7 for Operating/Processing Temperatures

CONTACT FINISH - RoHS Compliant
All platings are Lead Free and have .000050" Nickel underplate

	Contact Surface	Termination
B =	.000010" Gold	.000100" Pure Tin, Matte
C =	.000030" Gold	.000100" Pure Tin, Matte
G =	.000010" Gold	.000005" Gold
Y =	.000030" Gold	.000005" Gold

	Contact Surface	Overall Plating
S =	.000010" Gold	.000010" Gold
M =	.000030" Gold	.000010" Gold
E =	.000100" Pure Tin, Matte	.000100" Pure Tin, Matte

CONTACT CENTERS
- C = .100" [2.54 mm]

NUMBER OF CONTACT POSITIONS
18, 31 or 49 (31/18)

READOUT (Opposite page)
- D = Dual
- H = Half Loaded

MODIFICATION CODE (Consult Factory)
ISA WITH RETENTION FEATURE
- -S524 = 18 Positions
- -S524 = 31 Positions
- -S518 = 49 Positions (31/18)

ISA WITHOUT RETENTION FEATURE
- -S371 = 18 Positions
- -S371 = 31 Positions
- -S420 = 49 Positions (31/18) Dip Solder or Wire Wrap
- -S605 = 49 Positions (31/18) Right Angle**

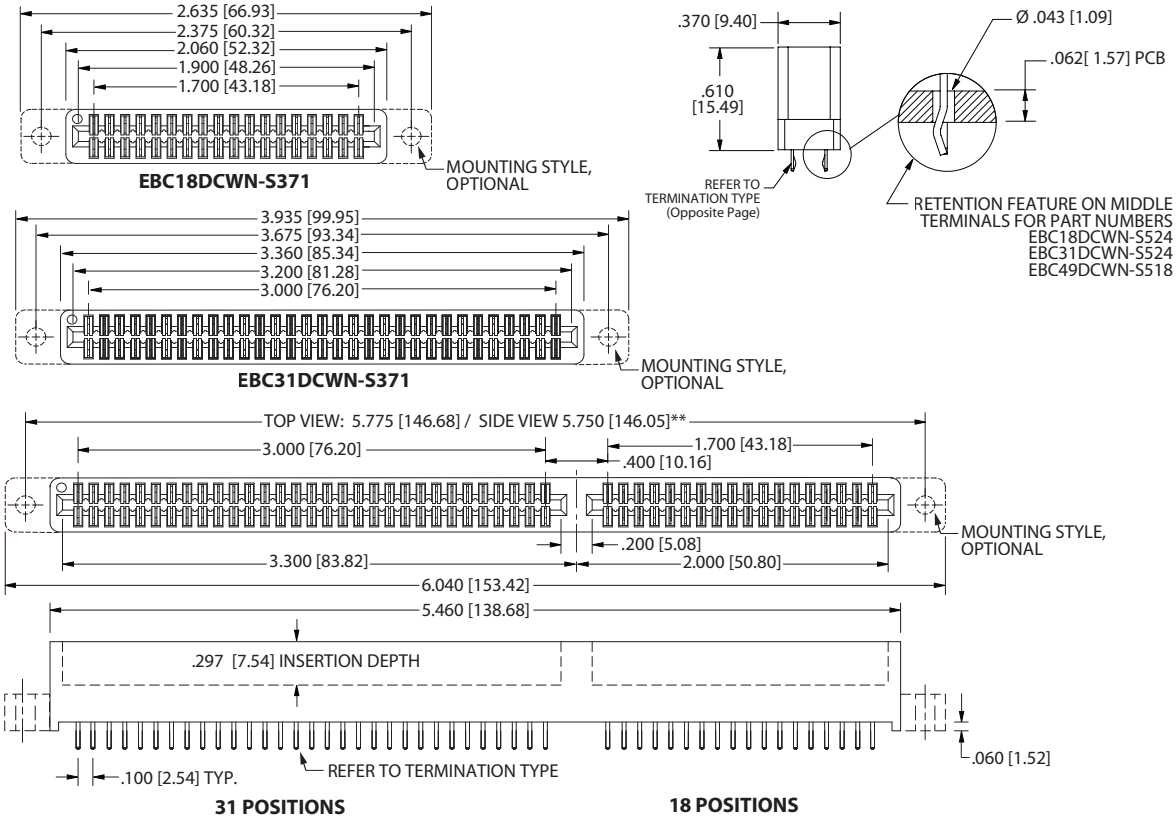
MOUNTING STYLE (Opposite Page)
- H = Clearance Holes
- I = Threaded Inserts
- S = Side Mounting
- N = No Mounting
- D, W = Flush Mounting
- T, X = Flush Mounting With Threaded Inserts

TERMINATION TYPE (Opposite Page)
Hairpin Bellows *
- CS = .025" [0.64 mm] Square Dip Solder
- CM = .025" [0.64 mm] Square Wire Wrap
- CA, CB, CC = .025" [0.64 mm] Square Right Angle
- CW, CT = .015" X .025" [0.38 mm X 0.64 mm] Dip Solder

Loop Bellows
- RS = .025" [0.64 mm] Square Dip Solder
- TK = .025" [0.64 mm] Round Dip Solder
- RM = .025" [0.64 mm] Square Wire Wrap
- TA, TB, TM = .025" [0.64 mm] Square Right Angle

*** Available in B or C Plating and Phosphor Bronze only**
Consult Factory for Cantilever Terminations

DIMENSIONS
Dimensions in [ ] are in millimeters, all others are in inches.



EBC49DCWN-S420 (DIP SOLDER OR WIRE WRAP)
EBC49DCAN-S605 (RIGHT ANGLE)

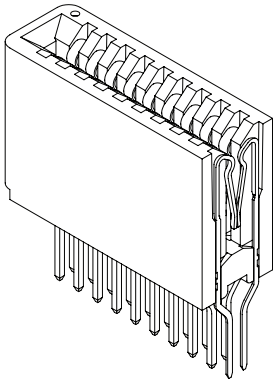
**** 5.750 [146.05] ONLY APPLIES IF P/N ENDS WITH -S605 AND HAS SIDE MOUNTING (MTG CODE 'S')**

SULLINS

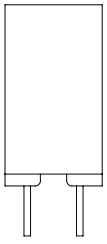
.100" [2.54 mm] Contact Centers, .690" [17.52 mm] Insulator Height, Make Before Break Dip Solder/Card Extender/Right Angle

SPECIFICATIONS

- Accommodates .062" ± .008" [1.57 mm ± 0.20 mm] PC board
- PA9T insulator
- Molded-in key available
- 3 Amps current rating for one contact energized
- 30 milli Ohms maximum at rated current
- UL Flammability Rating: 94V-0



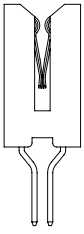
READOUT



DUAL (D)

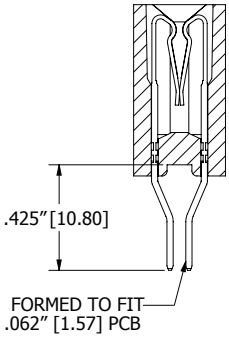
MOUNTING STYLE

NO MOUNTING EARS (N)

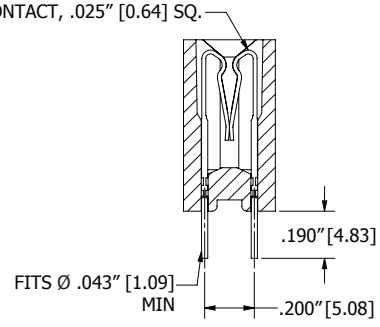


OPEN CARD SLOT (B)

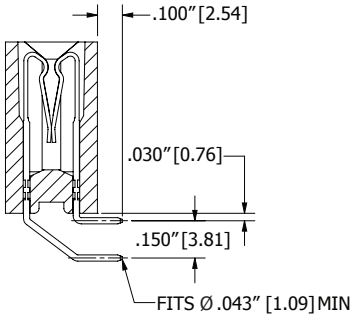
TERMINATION TYPE



CARD EXTENDER (CS)
GBC_ _DCSN-S527



DIP SOLDER (CS)
GBC_ _DCSN-S36



RIGHT ANGLE (CA)
GBC_ _DCAN-S757

.100" [2.54 mm] Contact Centers, .690" [17.52 mm] Insulator Height, Make Before Break Dip Solder/Card Extender/Right Angle

PART NUMBER OPTIONS

G B C 10 D CS N - S36

MATERIALS (INSULATOR/CONTACT)
G = PA9T/Phosphor Bronze
(Consult factory for other materials.)
Refer to Page 7 for Operating/Processing Temperatures

CONTACT FINISH - RoHS Compliant
All platings are Lead Free and have .000050" Nickel underplate

	Contact Surface	Termination
B =	.000010" Gold	.000100" Pure Tin, Matte
C =	.000030" Gold	.000100" Pure Tin, Matte

CONTACT CENTERS
C = .100" [2.54 mm]

NUMBER OF CONTACT POSITIONS
See Chart Below

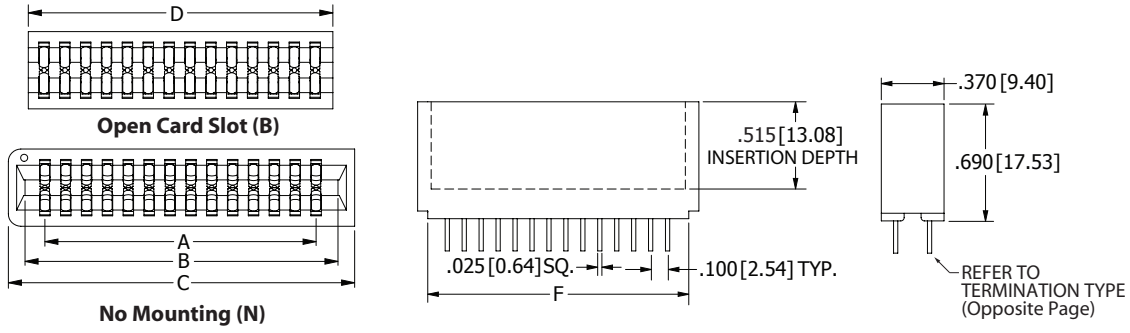
MODIFICATION CODE (Consult Factory)
-S757 = MBB, .150" [3.81] Row to Row on Right Angle
-S527 = MBB, Card Extender Accepts .062" [1.57 mm] PCB
-S36 = MBB, Straight Dip-Solder

MOUNTING STYLE
N = No Mounting
B = Open Card Slot Available for 50 position only

TERMINATION TYPE (Opposite Page)
Hairpin Bellows
CS = .025" [0.64 mm] Square Dip Solder/Card Extender
CA = .025" [0.64 mm] Square Right Angle

READOUT (Opposite Page)
D = Dual

DIMENSIONS
Dimensions in [ ] are in millimeters, all others are in inches.



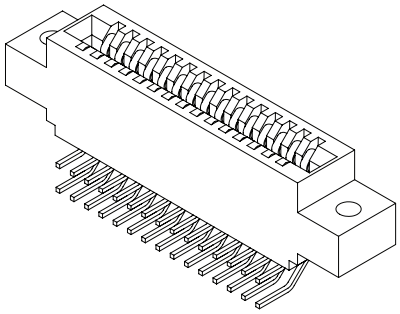
POSITIONS/ CONTACTS	A±.008 [0.20]		B±.008 [0.20]		C±.015 [0.38]		D±.020 [0.51]		F±.020 [0.51]	
	in	mm	in	mm	in	mm	in	mm	in	mm
02/04*	0.100	2.54	0.300	7.62	0.460	11.68	0.250	6.35	0.340	8.64
04/08*	0.300	7.62	0.500	12.70	0.660	16.76	0.450	11.43	0.540	13.72
06/12*	0.500	12.70	0.700	17.78	0.860	21.84	0.650	16.51	0.740	18.80
08/16*	0.700	17.78	0.900	22.86	1.060	26.92	0.850	21.59	0.940	23.88
10/20*	0.900	22.86	1.100	27.94	1.260	32.00	1.050	26.67	1.140	28.96
12/24*	1.100	27.94	1.300	33.02	1.460	37.08	1.250	31.75	1.340	34.04
14/28	1.300	33.02	1.500	38.10	1.660	42.16	1.450	36.83	1.540	39.12
16/32*	1.500	38.10	1.700	43.18	1.860	47.24	1.650	41.91	1.740	44.20
18/36*	1.700	43.18	1.900	48.26	2.060	52.32	1.850	46.99	1.940	49.28
20/40*	1.900	48.26	2.100	53.34	2.260	57.40	2.050	52.07	2.140	54.36
22/44*	2.100	53.34	2.300	58.42	2.460	62.48	2.250	57.15	2.340	59.44
24/48*	2.300	58.42	2.500	63.50	2.660	67.56	2.450	62.23	2.540	64.52
26/52*	2.500	63.50	2.700	68.58	2.860	72.64	2.650	67.31	2.740	69.60
28/56*	2.700	68.58	2.900	73.66	3.060	77.72	2.850	72.39	2.940	74.68
30/60*	2.900	73.66	3.100	78.74	3.260	82.80	3.050	77.47	3.140	79.76
32/64*	3.100	78.74	3.300	83.82	3.460	87.88	3.250	82.55	3.340	84.84
34/68*	3.300	83.82	3.500	88.90	3.660	92.96	3.450	87.63	3.540	89.92
36/72*	3.500	88.90	3.700	93.98	3.860	98.04	3.650	92.71	3.740	95.00
38/76*	3.700	93.98	3.900	99.06	4.060	103.12	3.850	97.79	3.940	100.08
40/80*	3.900	99.06	4.100	104.14	4.260	108.20	4.050	102.87	4.140	105.16
42/84*	4.100	104.14	4.300	109.22	4.460	113.28	4.250	107.95	4.340	110.24
44/88*	4.300	109.22	4.500	114.30	4.660	118.36	4.450	113.03	4.540	115.32
46/92*	4.500	114.30	4.700	119.38	4.860	123.44	4.650	118.11	4.740	120.40
48/96*	4.700	119.38	4.900	124.46	5.060	128.52	4.850	123.19	4.940	125.48
50/100	4.900	124.46	5.100	129.54	5.260	133.60	5.050	128.27	5.140	130.56

* Consult factory for availability.

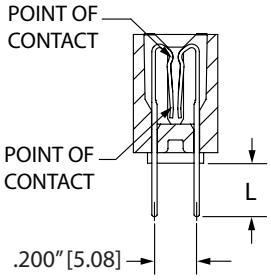
.100" [2.54 mm] Contact Centers, .560" [14.22 mm] Profile, .400" [10.16 mm] Wide Body, Double Point Contact, Dip Solder/Wire Wrap/Right Angle/Card Extender

SPECIFICATIONS

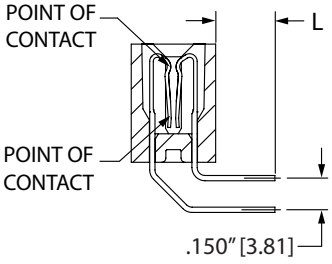
- Accommodates .062" ± .008" [1.57 mm ± 0.20 mm] PC board
- PPS, PBT or PA9T insulator
- 3 Amps current rating for one contact energized
- 30 milli Ohms maximum at rated current
- UL Flammability Rating: 94V-0



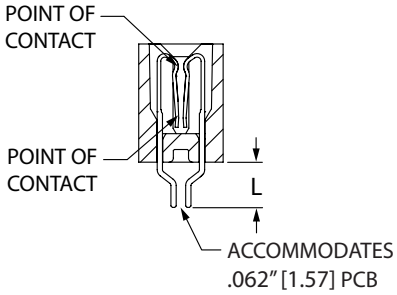
TERMINATION TYPE



DIP SOLDER/WIRE WRAP (PD, PF, PS, PM)



RIGHT ANGLE (PB, PG, PE, PJ, PU)

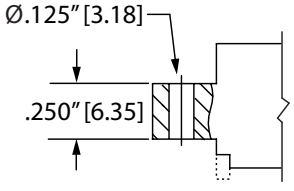


CARD EXTENDER (PN, PR)

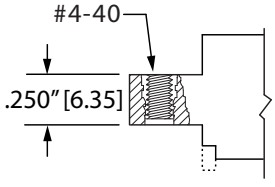
TERMINATION	TERMINATION TYPE	* POST LENGTH L ±.025"[0.64]	FITS MIN. HOLE SIZE	STANDOFF
PD	DIP SOLDER	.160" [4.06]	.043" [1.09]	YES
PS	DIP SOLDER	.190" [4.83]	.043" [1.09]	YES
PF	DIP SOLDER	.270" [6.86]	.043" [1.09]	YES
PM	WIRE WRAP	.560" [14.22]	.043" [1.09]	YES
PB	RIGHT ANGLE	.100" [2.54]	.043" [1.09]	NO
PG	RIGHT ANGLE	.140" [3.56]	.043" [1.09]	NO
PE	RIGHT ANGLE	.180" [4.57]	.043" [1.09]	NO
PU	RIGHT ANGLE	.250" [6.35]	.043" [1.09]	NO
PJ	RIGHT ANGLE	.500" [12.70]	.043" [1.09]	NO
PR	CARD EXTENDER	.225" [5.73]	N/A	NO
PN	CARD EXTENDER	.595" [15.12]	N/A	NO

*** OTHER POST LENGTHS AVAILABLE, CONTACT FACTORY.**

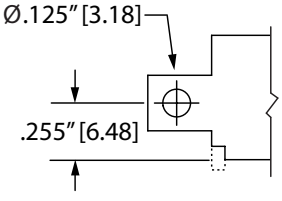
MOUNTING STYLE (Standoffs included on straight terminations only.)



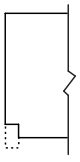
CLEARANCE HOLE (H)



THREADED INSERT (I)



SIDE MOUNTING (S)



NO MOUNTING EARS (N)

.100" [2.54 mm] Contact Centers, .560" [14.22 mm] Profile, .400" [10.16 mm] Wide Body, Double Point Contact, Dip Solder/Wire Wrap/Right Angle/Card Extender

PART NUMBER OPTIONS

E B C 10 D PD H - Sxxx

MATERIALS (INSULATOR/CONTACT)
E = PBT/Phosphor Bronze
R = PPS/Phosphor Bronze
G = PA9T/Phosphor Bronze
H = PBT/Beryllium Copper
A = PPS/Beryllium Copper
J = PA9T/Beryllium Copper
(Consult factory for other materials.)
Refer to Page 7 for Operating/Processing Temperatures

CONTACT FINISH - RoHS Compliant
All platings are Lead Free and have .000050" Nickel underplate

	Contact Surface	Termination
B =	.000010" Gold	.000100" Pure Tin, Matte
C =	.000030" Gold	.000100" Pure Tin, Matte

CONTACT CENTERS
C = .100" [2.54 mm]

NUMBER OF CONTACT POSITIONS
See Chart Below

MODIFICATION CODE (Consult Factory)
OMIT FOR STANDARD

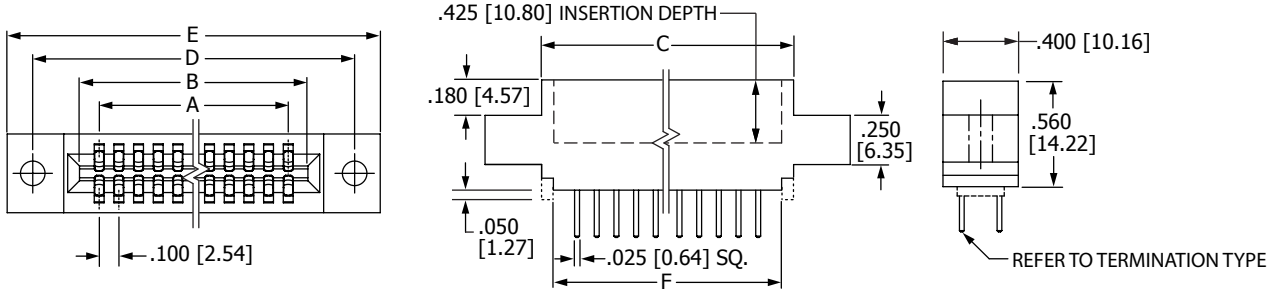
MOUNTING STYLE (Opposite Page)
H = Clearance Holes
I = Threaded Inserts
S = Side Mounting
N = No Mounting

TERMINATION TYPE (Opposite Page)
PD, PF, PS = .025" [0.64 mm] Square Dip Solder
PM = .025" [0.64 mm] Square Wire Wrap
PB, PG, PE, PJ, PU = .025" [0.64 mm] Square Right Angle
PN, PR = .025" [0.64 mm] Square Card Extender

READOUT (Opposite Page)
D = Dual

DIMENSIONS

Dimensions in [ ] are in millimeters, all others are in inches.



Tolerances on non-critical dimensions may very slightly due to shrinkage differential per insulator material; Consult factory.

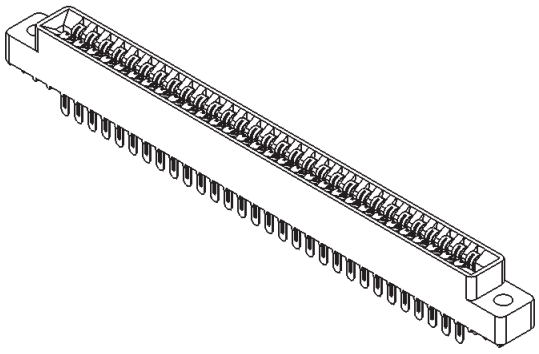
POSITIONS/ CONTACTS	INCHES						MILLIMETERS					
	A±.008	B±.008	C±.015	D±.010	E±.020	F±.015	A±0.20	B±0.20	C±0.38	D±0.25	E±0.51	F±0.38
06/12	0.500	0.700	0.860	1.175	1.435	0.740	12.70	17.78	21.84	29.85	36.45	18.80
07/14*	0.600	0.800	0.960	1.275	1.535	0.840	15.24	20.32	24.38	32.39	38.99	21.34
08/16	0.700	0.900	1.060	1.375	1.635	0.940	17.78	22.86	26.92	34.93	41.53	23.88
10/20	0.900	1.100	1.260	1.575	1.835	1.140	22.86	27.94	32.00	40.01	46.61	28.96
12/24*	1.100	1.300	1.460	1.775	2.035	1.340	27.94	33.02	37.08	45.09	51.69	34.04
13/26*	1.200	1.400	1.560	1.875	2.135	1.440	30.48	35.56	39.62	47.63	54.23	36.58
15/30	1.400	1.600	1.760	2.075	2.335	1.640	35.56	40.64	44.70	52.71	59.31	41.66
17/34*	1.600	1.800	1.960	2.275	2.535	1.840	40.64	45.72	49.78	57.79	64.39	46.74
18/36*	1.700	1.900	2.060	2.375	2.635	1.940	43.18	48.26	52.32	60.33	66.93	49.28
20/40	1.900	2.100	2.260	2.575	2.835	2.140	48.26	53.34	57.40	65.41	72.01	54.36
22/44*	2.100	2.300	2.460	2.775	3.035	2.340	53.34	58.42	62.48	70.49	77.09	59.44
24/48*	2.300	2.500	2.660	2.975	3.235	2.540	58.42	63.50	67.56	75.57	82.17	64.52
25/50*	2.400	2.600	2.760	3.075	3.335	2.640	60.96	66.04	70.10	78.11	84.71	67.06
28/56*	2.700	2.900	3.060	3.375	3.635	2.940	68.58	73.66	77.72	85.73	92.33	74.68
30/60	2.900	3.100	3.260	3.575	3.835	3.140	73.66	78.74	82.80	90.81	97.41	79.76
31/62*	3.000	3.200	3.360	3.675	3.935	3.240	76.20	81.28	85.34	93.35	99.95	82.30
35/70*	3.400	3.600	3.760	4.075	4.335	3.640	86.36	91.44	95.50	103.51	110.11	92.46
36/72*	3.500	3.700	3.860	4.175	4.435	3.740	88.90	93.98	98.04	106.05	112.65	95.00
40/80	3.900	4.100	4.260	4.575	4.835	4.140	99.06	104.14	108.20	116.21	122.81	105.16
43/86	4.200	4.400	4.560	4.875	5.135	4.440	106.68	111.76	115.82	123.83	130.43	112.78
44/88	4.300	4.500	4.660	4.975	5.235	4.540	109.22	114.30	118.36	126.37	132.97	115.32
49/98*	4.800	5.000	5.160	5.475	5.735	5.040	121.92	127.00	131.06	139.07	145.67	128.02
50/100	4.900	5.100	5.260	5.575	5.835	5.140	124.46	129.54	133.60	141.61	148.21	130.56
55/110*	5.400	5.600	5.760	6.075	6.335	5.640	137.16	142.24	146.30	154.31	160.91	143.26
60/120*	5.900	6.100	6.260	6.575	6.835	6.140	149.86	154.94	159.00	167.01	173.61	155.96
61/122*	6.000	6.200	6.360	6.675	6.935	6.240	152.40	157.48	161.54	169.55	176.15	158.50
65/130*	6.400	6.600	6.760	7.075	7.335	6.640	162.56	167.64	171.70	179.71	186.31	168.66
70/140*	6.900	7.100	7.260	7.575	7.835	7.140	175.26	180.34	184.40	192.41	199.01	181.36

* Consult factory for availability.

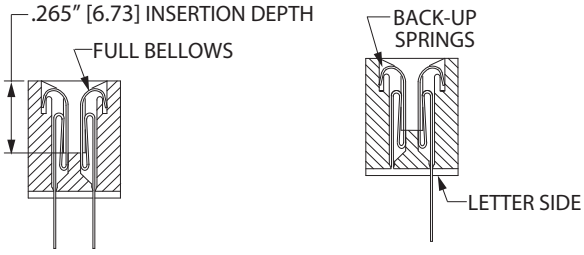
.125" [3.18 mm] Contact Centers, .431" [10.95 mm] Insulator Height, Dip Solder/Eyelet/Right Angle for .062" [1.57 mm] or .031" [0.79 mm] Mating PCB

SPECIFICATIONS

- Accommodates .062" ± .008" [1.57 mm ± 0.20 mm] PC board or .031" ± .006" [0.79 mm ± 0.15 mm] PC board
- Molded-in key available
- 3 Amps current rating for one contact energized
- 30 milli Ohms maximum at rated current
- UL Flammability Rating: 94V-0



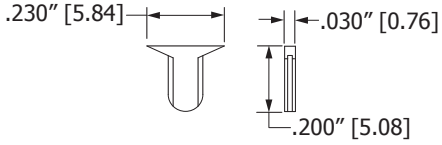
READOUT



DUAL (D) **HALF LOADED (H)**

POLARIZING KEY

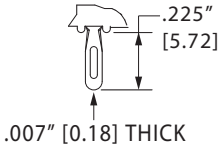
PLA-K1
KEY IN BETWEEN CONTACTS
(ORDER SEPARATELY)



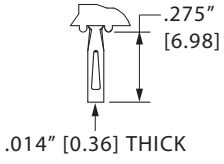
CONSULT FACTORY FOR MOLDED-IN KEY

TERMINATION TYPE

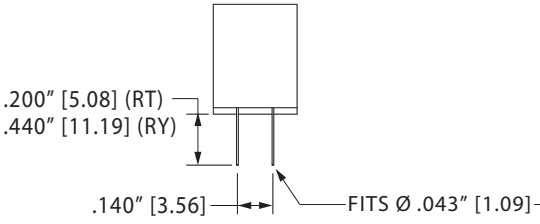
EYELET ACCEPTS 3-#26 AWG



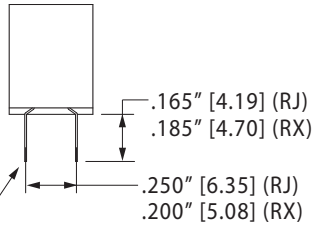
EYELET (RE)



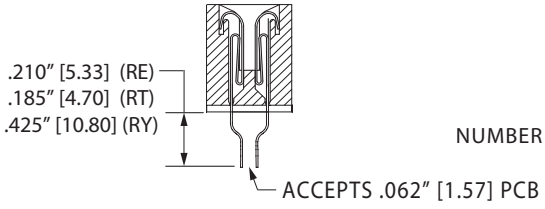
EYELET (TE)



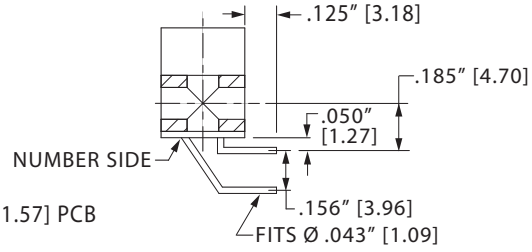
NARROW DIP SOLDER (RT, RY)



WIDE DIP SOLDER (RJ, RX)

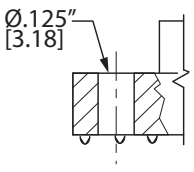


CARD EXTENDER
REQUIRES -S13 MODIFICATION CODE
(RE,RT,RY TERMINATIONS ONLY)

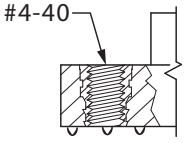


RIGHT ANGLE (RA)

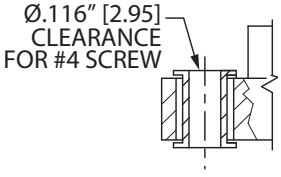
MOUNTING STYLE



CLEARANCE HOLE (H)

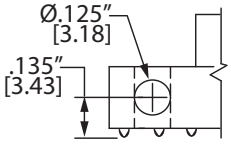


THREADED INSERT(I)



FLOATING BOBBIN (F)

NO MOUNTING EARS (N)



SIDE MOUNTING (S)

.125" [3.18 mm] Contact Centers, .431" [10.95 mm] Insulator Height, Dip Solder/Eyelet/Right Angle for .062" [1.57 mm] or .031" [0.79 mm] Mating PCB

PART NUMBER OPTIONS

E B A 43 D RE H - Sxxx

MATERIALS (INSULATOR/CONTACT)
- E = PBT/Phosphor Bronze (Standard)
- R = PPS/Phosphor Bronze
- G = PA9T/Phosphor Bronze
- H = PBT/Beryllium Copper
- A = PPS/Beryllium Copper
- J = PA9T/Beryllium Copper
- *F = PPS/Spinodal (Overall Gold Plating Only)
  Consult factory for special soldering guidelines.
- *C = PPS/Beryllium Nickel (Overall Gold Plating Only)
- *W = PEEK/Beryllium Nickel (Overall Gold Plating Only)
- *Consult factory for availability.
  Refer to Page 7 for Operating/Processing Temperatures

CONTACT FINISH - RoHS Compliant
All platings are Lead Free and have .000050" Nickel underplate

	Contact Surface	Termination
B =	.000010" Gold	.000100" Pure Tin, Matte
C =	.000030" Gold	.000100" Pure Tin, Matte
G =	.000010" Gold	.000005" Gold
Y =	.000030" Gold	.000005" Gold
	Contact Surface	**Overall Plating**
S =	.000010" Gold	.000010" Gold
M =	.000030" Gold	.000010" Gold
E =	.000100" Pure Tin, Matte	.000100" Pure Tin, Matte

CONTACT CENTERS
- A = .125" [3.18 mm]

MODIFICATION CODE (Consult Factory)
OMIT FOR STANDARD
- -S13 = Card Extender Accepts .062" [1.57 mm] PCB (RE, RT, RY Terminations Only)
- -S734 = .031" ± .006" [0.79 mm ± 0.15 mm] Thick PCB

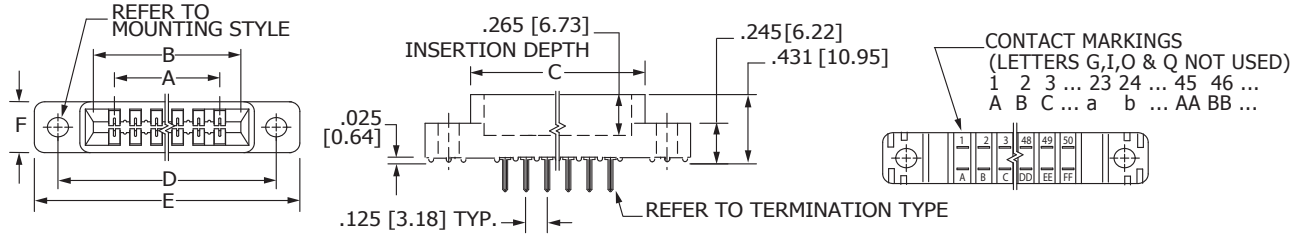
MOUNTING STYLE (Opposite Page)
- H = .125" [3.18 mm] Clearance Holes
- N = No Mounting
- S = Side Mounting
- I = Threaded Insert
- F = Floating Bobbin

TERMINATION TYPE (Opposite Page)
- RA = Right Angle
- RE = Eyelet (Standard)
- TE = Eyelet (Overall Plated Only)
- RT = .140" [3.56 mm] X .200" [5.08 mm] Dip Solder
- RY = .140" [3.56 mm] X .440" [11.19 mm] Dip Solder
- RX = .200" [5.08 mm] X .185" [4.70 mm] Dip Solder
- RJ = .250" [6.35 mm] X .165" [4.19 mm] Dip Solder

READOUT (Opposite Page)
- D = Dual
- H = Half Loaded

NUMBER OF CONTACT POSITIONS
See Chart Below

DIMENSIONS
Dimensions in [ ] are in millimeters, all others are in inches.



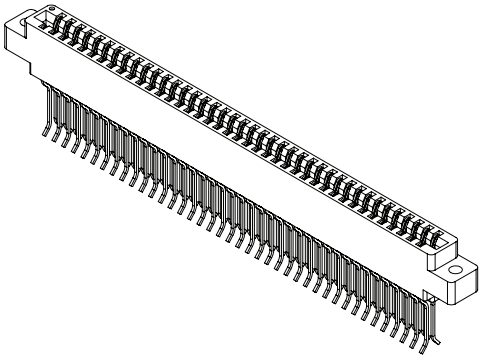
Tolerances on non-critical dimensions may very slightly due to shrinkage differential per insulator material; Consult factory.

POSITIONS/ CONTACTS	INCHES						MILLIMETERS					
	A±.008	B±.008	C±.015	D±.010	E±.020	F+.005/-.015	A±0.20	B±0.20	C±0.38	D±0.25	E±0.51	F+0.13/-0.38
06/12	0.625	0.875	1.035	1.295	1.575	0.330	15.88	22.23	26.29	32.89	40.01	8.38
10/20	1.125	1.375	1.535	1.795	2.075		28.58	34.93	38.99	45.59	52.71	
14/28	1.625	1.875	2.035	2.295	2.575		41.28	47.63	51.69	58.29	65.41	
15/30	1.750	2.000	2.160	2.420	2.700		44.45	50.80	54.86	61.47	68.58	
18/36	2.125	2.375	2.535	2.795	3.075		53.98	60.33	64.39	70.99	78.11	
22/44	2.625	2.875	3.035	3.295	3.575		66.68	73.03	77.09	83.69	90.81	
28/56	3.375	3.625	3.785	4.045	4.325		85.73	92.08	96.14	102.74	109.86	
30/60	3.625	3.875	4.035	4.295	4.575		92.08	98.43	102.49	109.09	116.21	
31/62	3.750	4.000	4.160	4.420	4.700		95.25	101.60	105.66	112.27	119.38	
35/70	4.250	4.500	4.660	4.920	5.200		107.95	114.30	118.36	124.97	132.08	
36/72	4.375	4.625	4.785	5.045	5.325		111.13	117.48	121.54	128.14	135.26	
37/74	4.500	4.750	4.910	5.170	5.450		114.30	120.65	124.71	131.32	138.43	
40/80	4.875	5.125	5.285	5.545	5.825	0.370	123.83	130.18	134.24	140.84	147.96	9.40
43/86	5.250	5.500	5.660	5.920	6.200		133.35	139.70	143.76	150.37	157.48	
44/88	5.375	5.625	5.785	6.045	6.325		136.53	142.88	146.94	153.54	160.66	
49/98	6.000	6.250	6.410	6.670	6.950		152.40	158.75	162.81	169.42	176.53	
50/100	6.125	6.375	6.535	6.795	7.075		155.58	161.93	165.99	172.59	179.71	

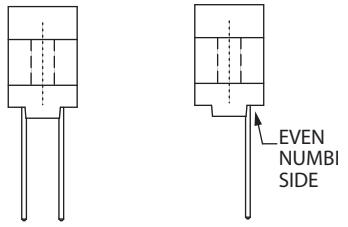
.125" [3.18 mm] Contact Centers, .610" [15.49 mm] Insulator Height, Dip Solder/Wire Wrap/Right Angle

SPECIFICATIONS

- Accommodates .062" ± .008" [1.57 mm ± 0.20 mm] PC board (See following pages for .093" ± .008" [2.36 mm ± 0.20 mm] and .125" ± .008" [3.18 mm ± 0.20 mm] mating PCB)
- PBT, PPS or PA9T insulator
- Molded-in key available
- 3 Amps current rating for one contact energized
- 30 milli Ohms maximum at rated current
- UL Flammability Rating: 94V-0



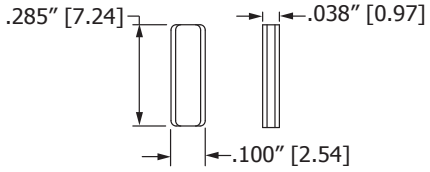
READOUT



DUAL (D) HALF LOADED (H)

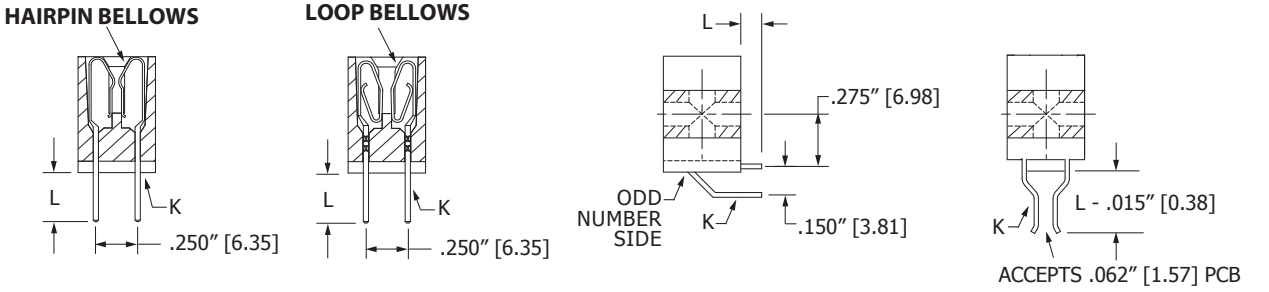
POLARIZING KEY

PLC-K1



KEY IN BETWEEN CONTACTS (ORDER SEPARATELY)

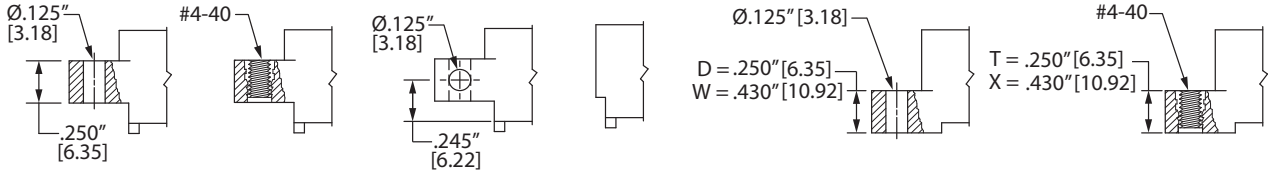
TERMINATION TYPE



HAIRPIN BELLOWS (CS,CM,CW,CT) **LOOP BELLOWS (TK,RS,RM,CK)** **RIGHT ANGLE, DIP SOLDER (CA,CB,CC,TA,TB,TM)** **CARD EXTENDER REQUIRES -S288 MODIFICATION CODE (CS,CM,CT,RS,CK,TK,RM)**

HAIRPIN BELLOWS	LOOP BELLOWS	TERMINATION TYPE	POST CROSS SECTION K	POST LENGTH L ± .025"[0.64]	FITS MIN. HOLE SIZE
	TK, CK	DIP SOLDER	.025" [0.64] ROUND	.190" [4.83]	.033" [0.84]
	RS	DIP SOLDER	.025" [0.64] SQUARE	.190" [4.83]	.040" [1.02]
CM	RM	WIRE WRAP	.025" [0.64] SQUARE	.560" [14.20]	.040" [1.02]
CA	TA	RIGHT ANGLE	.025" [0.64] SQUARE	.100" [2.54]	.043" [1.09]
CB	TB	RIGHT ANGLE	.025" [0.64] SQUARE	.180" [4.57]	.043" [1.09]
CC	TM	RIGHT ANGLE	.025" [0.64] SQUARE	.250" [6.35]	.043" [1.09]
CW		DIP SOLDER	.015" X .025" [0.38 X 0.64]	.125" [3.18]	.035" [0.89]
CT		DIP SOLDER	.015" X .025" [0.38 X 0.64]	.170" [4.32]	.035" [0.89]
CS		DIP SOLDER	.025" [0.64] SQUARE	.160" [4.06]	.040" [1.02]

MOUNTING STYLE



CLEARANCE HOLE (H) **THREADED INSERT (I)** **SIDE MOUNTING (S)** **NO MOUNTING EARS (N)** **FLUSH MOUNTING (D, W)** **FLUSH MOUNTING WITH THREADED INSERT (T, X)**

.125" [3.18 mm] Contact Centers, .610" [15.49 mm] Insulator Height, Dip Solder/Wire Wrap/Right Angle

PART NUMBER OPTIONS

E B A 50 D CM H - Sxxx

MATERIALS (INSULATOR/CONTACT)
E = PBT/Phosphor Bronze (Standard)
R = PPS/Phosphor Bronze
G = PA9T/Phosphor Bronze
H = PBT/ Beryllium Copper
A = PPS/Beryllium Copper
J = PA9T/Beryllium Copper
(Consult factory for other materials.)
Refer to Page 7 for Operating/Processing Temperatures

CONTACT FINISH - RoHS Compliant
All platings are Lead Free and have .000050" Nickel underplate

	Contact Surface	Termination
B =	.000010" Gold	.000100" Pure Tin, Matte
C =	.000030" Gold	.000100" Pure Tin, Matte
G =	.000010" Gold	.000005" Gold
Y =	.000030" Gold	.000005" Gold

	Contact Surface	Overall Plating
S =	.000010" Gold	.000010" Gold
M =	.000030" Gold	.000010" Gold
E =	.000100" Pure Tin, Matte	.000100" Pure Tin, Matte

CONTACT CENTERS
A = .125" [3.18 mm]

NUMBER OF CONTACT POSITIONS
See Chart Below

READOUT (Opposite Page)
D = Dual
H = Half Loaded

MODIFICATION CODE (Consult Factory)
OMIT FOR STANDARD
-S288 = Card Extender Accepts .062" [1.57 mm] PCB

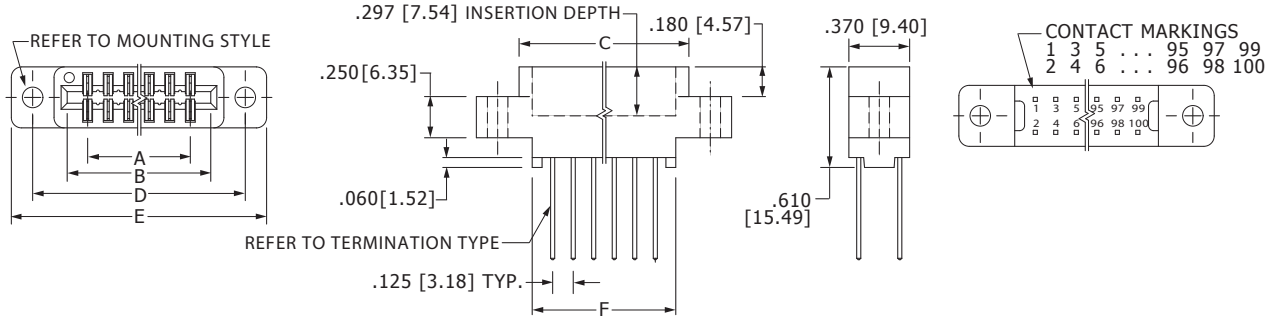
MOUNTING STYLE (Opposite Page)
H = Clearance Holes
I = Threaded Inserts
S = Side Mounting
N = No Mounting
W = Flush Mounting
D = Flush Mounting
X = Flush Mounting with Threaded Inserts
T = Flush Mounting with Threaded Inserts

TERMINATION TYPE (Opposite Page)

Hairpin Bellows **
*****Available with B or C plating and Phosphor Bronze Only***
CS = .025" [0.64 mm] Square Dip Solder
CM = .025" [0.64 mm] Square Wire Wrap
CA, CB, CC = .025" [0.64 mm] Square Right Angle
CW, CT = .015" X .025" [0.38 mm X 0.64 mm] Dip Solder

Loop Bellows
RS = .025" [0.64 mm] Square Dip Solder
CK, TK = .025" [0.64 mm] Round Dip Solder
RM = .025" [0.64 mm] Square Wire Wrap
TA, TB, TM = .025" [0.64 mm] Square Right Angle

DIMENSIONS Dimensions in [ ] are in millimeters, all others are in inches.



Tolerances on non-critical dimensions may very slightly due to shrinkage differential per insulator material; Consult factory.

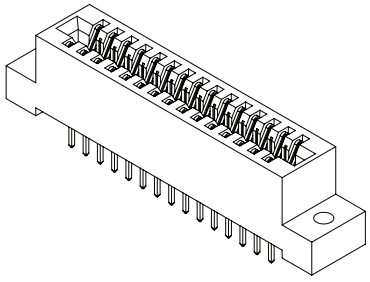
POSITIONS/ CONTACTS	INCHES						MILLIMETERS					
	A±.008	B±.008	C±.015	D±.010	E±.020	F±.015	A±0.20	B±0.20	C±0.38	D±0.25	E±0.51	F±0.38
06/12	0.625	0.875	1.035	1.295	1.555	0.875	15.88	22.23	26.29	32.89	39.50	22.23
10/20	1.125	1.375	1.535	1.795	2.055	1.375	28.58	34.93	38.99	45.59	52.20	34.93
14/28	1.625	1.875	2.035	2.295	2.555	1.875	41.28	47.63	51.69	58.29	64.90	47.63
15/30	1.750	2.000	2.160	2.420	2.680	2.000	44.45	50.80	54.86	61.47	68.07	50.80
18/36	2.125	2.375	2.535	2.795	3.055	2.375	53.98	60.33	64.39	70.99	77.60	60.33
22/44	2.625	2.875	3.035	3.295	3.555	2.875	66.68	73.03	77.09	83.69	90.30	73.03
24/48	2.875	3.125	3.285	3.545	3.805	3.125	73.03	79.38	83.44	90.04	96.65	79.38
25/50*	3.000	3.250	3.410	3.670	3.930	3.250	76.20	82.55	86.61	93.22	99.82	82.55
28/56	3.375	3.625	3.785	4.045	4.305	3.625	85.73	92.08	96.14	102.74	109.35	92.08
30/60	3.625	3.875	4.035	4.295	4.555	3.875	92.08	98.43	102.49	109.09	115.70	98.43
31/62	3.750	4.000	4.160	4.420	4.680	4.000	95.25	101.60	105.66	112.27	118.87	101.60
32/64	3.875	4.125	4.285	4.545	4.805	4.125	98.43	104.78	108.84	115.44	122.05	104.78
35/70	4.250	4.500	4.660	4.920	5.180	4.500	107.95	114.30	118.36	124.97	131.57	114.30
36/72	4.375	4.625	4.785	5.045	5.305	4.625	111.13	117.48	121.54	128.14	134.75	117.48
40/80	4.875	5.125	5.285	5.545	5.805	5.125	123.83	130.18	134.24	140.84	147.45	130.18
43/86	5.250	5.500	5.660	5.920	6.180	5.500	133.35	139.70	143.76	150.37	156.97	139.70
44/88	5.375	5.625	5.785	6.045	6.305	5.625	136.53	142.88	146.94	153.54	160.15	142.88
49/98	6.000	6.250	6.410	6.670	6.930	6.250	152.40	158.75	162.81	169.42	176.02	158.75
50/100	6.125	6.375	6.535	6.795	7.055	6.375	155.58	161.93	165.99	172.59	179.20	161.93

* Consult factory for availability.

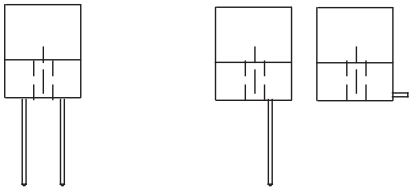
.125" [3.18 mm] Contact Centers, .610" [15.49 mm] Insulator Height, Dip Solder/Wire Wrap/Right Angle for .093" [2.36 mm] or .125" [3.18 mm] Mating PCB

SPECIFICATIONS

- Accommodates .093" ± .008" [2.36 mm 0.20 mm] PC board or .125" ± .008" [3.18 mm ± 0.20 mm] mating PCB
- PBT, PPS or PA9T insulator
- Molded-in key available
- 3 Amps current rating for one contact energized
- 30 milli Ohms maximum at rated current
- UL Flammability Rating: 94V-0

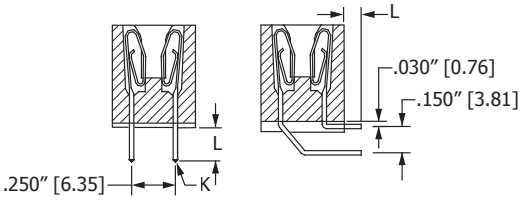


READOUT



DUAL (D) HALF LOADED (H)

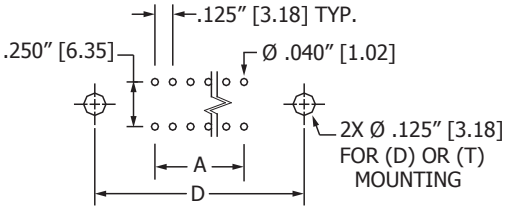
TERMINATION TYPE



LOOP BELLOWS (RS, RM) RIGHT ANGLE DIP SOLDER (TA, TB, TM)

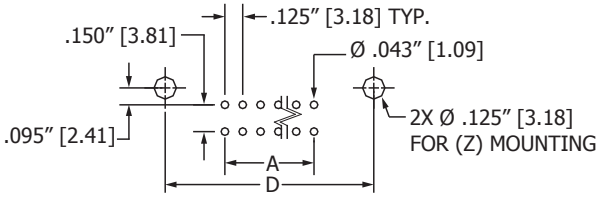
TERMINATION TYPE	POST CROSS SECTION (K)	POST LENGTH L ± .025" [0.64]	FITS MIN. HOLE SIZE
RS DIP SOLDER	.025" [0.64] SQ.	.190" [4.83]	.040" [1.02]
RM WIRE WRAP	.025" [0.64] SQ.	.560" [14.20]	.040" [1.02]
TA RIGHT ANGLE	.025" [0.64] SQ.	.100" [2.54]	.043" [1.09]
TB RIGHT ANGLE	.025" [0.64] SQ.	.180" [4.57]	.043" [1.09]
TM RIGHT ANGLE	.025" [0.64] SQ.	.250" [6.35]	.043" [1.09]

PCB LAYOUT



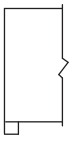
STRAIGHT PIN TERMINATIONS (RS, RM)

COMPONENT SIDE

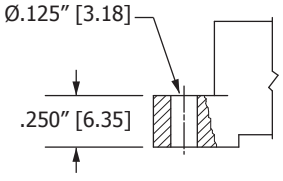


RIGHT ANGLE TERMINATIONS (TA, TB, TM)

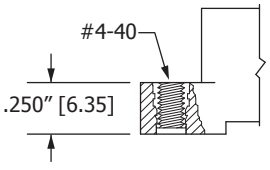
MOUNTING STYLE



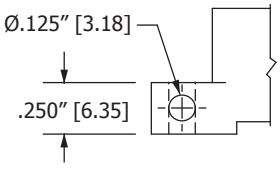
NO MOUNTING EARS (N)



FLUSH MOUNTING (D)



FLUSH MOUNTING WITH THREADED INSERT (T)



FLUSH MOUNTING WITH SIDE HOLES (Z)

.125" [3.18 mm] Contact Centers, .610" [15.49 mm] Insulator Height, Dip Solder/Wire Wrap/Right Angle for .093" [2.36 mm] or .125" [3.18 mm] Mating PCB

PART NUMBER OPTIONS

E B A 50 D RM D - S273

MATERIALS (INSULATOR/CONTACT)
E = PBT/Phosphor Bronze(Standard)
R = PPS/Phosphor Bronze
G = PA9T/Phosphor Bronze
H = PBT & Beryllium Copper
A = PPS & Beryllium Copper
J = PA9T & Beryllium Copper
(Consult factory for other materials.)
Refer to Page 7 for Operating/Processing Temperatures

CONTACT FINISH - RoHS Compliant
All platings are Lead Free and have .000050" Nickel underplate

	Contact Surface	Termination
B =	.000010" Gold	.000100" Pure Tin, Matte
C =	.000030" Gold	.000100" Pure Tin, Matte
G =	.000010" Gold	.000005" Gold
Y =	.000030" Gold	.000005" Gold
	Contact Surface	**Overall Plating**
S =	.000010" Gold	.000010" Gold
M =	.000030" Gold	.000010" Gold
E =	.000100" Pure Tin, Matte	.000100" Pure Tin, Matte

CONTACT CENTERS
A = .125" [3.18 mm]

MODIFICATION CODE (Consult Factory)
-S273 = FOR .093" ± .008" [2.36 mm ± 0.20 mm] THICK MATING PCB
-S664 = FOR .125" ± .008" [3.18 mm ± 0.20 mm] THICK MATING PCB

MOUNTING STYLE (Opposite Page)
N = No Mounting
D = Flush Mounting
T = Flush Mounting With Threaded Inserts
Z = Flush Mounting With Side Holes

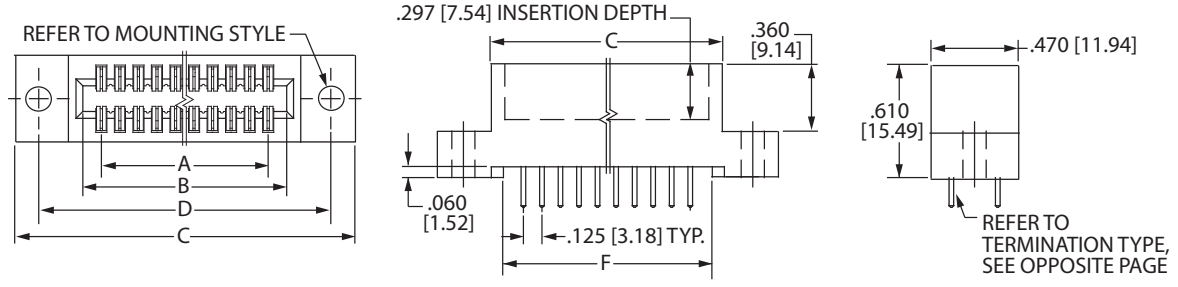
TERMINATION TYPE (Opposite Page)
RS = .025" [0.64 mm] Square Dip Solder
RM = .025" [0.64 mm] Square Wire Wrap
TA, TB, TM = .025" [0.64 mm] Square Right Angle

READOUT (Opposite Page)
D = Dual
H = Half Loaded

NUMBER OF CONTACT POSITIONS
See Chart Below

DIMENSIONS

Dimensions in [ ] are in millimeters, all others are in inches.



Tolerances on non-critical dimensions may very slightly due to shrinkage differential per insulator material; Consult factory.

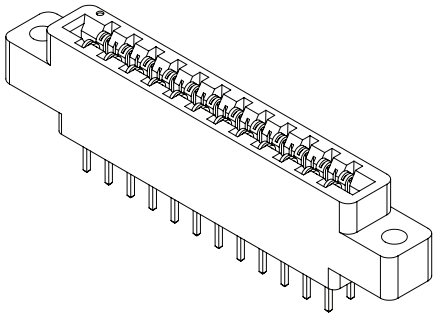
POSITIONS/ CONTACTS	INCHES						MILLIMETERS					
	A±.008	B±.008	C±.015	D±.010	E±.020	F±.015	A±0.20	B±0.20	C±0.38	D±0.25	E±0.51	F±0.38
06/12*	0.625	0.875	1.035	1.295	1.555	0.915	15.88	22.23	26.29	32.89	39.50	23.24
08/16*	0.875	1.125	1.285	1.545	1.805	1.165	22.23	28.58	32.64	39.24	45.85	29.59
10/20*	1.125	1.375	1.535	1.795	2.055	1.415	28.58	34.93	38.99	45.59	52.20	35.94
14/28*	1.625	1.875	2.035	2.295	2.555	1.915	41.28	47.63	51.69	58.29	64.90	48.64
15/30*	1.750	2.000	2.160	2.420	2.680	2.040	44.45	50.80	54.86	61.47	68.07	51.82
18/36*	2.125	2.375	2.535	2.795	3.055	2.415	53.98	60.33	64.39	70.99	77.60	61.34
22/44*	2.625	2.875	3.035	3.295	3.555	2.915	66.68	73.03	77.09	83.69	90.30	74.04
24/48*	2.875	3.125	3.285	3.545	3.805	3.165	73.03	79.38	83.44	90.04	96.65	80.39
25/50	3.000	3.250	3.410	3.670	3.930	3.290	76.20	82.55	86.61	93.22	99.82	83.57
28/56*	3.375	3.625	3.785	4.045	4.305	3.665	85.73	92.08	96.14	102.74	109.35	93.09
30/60	3.625	3.875	4.035	4.295	4.555	3.915	92.08	98.43	102.49	109.09	115.70	99.44
31/62*	3.750	4.000	4.160	4.420	4.680	4.040	95.25	101.60	105.66	112.27	118.87	102.62
32/64	3.875	4.125	4.285	4.545	4.805	4.165	98.43	104.78	108.84	115.44	122.05	105.79
35/70*	4.250	4.500	4.660	4.920	5.180	4.540	107.95	114.30	118.36	124.97	131.57	115.32
36/72	4.375	4.625	4.785	5.045	5.305	4.665	111.13	117.48	121.54	128.14	134.75	118.49
40/80*	4.875	5.125	5.285	5.545	5.805	5.165	123.83	130.18	134.24	140.84	147.45	131.19
43/86*	5.250	5.500	5.660	5.920	6.180	5.540	133.35	139.70	143.76	150.37	156.97	140.72
44/88*	5.375	5.625	5.785	6.045	6.305	5.665	136.53	142.88	146.94	153.54	160.15	143.89
49/98*	6.000	6.250	6.410	6.670	6.930	6.290	152.40	158.75	162.81	169.42	176.02	159.77
50/100	6.125	6.375	6.535	6.795	7.055	6.415	155.58	161.93	165.99	172.59	179.20	162.94

* Consult factory for availability.

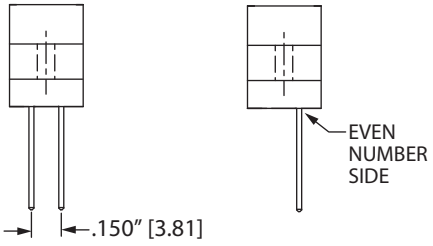
.150" [3.81 mm] Contact Centers, .550" [13.97 mm] Insulator Height, Dip Solder/Wire Wrap

SPECIFICATIONS

- Accommodates .062" ± .008" [1.57 mm ± 0.20 mm] PC board
- PBT, PPS or PA9T insulator
- Molded-in key available
- 3 Amps current rating for one contact energized
- 30 milli Ohms maximum at rated current
- UL Flammability Rating: 94V-0



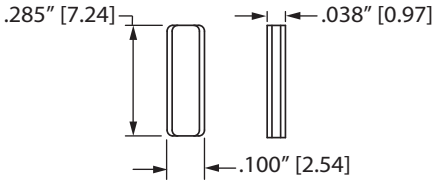
READOUT



DUAL (D) HALF LOADED (H)

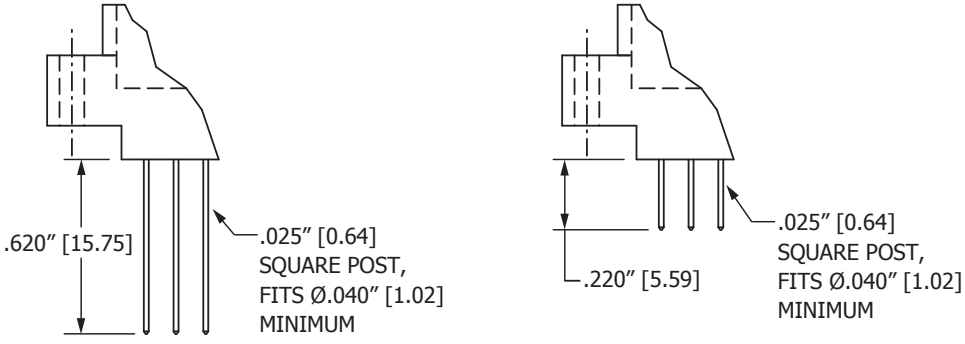
POLARIZING KEY

PLC-K1



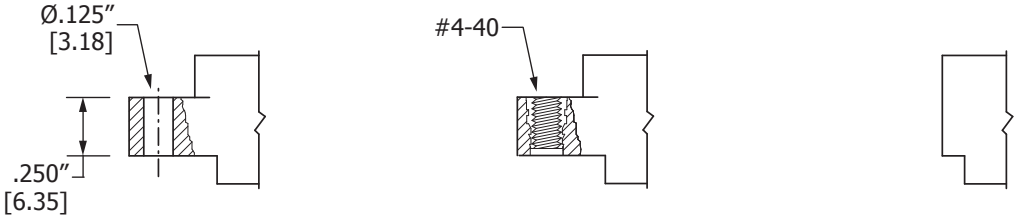
KEY IN BETWEEN CONTACTS (ORDER SEPARATELY)

TERMINATION TYPE



WIRE WRAP (MC) DIP SOLDER (SC)

MOUNTING STYLE



CLEARANCE HOLE (H) THREADED INSERT (I) NO MOUNTING EARS (N)

.150" [3.81 mm] Contact Centers, .550" [13.97 mm] Insulator Height, Dip Solder/Wire Wrap

PART NUMBER OPTIONS

E B J 26 D MC H - Sxxx

MATERIALS (INSULATOR/CONTACT)
E = PBT/Phosphor Bronze (Standard)
R = PPS/Phosphor Bronze
G = PA9T/Phosphor Bronze
(Consult factory for other materials.)
Refer to Page 7 for Operating/Processing Temperatures

CONTACT FINISH - RoHS Compliant
All platings are Lead Free and have .000050" Nickel underplate

	Contact Surface	Termination
B =	.000010" Gold	.000100" Pure Tin, Matte
C =	.000030" Gold	.000100" Pure Tin, Matte

CONTACT CENTERS
J = .150" [3.81 mm]

NUMBER OF CONTACT POSITIONS
See Chart Below

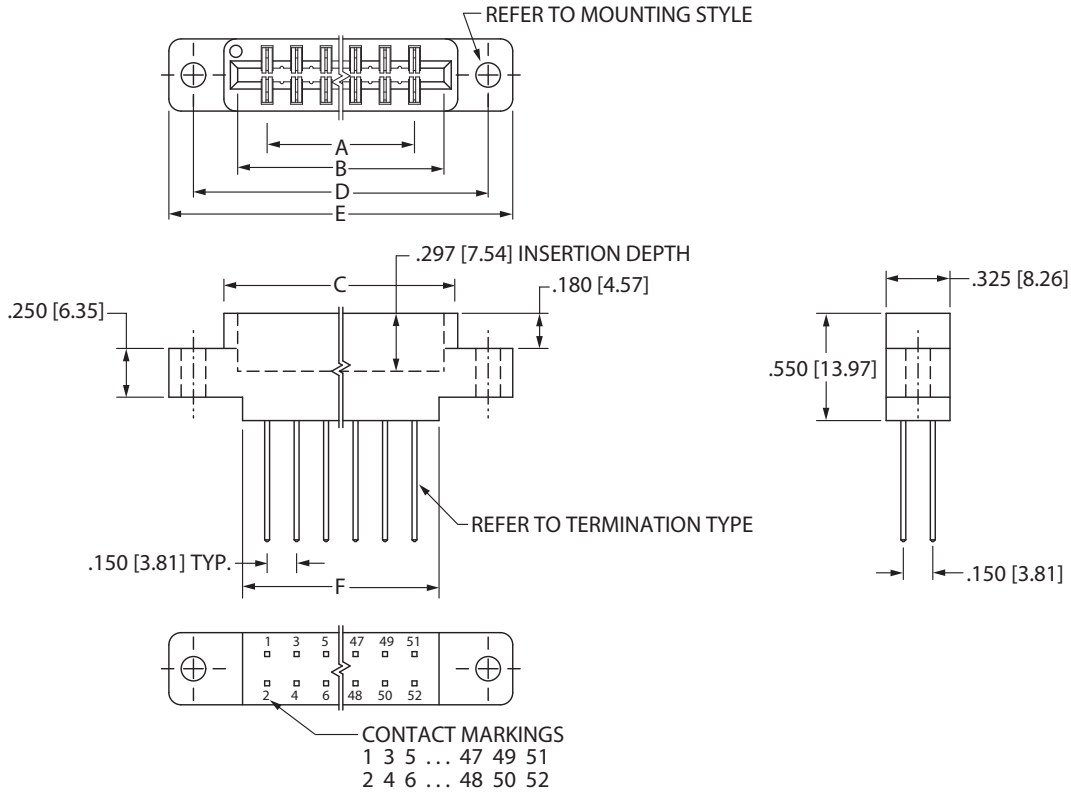
MODIFICATION CODE (Consult Factory)
OMIT FOR STANDARD

MOUNTING STYLE (Opposite Page)
H = Clearance Holes
I = Threaded Inserts
N = No Mounting

TERMINATION TYPE (Opposite Page)
Hairpin Bellows
MC = .025" [0.64 mm] Square Wire Wrap
SC = .025" [0.64 mm] Square Dip Solder

READOUT (Opposite Page)
D = Dual
H = Half Loaded

DIMENSIONS
Dimensions in [ ] are in millimeters, all others are in inches.



Tolerances on non-critical dimensions may very slightly due to shrinkage differential per insulator material; Consult factory.

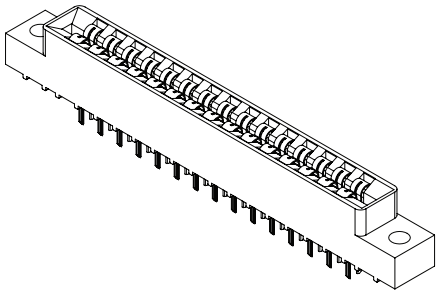
POSITIONS/ CONTACTS	INCHES						MILLIMETERS					
	A±.008	B±.008	C±.015	D±.010	E±.020	F±.015	A±0.20	B±0.20	C±0.38	D±0.25	E±0.51	F±0.38
12/24	1.650	1.950	2.090	2.400	2.650	1.900	41.91	49.53	53.09	60.96	67.31	48.26
18/36*	2.550	2.850	2.990	3.300	3.550	2.800	64.77	72.39	75.95	83.82	90.17	71.12
22/44*	3.150	3.450	3.590	3.900	4.150	3.400	80.01	87.63	91.19	99.06	105.41	86.36
26/52	3.750	4.050	4.190	4.500	4.750	4.000	95.25	102.87	106.43	114.30	120.65	101.60
28/56*	4.050	4.350	4.490	4.800	5.050	4.300	102.87	110.49	114.05	121.92	128.27	109.22

* Consult factory for availability.

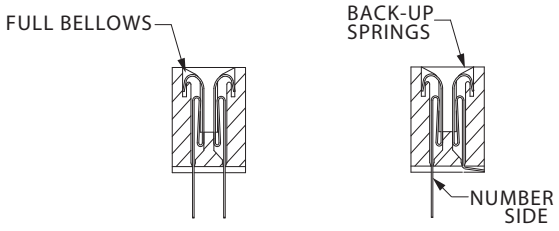
.156" [3.96 mm] Contact Centers, .431" [10.95 mm] Insulator Height, Dip Solder/Eyelet/Right Angle

SPECIFICATIONS

- Accommodates .062" ± .008" [1.57 mm ± 0.20 mm] PC board
- Molded-in key available
- 3 Amps current rating for one contact energized (for 5 Amps application, consult factory)
- 30 milli Ohms maximum at rated current
- UL Flammability Rating: 94V-0



READOUT

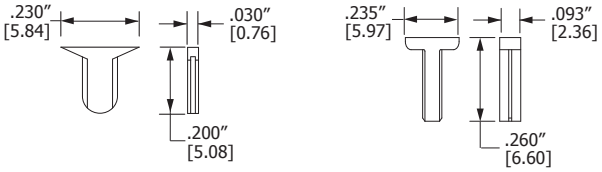


DUAL (D) HALF LOADED (H)

POLARIZING KEY

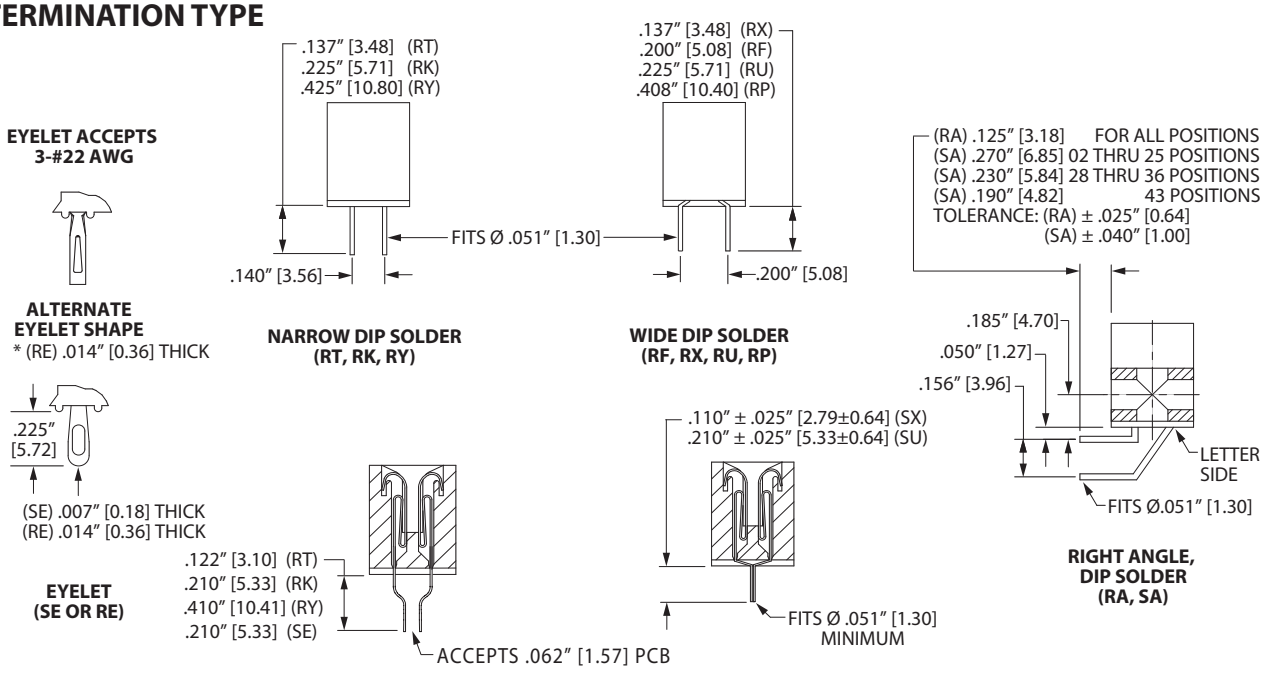
PLA-K1
KEY IN BETWEEN CONTACTS
(ORDER SEPARATELY)

PLM-K2
KEY IN CONTACT
(ORDER SEPARATELY)

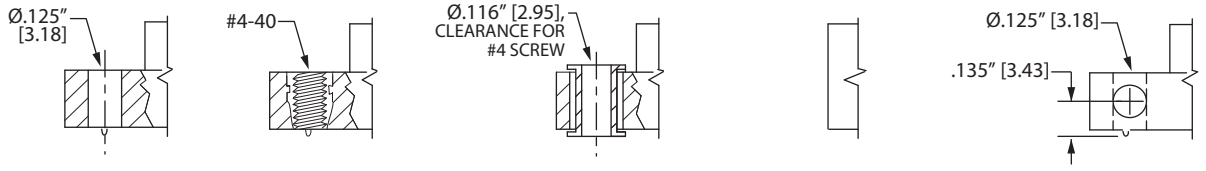


CONSULT FACTORY FOR MOLDED-IN KEY

TERMINATION TYPE



MOUNTING STYLE



CLEARANCE HOLE (H) | THREADED INSERT (I) | FLOATING BOBBIN (F) | NO MOUNTING EARS (N) | SIDE MOUNTING (S)

* Beryllium Copper & Beryllium Nickel (H, A, J, F, C & W Material Codes) Only.

.156" [3.96 mm] Contact Centers, .431" [10.95 mm] Insulator Height, Dip Solder/Eyelet/Right Angle

PART NUMBER OPTIONS

E B M 43 D RK H - Sxxx

MATERIALS (INSULATOR/CONTACT)
- E = PBT/Phosphor Bronze (Standard)
- R = PPS/Phosphor Bronze
- G = PA9T/Phosphor Bronze
- H = PBT/Beryllium Copper
- A = PPS/Beryllium Copper
- J = PA9T/Beryllium Copper
- *F = PPS/Spinodal (Overall Gold Plating Only) Consult Factory for Special Soldering Guidelines
- *C = PPS/Beryllium Nickel (Overall Gold Plating Only)
- *W = PEEK/Beryllium Nickel (Overall Gold Plating Only)

*Consult factory for availability.
Refer to Page 7 for Operating/Processing Temperatures

CONTACT FINISH - RoHS Compliant
All platings are Lead Free and have .000050" Nickel underplate

	Contact Surface	Termination
B =	.000010" Gold	.000100" Pure Tin, Matte
C =	.000030" Gold	.000100" Pure Tin, Matte
G =	.000010" Gold	.000005" Gold
Y =	.000030" Gold	.000005" Gold

	Contact Surface	Overall Plating
S =	.000010" Gold	.000010" Gold
M =	.000030" Gold	.000010" Gold
E =	.000100" Pure Tin, Matte	.000100" Pure Tin, Matte

CONTACT CENTERS
M = .156" [3.96 mm]

NUMBER OF CONTACT POSITIONS
See Chart Below

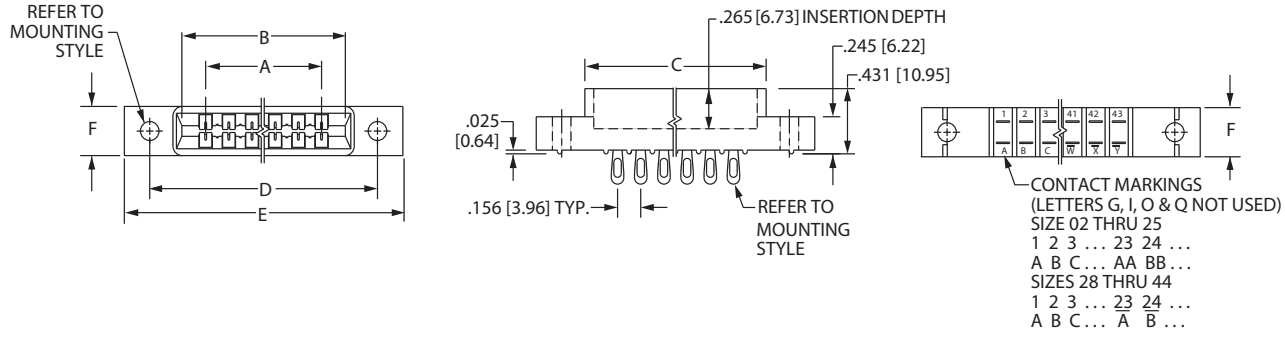
MODIFICATION CODE (Consult Factory)
OMIT FOR STANDARD
- -S13 = Card Extender Accepts .062" [1.57 mm] PCB (RT, RK, RY, SE Terminations Only)

MOUNTING STYLE (Opposite Page)
- H = .125" [3.18 mm] Clearance Holes
- N = No Mounting
- S = Side Mounting
- I = Threaded Insert
- F = Floating Bobbin

TERMINATION TYPE (Opposite Page)
- RA = .125" [3.18 mm] Right Angle Dip Solder
- SA = Long Right Angle Dip Solder
- RT = .140" X .137" [3.56 mm X 3.48 mm] Dip Solder
- RK = .140" X .225" [3.56 mm X 5.72 mm] Dip Solder
- RY = .140" X .425" [3.56 mm X 10.80 mm] Dip Solder
- RX = .200" X .137" [5.08 mm X 3.48 mm] Dip Solder
- RF = .200" X .200" [5.08 mm X 5.08 mm] Dip Solder
- RU = .200" X .225" [5.08 mm X 5.72 mm] Dip Solder
- RP = .200" X .408" [5.08 mm X 10.36 mm] Dip Solder
- SX = .110" [2.79 mm] Centered Dip Solder
- SU = .210" [5.33 mm] Centered Dip Solder
- SE = .007" [0.18 mm] Thick Eyelet
- RE = .014" [0.36 mm] Thick Eyelet

READOUT (Opposite Page)
- D = Dual
- D = Dual Row/ Crimp to Center for Single Readout (SX, SU Termination Only)
- H = Half Loaded

DIMENSIONS
Dimensions in [ ] are in millimeters, all others are in inches.



Tolerances on non-critical dimensions may very slightly due to shrinkage differential per insulator material; Consult factory.

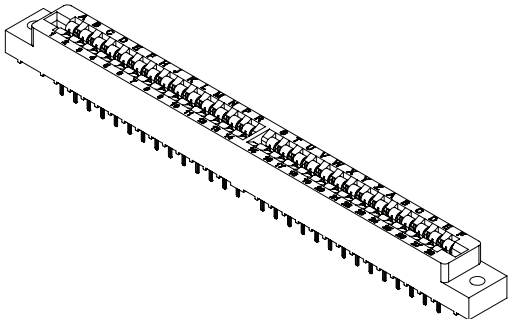
POSITIONS/ CONTACTS	INCHES						MILLIMETERS					
	A±.008	B±.008	C±.015	D±.010	E MAX	F+.005/-.015	A±0.20	B±0.20	C±0.38	D±0.25	E MAX	F+0.13/-0.38
02/04	0.156	0.476	0.596	'N' MOUNTING		0.325	3.96	12.09	15.14	'N' MOUNTING		8.26
03/06	0.312	0.632	0.752				7.92	16.05	19.10			
04/08*	0.468	0.788	0.908				11.89	20.02	23.06			
06/12	0.780	1.100	1.220	1.533	1.902		19.81	27.94	30.99	38.94	48.31	
07/14	0.936	1.256	1.376	1.689	2.058		23.77	31.90	34.95	42.90	52.27	
08/16	1.092	1.412	1.532	1.845	2.214		27.74	35.86	38.91	46.86	56.24	
10/20	1.404	1.724	1.844	2.157	2.526		35.66	43.79	46.84	54.79	64.16	
11/22	1.560	1.880	2.000	2.313	2.682		39.62	47.75	50.80	58.75	68.12	
12/24	1.716	2.036	2.156	2.469	2.838		43.59	51.71	54.76	62.71	72.09	
15/30	2.184	2.504	2.624	2.937	3.306		55.47	63.60	66.65	74.60	83.97	
18/36	2.652	2.972	3.092	3.405	3.774		67.36	75.49	78.54	86.49	95.86	
22/44	3.276	3.596	3.716	4.029	4.398		83.21	91.34	94.39	102.34	111.71	
24/48	3.588	3.908	4.028	4.341	4.710		91.14	99.26	102.31	110.26	119.63	
25/50	3.744	4.064	4.184	4.497	4.866		95.10	103.23	106.27	114.22	123.60	
28/56	4.212	4.532	4.652	4.965	5.334	0.438	106.98	115.11	118.16	126.11	135.48	11.13
36/72	5.460	5.780	5.900	6.213	6.582		138.68	146.81	149.86	157.81	167.18	
43/86	6.552	6.872	6.992	7.305	7.674	0.500	166.42	174.55	177.60	185.55	194.92	12.70
44/88	6.708	7.028	7.148	7.461	7.830		170.38	178.51	181.56	189.51	198.88	

* Consult factory for availability.

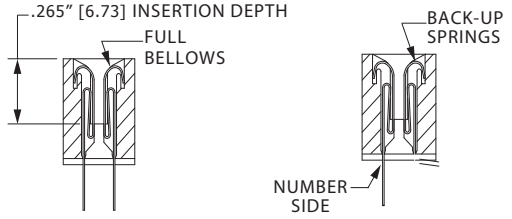
.156" [3.96 mm] Contact Centers, .431" [10.95 mm] Insulator Height, Special Body Configuration Dip Solder/Eyelet/Right Angle

SPECIFICATIONS

- Accommodates .062" ± .008" [1.57 mm ± 0.20 mm] PC board
- Molded-in key available
- 3 Amps current rating for one contact energized (for 5 Amps application, consult factory)
- 30 milli Ohms maximum at rated current
- UL Flammability Rating: 94V-0



READOUT

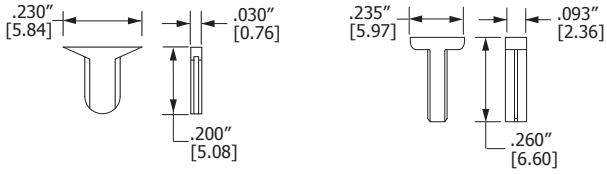


DUAL (D) HALF LOADED (H)

POLARIZING KEY

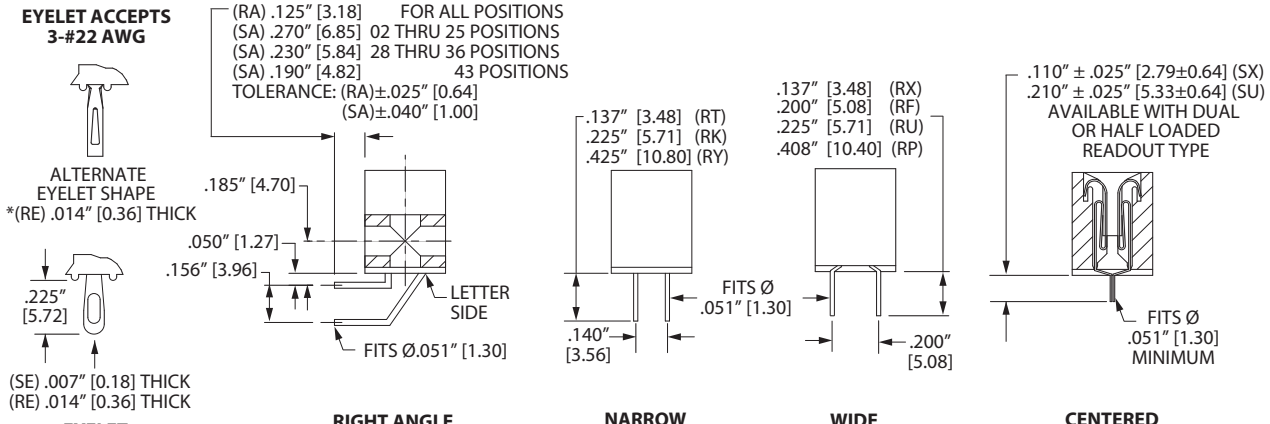
PLA-K1
KEY IN BETWEEN CONTACTS
(ORDER SEPARATELY)

PLM-K2
KEY IN CONTACT
(ORDER SEPARATELY)

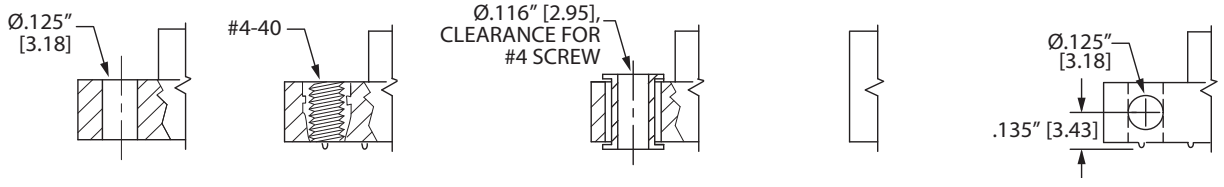


CONSULT FACTORY FOR MOLDED-IN KEY

TERMINATION TYPE



MOUNTING STYLE



* Beryllium Copper & Beryllium Nickel (H, A, J, F, C & W Material Codes) Only.

.156" [3.96 mm] Contact Centers, .431" [10.95 mm] Insulator Height, Special Body Configuration Dip Solder/Eyelet/Right Angle

PART NUMBER OPTIONS

E B M 43 D RT H - S37

MATERIALS (INSULATOR/CONTACT)
- E = PBT/Phosphor Bronze (Standard)
- R = PPS/Phosphor Bronze
- G = PA9T/Phosphor Bronze
- H = PBT/Beryllium Copper
- A = PPS/Beryllium Copper
- J = PA9T/Beryllium Copper
- *F = PPS/Spinodal (Overall Gold Plating Only) Consult Factory for Special Soldering Guidelines
- *C = PPS/Beryllium Nickel (Overall Gold Plating Only)
- *W = PEEK/Beryllium Nickel (Overall Gold Plating Only)

*Consult factory for availability.
Refer to Page 7 for Operating/Processing Temperatures

CONTACT FINISH - RoHS Compliant

All platings are Lead Free and have .000050" Nickel underplate

	Contact Surface	Termination
B =	.000010" Gold	.000100" Pure Tin, Matte
C =	.000030" Gold	.000100" Pure Tin, Matte
G =	.000010" Gold	.000005" Gold
Y =	.000030" Gold	.000005" Gold

	Contact Surface	Overall Plating
S =	.000010" Gold	.000010" Gold
M =	.000030" Gold	.000010" Gold
E =	.000100" Pure Tin, Matte	.000100" Pure Tin, Matte

CONTACT CENTERS
- M = .156" [3.96 mm]

NUMBER OF CONTACT POSITIONS
28 (14/14), 36 or 43

MODIFICATION CODE (Consult Factory)
- -S37 = Reverse Contact ID & Shorter Card Slot Length
- -S92 = Center Barrier Molded in Card Slot

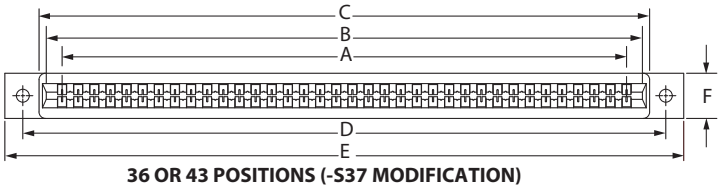
MOUNTING STYLE (Opposite Page)
- H = .125" [3.18 mm] Clearance Holes
- N = No Mounting
- S = Side Mounting
- I = Threaded Inserts
- F = Floating Bobbin

TERMINATION TYPE (Opposite Page)
- RA = .125" [3.18 mm] Right Angle Dip Solder
- SA = Long Right Angle Dip Solder
- RT = .140" X .137" [3.56 mm X 3.48 mm] Dip Solder
- RK = .140" X .225" [3.56 mm X 5.72 mm] Dip Solder
- RY = .140" X .425" [3.56 mm X 10.80 mm] Dip Solder
- RX = .200" X .137" [5.08 mm X 3.48 mm] Dip Solder
- RF = .200" X .200" [5.08 mm X 5.08 mm] Dip Solder
- RU = .200" X .225" [5.08 mm X 5.72 mm] Dip Solder
- RP = .200" X .408" [5.08 mm X 10.36 mm] Dip Solder
- SX = .110" [2.79 mm] Centered Dip Solder
- SU = .210" [5.33 mm] Centered Dip Solder
- SE = .007" [0.18 mm] Thick Eyelet
- RE = .014" [0.36 mm] Thick Eyelet

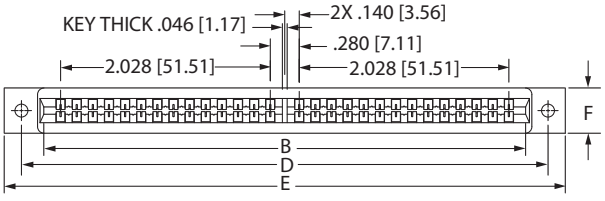
READOUT (Opposite Page)
- D = Dual
- D = Dual Row/ Crimp to Center for Single Readout (SX, SU Termination Only)
- H = Half Loaded

DIMENSIONS

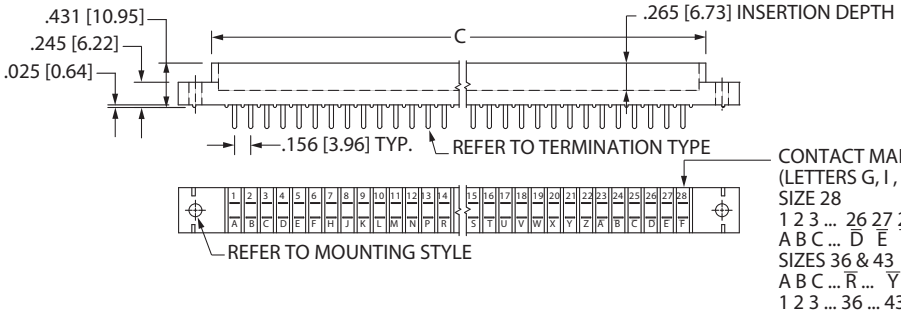
Dimensions in [ ] are in millimeters, all others are in inches.



36 OR 43 POSITIONS (-S37 MODIFICATION)



28 POSITIONS (-S92 MODIFICATION)



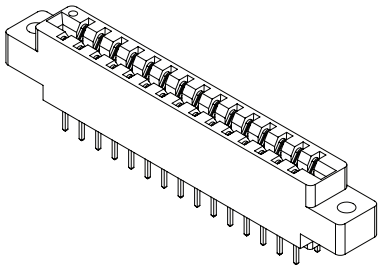
Tolerances on non-critical dimensions may very slightly due to shrinkage differential per insulator material; Consult factory.

POSITIONS/ CONTACTS	INCHES						MILLIMETERS						CENTER BARRIER
	A±.008	B±.008	C±.015	D±.010	E MAX	F+.005/ -.015	A±0.20	B±0.20	C±0.38	D±0.25	E MAX	F+0.13/ -0.38	
28/56		4.660	4.780	5.093	5.427	0.438		118.36	121.41	129.36	137.85	11.13	YES
36/72	5.460	5.766	5.906	6.219	6.566	0.438	138.68	146.46	150.01	157.96	166.78	11.13	NO
43/86	6.552	6.810	7.000	7.302	7.643	0.500	166.42	172.97	177.80	185.47	194.13	12.70	NO

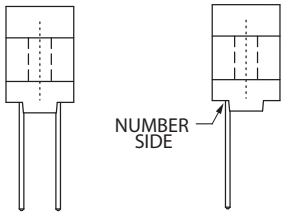
.156" [3.96 mm] Contact Centers, .610" [15.49 mm] Insulator Height, Dip Solder/Wire Wrap/Right Angle/Card Extender

SPECIFICATIONS

- Accommodates .062" ± .008" [1.57 mm ± 0.20 mm] PC board (See following pages for .093" ± .008" [2.36 mm ± 0.20 mm] and .125"± .008" [3.18 mm ± 0.20 mm] mating PCB)
- PBT, PPS or PA9T insulator
- Molded-in key available
- 3 Amps current rating for one contact energized
- 30 milli Ohms maximum at rated current
- UL Flammability Rating: 94V-0



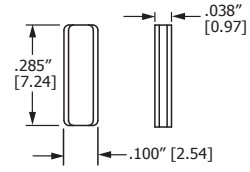
READOUT



DUAL (D) HALF LOADED (H)

POLARIZING KEY

PLC-K1

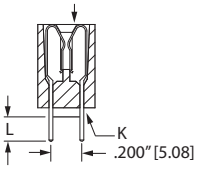


KEY IN BETWEEN CONTACTS (ORDER SEPARATELY)

TERMINATION TYPE

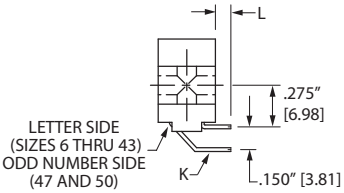
HAIRPIN BELLOWS	TERMINATION TYPE	POST CROSS SECTION K	POST LENGTH L .025"[0.64]	FITS MIN. HOLE SIZE
CW	DIP SOLDER	.015" X .025" [0.38 X 0.64]	.125" [3.18]	.035" [0.89]
CT	DIP SOLDER	.015" X .025" [0.38 X 0.64]	.170" [4.32]	.035" [0.89]
CS	DIP SOLDER	.025" [0.64] SQUARE	.160" [4.06]	.040" [1.02]
CM	WIRE WRAP	.025" [0.64] SQUARE	.560" [14.20]	.040" [1.02]
CA	RIGHT ANGLE	.025" [0.64] SQUARE	.100" [2.54]	.043" [1.09]
CB	RIGHT ANGLE	.025" [0.64] SQUARE	.180" [4.57]	.043" [1.09]
CC	RIGHT ANGLE	.025" [0.64] SQUARE	.250" [6.35]	.043" [1.09]

HAIRPIN BELLOWS



(CW, CT, CS, CM)

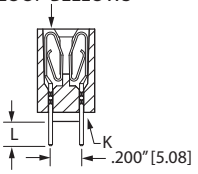
RIGHT ANGLE



(CA, CB, CC, TA, TB, TM, KA, KE, KU, KJ)

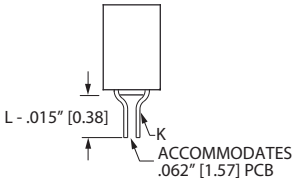
LOOP BELLOWS	TERMINATION TYPE	POST CROSS SECTION K	POST LENGTH L .025"[0.64]	FITS MIN. HOLE SIZE
TK,CK	DIP SOLDER	.025" [0.64] ROUND	.190" [4.83]	.033" [0.84]
RS	DIP SOLDER	.025" [0.64] SQUARE	.190" [4.83]	.040" [1.02]
RM	WIRE WRAP	.025" [0.64] SQUARE	.560" [14.20]	.040" [1.02]
TA	RIGHT ANGLE	.025" [0.64] SQUARE	.100" [2.54]	.043" [1.09]
TB	RIGHT ANGLE	.025" [0.64] SQUARE	.180" [4.57]	.043" [1.09]
TM	RIGHT ANGLE	.025" [0.64] SQUARE	.250" [6.35]	.043" [1.09]

LOOP BELLOWS



(TK, CK, RS, RM)

HAIRPIN or LOOP CARD EXTENDER

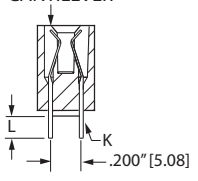


(CT, CS, CM,TK, CK, RS,RM)
Example P/N: EBM10DCSN-S288
(Requires -S288 Modification Code)

CANTILEVER	TERMINATION TYPE	POST CROSS SECTION K	POST LENGTH L .025"[0.64]	FITS MIN. HOLE SIZE
KS	DIP SOLDER	.025" [0.64] SQUARE	.190" [4.83]	.040" [1.02]
KD	DIP SOLDER	.025" [0.64] SQUARE	.160" [4.06]	.043" [1.09]
KM	WIRE WRAP	.025" [0.64] SQUARE	.560" [14.20]	.040" [1.02]
*KA	RIGHT ANGLE	.025" [0.64] SQUARE	.100" [2.54]	.043" [1.09]
*KE	RIGHT ANGLE	.025" [0.64] SQUARE	.180" [4.57]	.043" [1.09]
*KU	RIGHT ANGLE	.025" [0.64] SQUARE	.250" [6.35]	.043" [1.09]
*KJ	RIGHT ANGLE	.025" [0.64] SQUARE	.500" [12.70]	.043" [1.09]
*KR	CARD EXTENDER	.025" [0.64] SQUARE	.235" [5.97]	N/A
*KN	CARD EXTENDER	.025" [0.64] SQUARE	.605" [15.37]	N/A

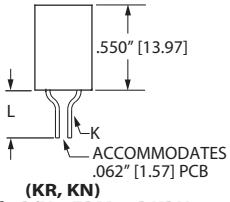
*** KA, KE, KJ, KR, KN have no standoffs, unless requested.**

CANTILEVER



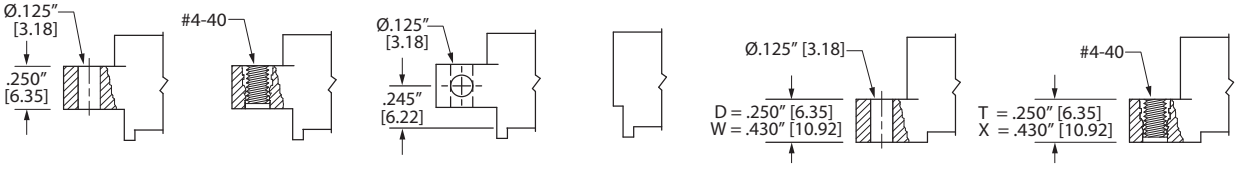
(KS, KD, KM)

CANTILEVER CARD EXTENDER



(KR, KN)
Example P/N: EBM10DKRN
(-S288 Not required)

MOUNTING STYLE



CLEARANCE HOLE (H) | THREADED INSERT(I) | SIDE MOUNTING (S) | NO MOUNTING EARS (N) | FLUSH MOUNTING (D, W) | FLUSH MOUNTING WITH THREADED INSERT(T, X)

.156" [3.96 mm] Contact Centers, .610" [15.49 mm] Insulator Height, Dip Solder/Wire Wrap/Right Angle/Card Extender

PART NUMBER OPTIONS

E B M 43 D CM H - Sxxx

MATERIALS (INSULATOR/CONTACT)
- E = PBT/Phosphor Bronze (Standard)
- R = PPS/Phosphor Bronze
- G = PA9T/Phosphor Bronze
- H = PBT/ Beryllium Copper
- A = PPS/Beryllium Copper
- J = PA9T/Beryllium Copper

(Consult factory for other materials.)
Refer to Page 7 for Operating/Processing Temperatures

CONTACT FINISH - RoHS Compliant
All platings are Lead Free and have .000050" Nickel underplate

	Contact Surface	Termination
B =	.000010" Gold	.000100" Pure Tin, Matte
C =	.000030" Gold	.000100" Pure Tin, Matte
G =	.000010" Gold	.000005" Gold
Y =	.000030" Gold	.000005" Gold

	Contact Surface	Overall Plating
S =	.000010" Gold	.000010" Gold
M =	.000030" Gold	.000010" Gold
E =	.000100" Pure Tin, Matte	.000100" Pure Tin, Matte

CONTACT CENTERS
- M = .156" [3.96 mm]

NUMBER OF CONTACT POSITIONS
See Chart Below

READOUT (Opposite Page)
- D = Dual
- H = Half Loaded

MODIFICATION CODE (Consult Factory)
OMIT FOR STANDARD
- -S189 = .200" [5.08 mm] Row Spacing on Right Angle
- -S288* = Card Extender Accepts .062" [1.57 mm] PCB

* Not Required on KR or KN Terminations

MOUNTING STYLE (Opposite Page)
- H = Clearance Holes
- I = Threaded Inserts
- S = Side Mounting
- N = No Mounting
- D, W = Flush Mounting
- T, X = Flush Mounting With Threaded Inserts

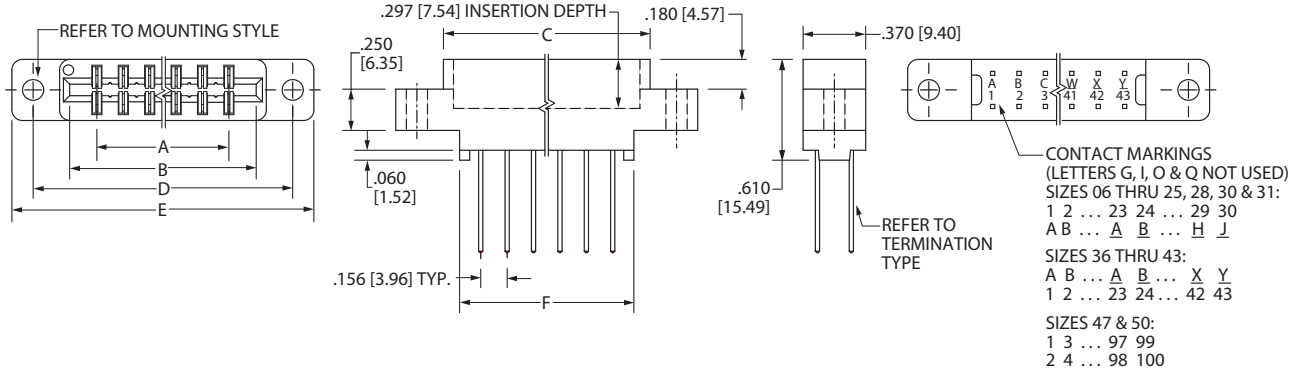
TERMINATION TYPE (Opposite Page)

Hairpin Bellows -
Available with B or C plating and Phosphor Bronze Only
- CS = .025" [0.64 mm] Square Dip Solder
- CM = .025" [0.64 mm] Square Wire Wrap
- CA, CB, CC = .025" [0.64 mm] Square Right Angle
- CW, CT = .015" X .025" [0.38 mm X 0.64 mm] Dip Solder

Loop Bellows
- RS = .025" [0.64 mm] Square Dip Solder
- CK, TK = .025" [0.64 mm] Round Dip Solder
- RM = .025" [0.64 mm] Square Wire Wrap
- TA, TB, TM = .025" [0.64 mm] Square Right Angle

Cantilever Bellows - Available in Y, B, or C Contact Finish Only
- KS, KD = .025" [0.64 mm] Square Dip Solder
- KM = .025" [0.64 mm] Square Wire Wrap
- KA, KE, KU, KJ = .025" [0.64 mm] Square Right Angle
- KR, KN = .025" [0.64 mm] Square Card Extender

DIMENSIONS
Dimensions in [ ] are in millimeters, all others are in inches.



Tolerances on non-critical dimensions may very slightly due to shrinkage differential per insulator material; Consult factory.

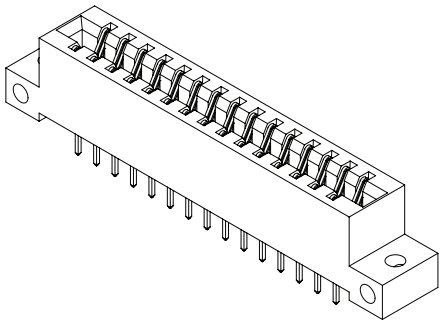
POSITIONS/ CONTACTS	INCHES						MILLIMETERS					
	A±.008	B±.008	C±.015	D±.010	E±.020	F±.015	A±0.20	B±0.20	C±0.38	D±0.25	E±0.51	F±0.38
06/12	0.780	1.102	1.221	1.534	1.784	1.030	19.81	27.99	31.01	38.96	45.31	26.16
08/16	1.092	1.414	1.533	1.846	2.096	1.342	27.74	35.92	38.94	46.89	53.24	34.09
10/20	1.404	1.726	1.845	2.158	2.408	1.654	35.66	43.84	46.86	54.81	61.16	42.01
12/24	1.716	2.038	2.157	2.470	2.720	1.966	43.59	51.77	54.79	62.74	69.09	49.94
15/30	2.184	2.506	2.625	2.938	3.188	2.434	55.47	63.65	66.68	74.63	80.98	61.82
18/36	2.652	2.974	3.093	3.406	3.656	2.902	67.36	75.54	78.56	86.51	92.86	73.71
20/40*	2.964	3.286	3.405	3.718	3.968	3.214	75.29	83.46	86.49	94.44	100.79	81.64
22/44	3.276	3.598	3.717	4.030	4.280	3.526	83.21	91.39	94.41	102.36	108.71	89.56
24/48	3.588	3.910	4.029	4.342	4.592	3.838	91.14	99.31	102.34	110.29	116.64	97.49
25/50	3.744	4.066	4.185	4.498	4.748	3.994	95.10	103.28	106.30	114.25	120.60	101.45
28/56	4.212	4.534	4.653	4.966	5.216	4.462	106.98	115.16	118.19	126.14	132.49	113.33
30/60	4.524	4.846	4.965	5.278	5.528	4.774	114.91	123.09	126.11	134.06	140.41	121.26
31/62	4.680	5.002	5.121	5.434	5.684	4.930	118.87	127.05	130.07	138.02	144.37	125.22
36/72	5.460	5.782	5.901	6.214	6.464	5.710	138.68	146.86	149.89	157.84	164.19	145.03
40/80	6.084	6.406	6.525	6.838	7.088	6.334	154.53	162.71	165.74	173.69	180.04	160.88
43/86	6.552	6.874	6.993	7.306	7.556	6.802	166.42	174.60	177.62	185.57	191.92	172.77
47/94	7.176	7.498	7.617	7.930	8.180	7.426	182.27	190.45	193.47	201.42	207.77	188.62
50/100	7.644	7.966	8.085	8.398	8.648	7.894	194.16	202.34	205.36	213.31	219.66	200.51

* Consult factory for availability.

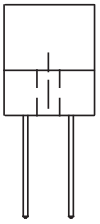
.156" [3.96 mm] Contact Centers, .610" [15.49 mm] Insulator Height, Dip Solder/Wire Wrap/Right Angle for .093"[2.36 mm] or .125"[3.18 mm] Mating PCB

SPECIFICATIONS

- Accommodates .093" ± .008" [2.36 mm ± 0.20 mm] or .125" ± .008" [3.18 mm ± 0.20 mm] mating PCB (Consult factory for .031" ± .006" [0.79 mm ± 0.15 mm] PC boards)
- PBT, PPS or PA9T insulator
- Molded-in key available
- 3 Amps current rating for one contact energized
- 30 milli Ohms maximum at rated current
- UL Flammability Rating: 94V-0

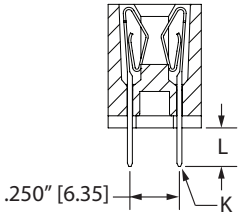


READOUT

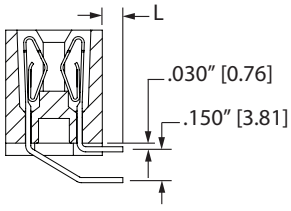


DUAL (D)

TERMINATION TYPE



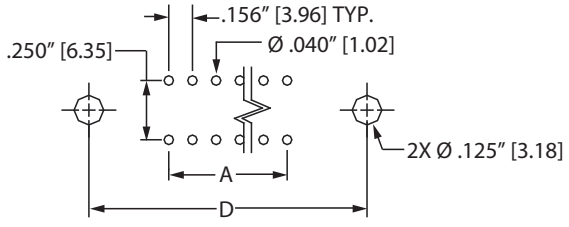
LOOP BELLOWS (RS, RM)



RIGHT ANGLE DIP SOLDER (TA, TB, TM)

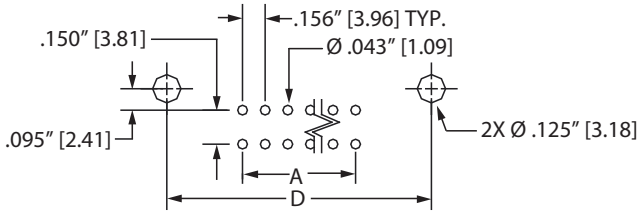
TERMINATION TYPE		POST CROSS SECTION (K)	POST LENGTH L ± .025"[0.64]	FITS MIN. HOLE SIZE
RS	Dip Solder	.025" [0.64] SQUARE	.190" [4.83]	.040" [1.02]
RM	Wire Wrap	.025" [0.64] SQUARE	.560" [14.20]	.040" [1.02]
TA	Right Angle	.025" [0.64] SQUARE	.100" [2.54]	.043" [1.09]
TB	Right Angle	.025" [0.64] SQUARE	.180" [4.57]	.043" [1.09]
TM	Right Angle	.025" [0.64] SQUARE	.250" [6.35]	.043" [1.09]

PCB LAYOUT



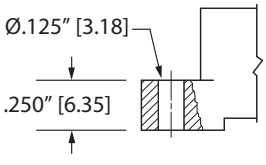
STRAIGHT PIN TERMINATIONS (RS, RM)

COMPONENT SIDE



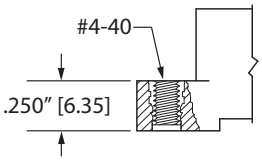
RIGHT ANGLE TERMINATIONS (TA, TB, TM)

MOUNTING STYLE

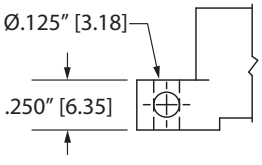


FLUSH MOUNTING (D)

NO MOUNTING EARS (N)



FLUSH MOUNTING WITH THREADED INSERT (T)



FLUSH MOUNTING WITH SIDE HOLES (Z)

.156" [3.96 mm] Contact Centers, .610" [15.49 mm] Insulator Height, Dip Solder/Wire Wrap/Right Angle for .093" [2.36 mm] or .125" [3.18 mm] Mating PCB

PART NUMBER OPTIONS

E B M 43 D RM D - S273

MATERIALS (INSULATOR/CONTACT)
E = PBT/Phosphor Bronze (Standard)
R = PPS/Phosphor Bronze
G = PA9T/Phosphor Bronze
H = PBT/ Beryllium Copper
A = PPS/Beryllium Copper
J = PA9T/Beryllium Copper
(Consult factory for other materials.)
Refer to Page 7 for Operating/Processing Temperatures

CONTACT FINISH - RoHS Compliant
All platings are Lead Free and have .000050" Nickel underplate

	Contact Surface	Termination
B =	.000010" Gold	.000100" Pure Tin, Matte
C =	.000030" Gold	.000100" Pure Tin, Matte
G =	.000010" Gold	.000005" Gold
Y =	.000030" Gold	.000005" Gold
	Contact Surface	**Overall Plating**
S =	.000010" Gold	.000010" Gold
M =	.000030" Gold	.000010" Gold
E =	.000100" Pure Tin, Matte	.000100" Pure Tin, Matte

CONTACT CENTERS
M = .156" [3.96 mm]

MODIFICATION CODE (Consult Factory)
-S273 = FOR .093" ± .008" [2.36 mm ± 0.20 mm] THICK MATING PCB
-S664 = FOR .125" ± .008" [3.18 mm ± 0.20 mm] THICK MATING PCB

MOUNTING STYLE (Opposite Page)
N = No Mounting
D = Flush Mounting
T = Flush Mounting With Threaded Inserts
Z = Flush Mounting With Side Holes

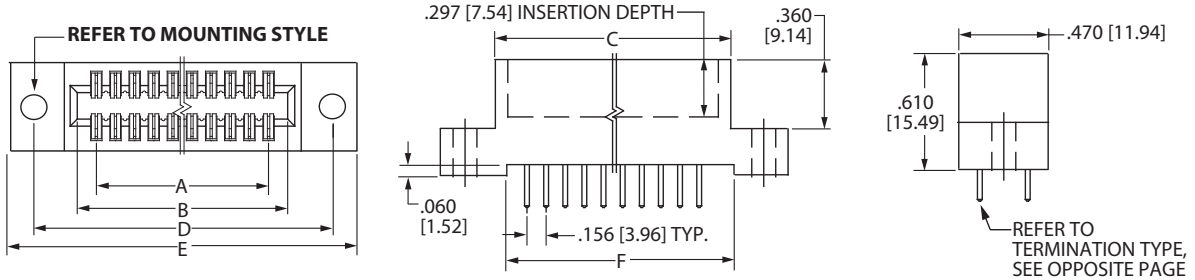
TERMINATION TYPE (Opposite Page)
RS = .025" [0.64 mm] Square Dip Solder
RM = .025" [0.64 mm] Square Wire Wrap
TA, TB, TM = .025" [0.64 mm] Square Right Angle

READOUT (Opposite Page)
D = Dual

NUMBER OF CONTACT POSITIONS
See Chart Below

DIMENSIONS

Dimensions in [ ] are in millimeters, all others are in inches.



Tolerances on non-critical dimensions may very slightly due to shrinkage differential per insulator material; Consult factory.

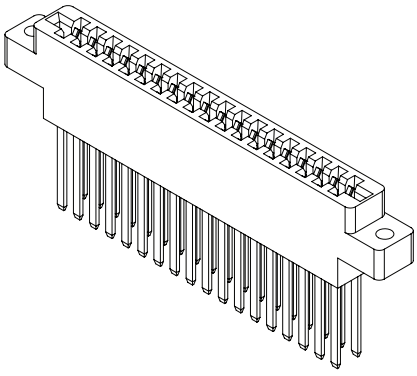
POSITIONS/ CONTACTS	INCHES						MILLIMETERS					
	A±.008	B±.008	C±.015	D±.010	E±.020	F±.015	A±0.20	B±0.20	C±0.38	D±0.25	E±0.51	F±0.38
06/12	0.780	1.102	1.221	1.534	1.784	1.104	19.81	27.99	31.01	38.96	45.31	28.04
08/16*	1.092	1.414	1.533	1.846	2.096	1.416	27.74	35.92	38.94	46.89	53.24	35.97
10/20	1.404	1.726	1.845	2.158	2.408	1.728	35.66	43.84	46.86	54.81	61.16	43.89
12/24	1.716	2.038	2.157	2.470	2.720	2.040	43.59	51.77	54.79	62.74	69.09	51.82
15/30	2.184	2.506	2.625	2.938	3.188	2.508	55.47	63.65	66.68	74.63	80.98	63.70
18/36	2.652	2.974	3.093	3.406	3.656	2.976	67.36	75.54	78.56	86.51	92.86	75.59
20/40	2.964	3.286	3.405	3.718	3.968	3.288	75.29	83.46	86.49	94.44	100.79	83.52
22/44	3.276	3.598	3.717	4.030	4.280	3.600	83.21	91.39	94.41	102.36	108.71	91.44
24/48*	3.588	3.910	4.029	4.342	4.592	3.912	91.14	99.31	102.34	110.29	116.64	99.37
25/50*	3.744	4.066	4.185	4.498	4.748	4.068	95.10	103.28	106.30	114.25	120.60	103.33
28/56*	4.212	4.534	4.653	4.966	5.216	4.536	106.98	115.16	118.19	126.14	132.49	115.21
30/60*	4.524	4.846	4.965	5.278	5.528	4.848	114.91	123.09	126.11	134.06	140.41	123.14
31/62*	4.680	5.002	5.121	5.434	5.684	5.004	118.87	127.05	130.07	138.02	144.37	127.10
32/64	4.836	5.158	5.277	5.590	5.840	5.160	122.83	131.01	134.04	141.99	148.34	131.06
36/72	5.460	5.782	5.901	6.214	6.464	5.784	138.68	146.86	149.89	157.84	164.19	146.91
40/80*	6.084	6.406	6.525	6.838	7.088	6.408	154.53	162.71	165.74	173.69	180.04	162.76
43/86*	6.552	6.874	6.993	7.306	7.556	6.876	166.42	174.60	177.62	185.57	191.92	174.65

* Consult factory for availability.

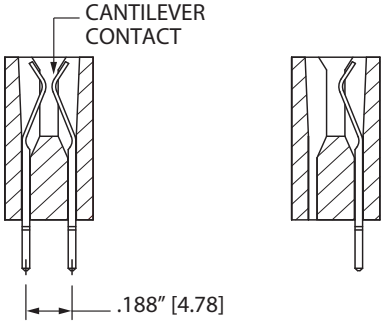
.156" [3.96 mm] Contact Centers, .720" [18.29 mm] Insulator Height, .045" [1.14 mm] square / .031" [0.79 mm] X .062" [1.57 mm] Wire Wrap

SPECIFICATIONS

- Accommodates .062" ± .008" [1.57 mm ± 0.20 mm] PC board
- PBT insulator
- Molded-in key available
- 3 Amps current rating per contact for contacts fully energized (for 5 Amps application, consult factory)
- 30 milli Ohms maximum at rated current
- UL Flammability Rating: 94V-0

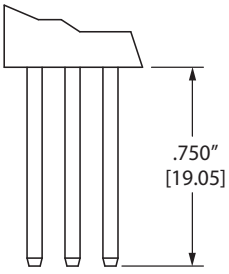


READOUT

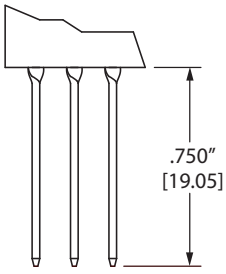


DUAL (D) **HALF LOADED (H)**

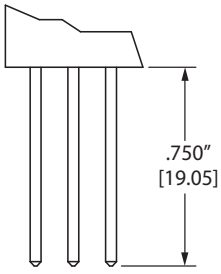
TERMINATION TYPE



.062" X .031" [1.57 X 0.79] POSTS, (KK)

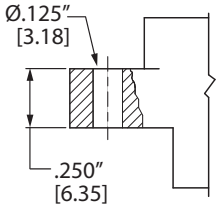


.031" X .062" [0.79 X 1.57] 90° TWISTED POSTS, (KL)



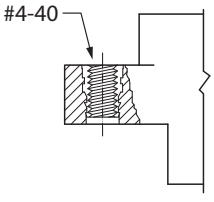
.045" [1.14] SQUARE POSTS (WW)

MOUNTING STYLE



CLEARANCE HOLE (H)

NO MOUNTING EARS (N)



THREADED INSERT (I)

.156" [3.96 mm] Contact Centers, .720" [18.29 mm] Insulator Height, .045" [1.14 mm] square / .031" [0.79 mm] X .062" [1.57 mm] Wire Wrap

PART NUMBER OPTIONS

E B M 43 D KK H - Sxxx

MATERIALS (INSULATOR/CONTACT)
E = PBT/Phosphor Bronze (Standard)
(Consult factory for other materials.)
Refer to Page 7 for Operating/Processing Temperatures

CONTACT FINISH - RoHS Compliant
All platings are Lead Free and have .000050" Nickel underplate

	Contact Surface	Termination
B =	.000010" Gold	.000100" Pure Tin, Matte
C =	.000030" Gold	.000100" Pure Tin, Matte
G =	.000010" Gold	.000005" Gold
Y =	.000030" Gold	.000005" Gold
	Contact Surface	**Overall Plating**
S =	.000010" Gold	.000010" Gold
M =	.000030" Gold	.000010" Gold
E =	.000100" Pure Tin, Matte	.000100" Pure Tin, Matte

CONTACT CENTERS
M = .156" [3.96 mm]

MODIFICATION CODE (Consult Factory)
OMIT FOR STANDARD

MOUNTING STYLE (Opposite page)
H = Clearance Hole
N = No Mounting
I = Threaded Inserts

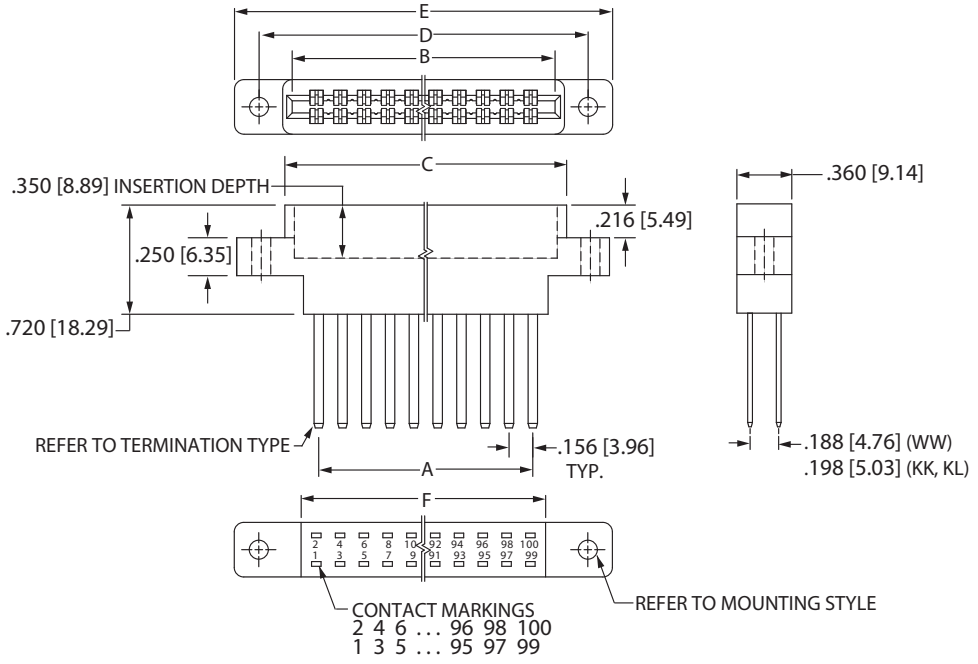
TERMINATION TYPE (Opposite Page)
KK = .062" X .031" [1.57 mm X 0.79 mm] Post
KL = .031" X .062" [0.79 mm X 1.57 mm] Post, Twisted 90°
WW = .045" [1.14 mm] Square Post

READOUT (Opposite Page)
D = Dual Row
H = Half Loaded

NUMBER OF CONTACT POSITIONS
See Chart Below

DIMENSIONS

Dimensions in [ ] are in millimeters, all others are in inches.



POSITIONS/ CONTACTS	INCHES						MILLIMETERS					
	A±.008	B±.008	C±.015	D±.010	E±.020	F±.015	A±0.20	B±0.20	C±0.38	D±0.25	E±0.51	F±0.38
06/12	0.780	1.100	1.224	1.534	1.784	0.980	19.81	27.94	31.09	38.96	45.31	24.89
10/20	1.404	1.724	1.848	2.158	2.408	1.604	35.66	43.79	46.94	54.81	61.16	40.74
12/24	1.716	2.036	2.160	2.470	2.720	1.916	43.59	51.71	54.86	62.74	69.09	48.67
15/30	2.184	2.504	2.628	2.938	3.188	2.384	55.47	63.60	66.75	74.63	80.98	60.55
18/36	2.652	2.972	3.096	3.406	3.656	2.852	67.36	75.49	78.64	86.51	92.86	72.44
20/40	2.964	3.284	3.408	3.718	3.968	3.164	75.29	83.41	86.56	94.44	100.79	80.37
22/44	3.276	3.596	3.720	4.030	4.280	3.476	83.21	91.34	94.49	102.36	108.71	88.29
25/50*	3.744	4.064	4.188	4.498	4.748	3.944	95.10	103.23	106.38	114.25	120.60	100.18
28/56	4.212	4.532	4.656	4.966	5.216	4.412	106.98	115.11	118.26	126.14	132.49	112.06
30/60*	4.524	4.844	4.968	5.278	5.528	4.724	114.91	123.04	126.19	134.06	140.41	119.99
31/62*	4.680	5.000	5.124	5.434	5.684	4.880	118.87	127.00	130.15	138.02	144.37	123.95
36/72	5.460	5.780	5.904	6.214	6.464	5.660	138.68	146.81	149.96	157.84	164.19	143.76
43/86	6.552	6.872	6.996	7.306	7.556	6.752	166.42	174.55	177.70	185.57	191.92	171.50
50/100*	7.644	7.964	8.088	8.398	8.648	7.844	194.16	202.29	205.44	213.31	219.66	199.24

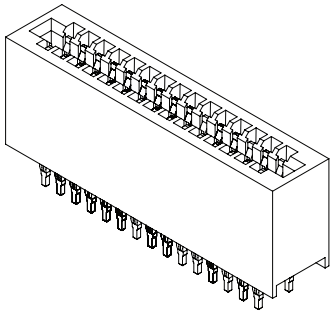
* Consult factory for availability.

SULLINS

.100" [2.54 mm] Contact Centers, .550" [13.97 mm] or .610" [15.49 mm] Profile, Press Fit

SPECIFICATIONS

- UL Flammability Rating: 94V-0
- Designed to meet specifications of Bellcore specification TR-TSY-00078.
- Flat rock installation eliminates the need for any special installation tool.
- Integrally molded scoops available to assist daughter card entry.
- Molded-in key available



FEATURES

COMPLIANT SECTION INSERTION FORCE
40 lbs maximum per contact

COMPLIANT SECTION WITHDRAWAL FORCE
10 lbs minimum per contact

HOLE SIZE REQUIREMENTS
Drilled Hole Diameter: .0453" ± .0010" [1.150 mm ± 0.025 mm]
Plating: .001" [0.03 mm] to .003" [0.08 mm] Copper and .0003" [0.008 mm] Minimum Tin

FINISHED HOLE DIAMETER
.040" ± .003" [1.02 mm ± 0.08 mm]

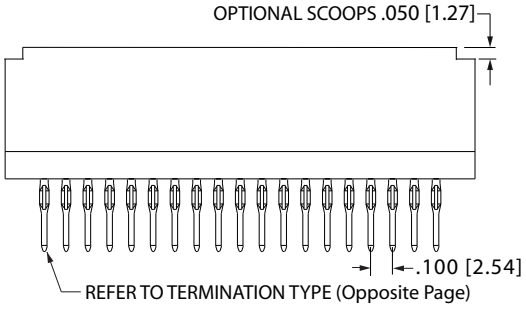
SUITABLE FOR .062" [1.57] DAUGHTER CARD

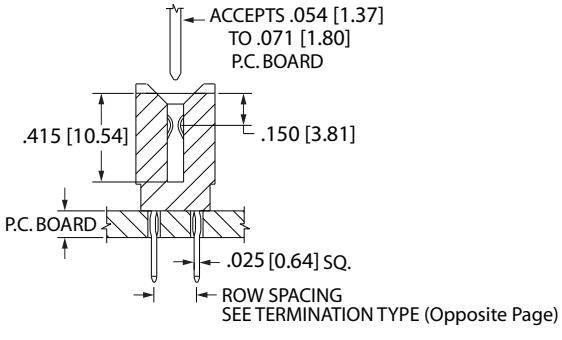
RECOMMENDED MOTHERBOARD THICKNESS
.093" to .125" [2.36 mm to 3.18 mm]

UL-CUL RECOGNIZED

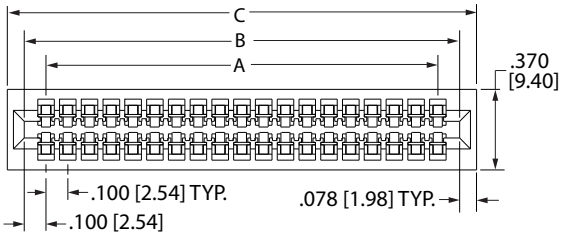
DIMENSIONS

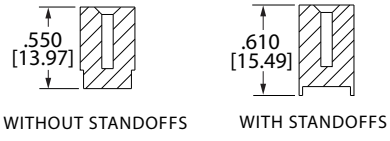
Dimensions in [ ] are in millimeters, all others are in inches.





-S1136 (WITH SCOOPS) SHOWN ABOVE





STANDOFF VIEWS WITH NO SCOOPS SHOWN

.100" [2.54 mm] Contact Centers, .550" [13.97 mm] or .610" [15.49 mm] Profile, Press Fit

PART NUMBER OPTIONS

E C C 43 D JB N - Sxxx

MATERIALS (INSULATOR/CONTACT)
E = PBT/Phosphor Bronze
Refer to Page 7 for Operating/Processing Temperatures

CONTACT FINISH - RoHS Compliant
All platings are Lead Free and have .000050" Nickel underplate

Contact Surface	Termination
C = .000030" Gold	.000100" Pure Tin, Matte

CONTACT CENTERS
C = .100" [2.54 mm]

NUMBER OF CONTACT POSITIONS
See Chart Below

READOUT
D = Dual

MODIFICATIONS (Consult Factory)
OMIT FOR STANDARD
Special Number assigned for specials such as:
- Scoops (-S1136)
- Other Card Slot Depths

MOUNTING STYLE
N = No Mounting

TERMINATION TYPE

Standoffs	*Row Spacing*	*Tail Length*
JB = No*	.200" [5.08 mm]	.190" [4.83 mm]
JC = No*	.200" [5.08 mm]	.625" [15.88 mm]
JW = Yes	.200" [5.08 mm]	.190" [4.83 mm]
JX = Yes	.200" [5.08 mm]	.565" [14.35 mm]
JF = No*	.100" [2.54 mm]	.190" [4.83 mm]
JG = No*	.100" [2.54 mm]	.625" [15.88 mm]
JY = Yes	.100" [2.54 mm]	.190" [4.83 mm]
JZ = Yes	.100" [2.54 mm]	.565" [14.35 mm]

* Consult factory for availability.

POSITIONS/ CONTACTS	A±.008[0.20]		B±.008[0.20]		C±.015[0.38]	
	in	mm	in	mm	in	mm
05/10	0.400	10.16	0.600	15.24	0.756	19.20
06/12	0.500	12.70	0.700	17.78	0.856	21.74
07/14	0.600	15.24	0.800	20.32	0.956	24.28
08/16*	0.700	17.78	0.900	22.86	1.056	26.82
09/18*	0.800	20.32	1.000	25.40	1.156	29.36
10/20	0.900	22.86	1.100	27.94	1.256	31.90
11/22*	1.000	25.40	1.200	30.48	1.356	34.44
12/24	1.100	27.94	1.300	33.02	1.456	36.98
13/26	1.200	30.48	1.400	35.56	1.556	39.52
14/28*	1.300	33.02	1.500	38.10	1.656	42.06
15/30	1.400	35.56	1.600	40.64	1.756	44.60
16/32	1.500	38.10	1.700	43.18	1.856	47.14
17/34	1.600	40.64	1.800	45.72	1.956	49.68
18/36	1.700	43.18	1.900	48.26	2.056	52.22
19/38*	1.800	45.72	2.000	50.80	2.156	54.76
20/40	1.900	48.26	2.100	53.34	2.256	57.30
21/42*	2.000	50.80	2.200	55.88	2.356	59.84
22/44	2.100	53.34	2.300	58.42	2.456	62.38
23/46	2.200	55.88	2.400	60.96	2.556	64.92
24/48	2.300	58.42	2.500	63.50	2.656	67.46
25/50	2.400	60.96	2.600	66.04	2.756	70.00
26/52	2.500	63.50	2.700	68.58	2.856	72.54
27/54*	2.600	66.04	2.800	71.12	2.956	75.08
28/56	2.700	68.58	2.900	73.66	3.056	77.62
29/58*	2.800	71.12	3.000	76.20	3.156	80.16
30/60	2.900	73.66	3.100	78.74	3.256	82.70
31/62	3.000	76.20	3.200	81.28	3.356	85.24
32/64*	3.100	78.74	3.300	83.82	3.456	87.78

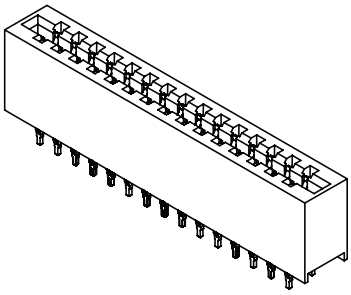
POSITIONS/ CONTACTS	A±.008[0.20]		B±.008[0.20]		C±.015[0.38]	
	in	mm	in	mm	in	mm
33/66*	3.200	81.28	3.400	86.36	3.556	90.32
34/68	3.300	83.82	3.500	88.90	3.656	92.86
35/70	3.400	86.36	3.600	91.44	3.756	95.40
36/72	3.500	88.90	3.700	93.98	3.856	97.94
37/74*	3.600	91.44	3.800	96.52	3.956	100.48
38/76*	3.700	93.98	3.900	99.06	4.056	103.02
39/78*	3.800	96.52	4.000	101.60	4.156	105.56
40/80	3.900	99.06	4.100	104.14	4.256	108.10
41/82*	4.000	101.60	4.200	106.68	4.356	110.64
42/84*	4.100	104.14	4.300	109.22	4.456	113.18
43/86	4.200	106.68	4.400	111.76	4.556	115.72
44/88	4.300	109.22	4.500	114.30	4.656	118.26
45/90*	4.400	111.76	4.600	116.84	4.756	120.80
46/92*	4.500	114.30	4.700	119.38	4.856	123.34
47/94*	4.600	116.84	4.800	121.92	4.956	125.88
48/96*	4.700	119.38	4.900	124.46	5.056	128.42
49/98*	4.800	121.92	5.000	127.00	5.156	130.96
50/100	4.900	124.46	5.100	129.54	5.256	133.50
51/102*	5.000	127.00	5.200	132.08	5.356	136.04
52/104*	5.100	129.54	5.300	134.62	5.456	138.58
53/106*	5.200	132.08	5.400	137.16	5.556	141.12
54/108*	5.300	134.62	5.500	139.70	5.656	143.66
55/110	5.400	137.16	5.600	142.24	5.756	146.20
56/112*	5.500	139.70	5.700	144.78	5.856	148.74
57/114*	5.600	142.24	5.800	147.32	5.956	151.28
58/116*	5.700	144.78	5.900	149.86	6.056	153.82
59/118*	5.800	147.32	6.000	152.40	6.156	156.36
60/120	5.900	149.86	6.100	154.94	6.256	158.90

* Consult factory for availability.

.156" [3.96 mm] Contact Centers, .550" [13.97 mm] or .610" [15.49 mm] Profile, Press Fit

SPECIFICATIONS

- Designed to meet specifications of Bellcore specification TR-TSY-00078.
- Flat rock installation eliminates the need for any special installation tool.
- Integrally molded scoops available to assist daughter card entry.
- Molded-in key available



FEATURES

COMPLIANT SECTION INSERTION FORCE
40 lbs maximum per contact

COMPLIANT SECTION WITHDRAWAL FORCE
10 lbs minimum per contact

HOLE SIZE REQUIREMENTS
Drilled Hole Diameter: .0453" ± .0010" [1.150 mm ± 0.025 mm]
Plating: .001" [0.03 mm] to .003" [0.08 mm] Copper and .0003" [0.008 mm] Minimum Tin

FINISHED HOLE DIAMETER
.040" ± .003" [1.02 mm ± 0.08 mm]

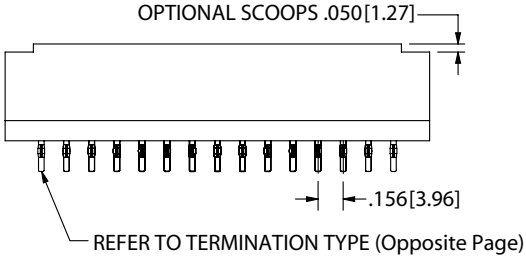
SUITABLE FOR .062" [1.57 mm] DAUGHTER CARD

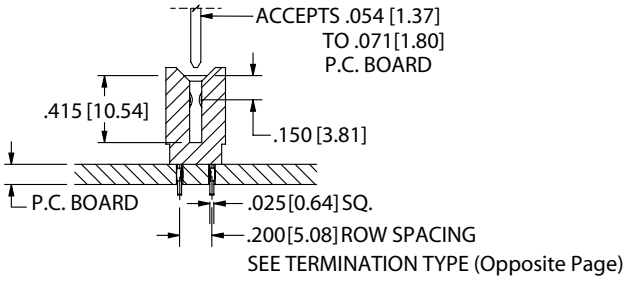
RECOMMENDED MOTHERBOARD THICKNESS
.093" to .125" [2.36 mm to 3.18 mm]

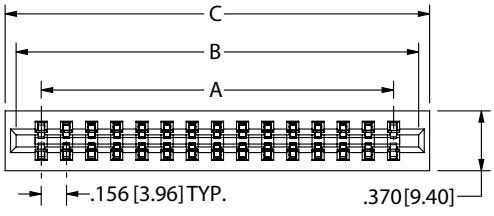
UL-CUL RECOGNIZED

DIMENSIONS

Dimensions in [ ] are in millimeters, all others are in inches.







-S1136 (WITH SCOOPS) SHOWN ABOVE

STANDOFFS VIEWS WITH NO SCOOPS SHOWN

.156" [3.96 mm] Contact Centers, .550" [13.97 mm] or .610" [15.49 mm] Profile, Press Fit

PART NUMBER OPTIONS

E C M 43 D JB N - Sxxx

MATERIALS (INSULATOR/CONTACT)
E = PBT/Phosphor Bronze
Refer to Page 7 for Operating/Processing Temperatures

CONTACT FINISH - RoHS Compliant
All platings are Lead Free and have .000050" Nickel underplate

Contact Surface	Termination
C = .000030" Gold	.000100" Pure Tin, Matte

CONTACT CENTERS
M = .156" [3.96 mm]

NUMBER OF CONTACT POSITIONS
See Chart Below

READOUT
D = Dual

MODIFICATIONS (Consult Factory)
OMIT FOR STANDARD
Special Number assigned for specials such as:
- Scoops (-S1136)
- Other Card Slot Depths

MOUNTING STYLE
N = No Mounting

TERMINATION TYPE

Standoffs	*Row Spacing*	*Tail Length*
JB = No*	.200" [5.08 mm]	.190" [4.83 mm]
JC = No*	.200" [5.08 mm]	.625" [15.88 mm]
JW = Yes	.200" [5.08 mm]	.190" [4.83 mm]
JX = Yes	.200" [5.08 mm]	.565" [14.35 mm]

* Consult factory for availability.

POSITIONS/ CONTACTS	A±.008[0.20]		B±.008[0.20]		C±.015[0.38]	
	in	mm	in	mm	in	mm
05/10*	0.624	15.85	0.944	23.98	1.072	27.23
06/12*	0.780	19.81	1.100	27.94	1.228	31.19
07/14*	0.936	23.77	1.256	31.90	1.384	35.15
08/16	1.092	27.74	1.412	35.86	1.540	39.12
09/18*	1.248	31.70	1.568	39.83	1.696	43.08
10/20	1.404	35.66	1.724	43.79	1.852	47.04
11/22*	1.560	39.62	1.880	47.75	2.008	51.00
12/24*	1.716	43.59	2.036	51.71	2.164	54.97
13/26*	1.872	47.55	2.192	55.68	2.320	58.93
14/28*	2.028	51.51	2.348	59.64	2.476	62.89
15/30*	2.184	55.47	2.504	63.60	2.632	66.85
16/32*	2.340	59.44	2.660	67.56	2.788	70.82
17/34*	2.496	63.40	2.816	71.53	2.944	74.78
18/36*	2.652	67.36	2.972	75.49	3.100	78.74
19/38*	2.808	71.32	3.128	79.45	3.256	82.70
20/40*	2.964	75.29	3.284	83.41	3.412	86.66
21/42*	3.120	79.25	3.440	87.38	3.568	90.63
22/44	3.276	83.21	3.596	91.34	3.724	94.59

POSITIONS/ CONTACTS	A±.008[0.20]		B±.008[0.20]		C±.015[0.38]	
	in	mm	in	mm	in	mm
23/46*	3.432	87.17	3.752	95.30	3.880	98.55
24/48*	3.588	91.14	3.908	99.26	4.036	102.51
25/50*	3.744	95.10	4.064	103.23	4.192	106.48
26/52*	3.900	99.06	4.220	107.19	4.348	110.44
27/54*	4.056	103.02	4.376	111.15	4.504	114.40
28/56	4.212	106.98	4.532	115.11	4.660	118.36
29/58*	4.368	110.95	4.688	119.08	4.816	122.33
30/60*	4.524	114.91	4.844	123.04	4.972	126.29
31/62*	4.680	118.87	5.000	127.00	5.128	130.25
32/64*	4.836	122.83	5.156	130.96	5.284	134.21
33/66*	4.992	126.80	5.312	134.92	5.440	138.18
34/68*	5.148	130.76	5.468	138.89	5.596	142.14
35/70*	5.304	134.72	5.624	142.85	5.752	146.10
36/72*	5.460	138.68	5.780	146.81	5.908	150.06
37/74*	5.616	142.65	5.936	150.77	6.064	154.03
38/76*	5.772	146.61	6.092	154.74	6.220	157.99
39/78*	5.928	150.57	6.248	158.70	6.376	161.95

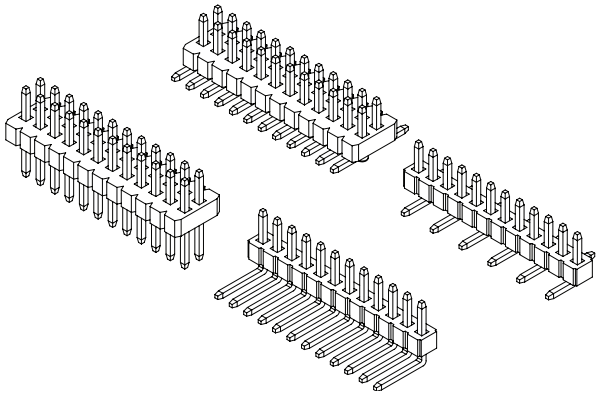
* Consult factory for availability.

SULLINS

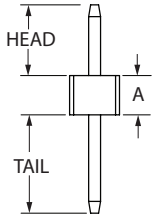
1.00 mm [.039”] Contact Centers, Male Headers, Straight/Right Angle/SMT-SMH Series Mates with SFM series

SPECIFICATIONS

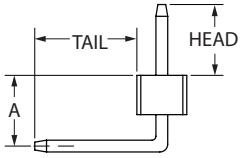
- 1 Amp current rating
- UL Flammability Rating: 94V-0
- Insulator Material: Black LCP
- Contact Material: Phosphor Bronze
- Insulation Resistance: 1000 Megohms Min.
- Contact Resistance: 20 milli Ohms Max.
- Dielectric Withstanding: 300 VAC
- Operating Temperature: -40°C to +125°C
- Processing Temperature: 260°C Max. for 10 seconds
- Stacker Options available - Consult factory



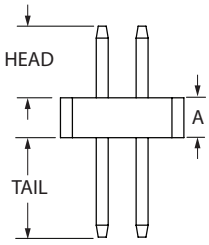
TERMINATION TYPE



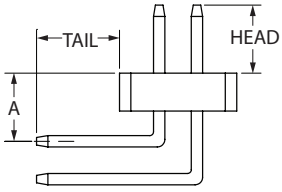
Straight, (ST)



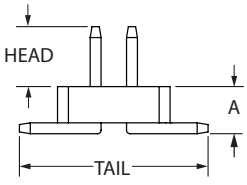
Right Angle, (RA)



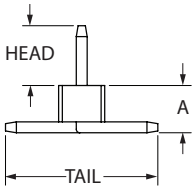
Straight, (ST)



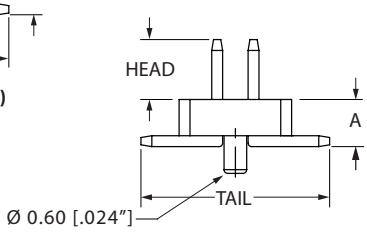
Right Angle, (RA)



SMT Without Guide Posts, (SM)



SMT, (SC) or (SD)



SMT With Guide Posts, (SP)

SINGLE ROW

EXAMPLE P/N	HEAD	TAIL	A
STRAIGHT TERMINATION			
SMH100-LPPE-S10-ST-BK	1.80 [.071”]	2.50 [.098”]	1.00 [.039”]
RIGHT ANGLE TERMINATION			
SMH100-LPPE-S10-RA-BK	1.80 [.071”]	2.60 [.102”]	1.80 [.071”]

DUAL ROW

EXAMPLE P/N	HEAD	TAIL	A
STRAIGHT TERMINATIONS			
SMH100-LPPE-D10-ST-BK	1.80 [.071”]	2.50 [.098”]	1.00 [.039”]
SMH150-LPPE-D10-ST-BK	1.80 [.071”]	2.50 [.098”]	1.50 [.059”]
RIGHT ANGLE TERMINATION			
SMH100-LPPE-D10-RA-BK	1.80 [.071”]	2.60 [.102”]	1.80 [.071”]

SURFACE MOUNT TERMINATIONS

EXAMPLE P/N	HEAD	TAIL	A
SINGLE ROW			
SMH100-LPPE-S10-SC-BK	1.65 [.065”]	4.20 [.165”]	1.30 [.051”]
SMH100-LPPE-S10-SD-BK	1.65 [.065”]	4.20 [.165”]	1.30 [.051”]
DUAL ROW			
SMH101-LPPE-D10-SM-BK	1.65 [.065”]	5.20 [.205”]	1.30 [.051”]
SMH101-LPPE-D10-SP-BK	1.65 [.065”]	5.20 [.205”]	1.30 [.051”]
SMH102-LPPE-D10-SM-BK	1.90 [.075”]	5.20 [.205”]	1.30 [.051”]
SMH102-LPPE-D10-SP-BK	1.90 [.075”]	5.20 [.205”]	1.30 [.051”]
SMH103-LPPE-D10-SM-BK	3.53 [.139”]	5.20 [.205”]	1.30 [.051”]
SMH103-LPPE-D10-SP-BK	3.53 [.139”]	5.20 [.205”]	1.30 [.051”]
SMH151-LPPE-D10-SM-BK	1.65 [.065”]	5.20 [.205”]	1.80 [.071”]
SMH151-LPPE-D10-SP-BK	1.65 [.065”]	5.20 [.205”]	1.80 [.071”]
SMH152-LPPE-D10-SM-BK	1.90 [.075”]	5.20 [.205”]	1.80 [.071”]
SMH152-LPPE-D10-SP-BK	1.90 [.075”]	5.20 [.205”]	1.80 [.071”]

1.00 mm [.039”] Contact Centers, Male Headers, Straight/Right Angle/SMT-SMH Series
Mates with SFM series

PART NUMBER OPTIONS

SMH100 - L P P E - S 10 - ST - BK

SERIES (See Opposite Page)
- SMH100 = 1.00 [.039”] Profile, 1.80 [.071”] Head Height
- SMH101 = 1.00 [.039”] Profile, 1.65 [.065”] Head Height
- SMH102 = 1.00 [.039”] Profile, 1.90 [.075”] Head Height
- SMH103 = 1.00 [.039”] Profile, 3.53 [.139”] Head Height
- SMH150 = 1.50 [.059”] Profile, 1.80 [.071”] Head Height
- SMH151 = 1.50 [.059”] Profile, 1.65 [.065”] Head Height
- SMH152 = 1.50 [.059”] Profile, 1.90 [.075”] Head Height

INSULATOR MATERIAL
- L = LCP

CONTACT MATERIAL
- P = Phosphor Bronze

CONTACT FINISH - RoHS Compliant
- P = Gold Flash Overall
- S = .000010” Gold on Contact Surface, Gold Flash on Termination

CONTACT CENTERS
- E = 1.00 mm [.039”]

COLOR
- BK = Black

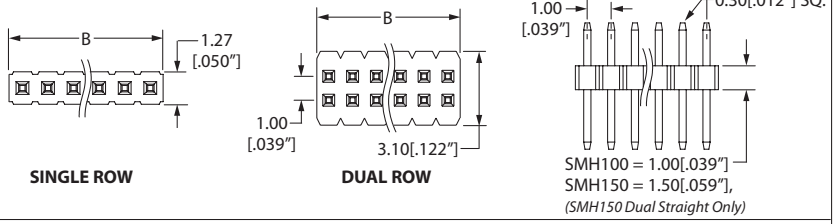
TERMINATION TYPE (See Opposite Page)
- ST = Straight (Single & Dual Row)
- RA = Right Angle (Single & Dual Row)
- SC = Surface Mount, Standard (Single Row)
- SD = Surface Mount, Opposite Bend, Applicable on Even Pin Counts (Single Row)
- SM = Surface Mount without Guide Posts (Dual Row)
- SP = Surface Mount with Guide Posts (Dual Row)

NUMBER OF CONTACT POSITIONS (Pins per Row)
- 02 thru 50

NUMBER OF ROWS
- S = Single Row
- D = Dual Row

DIMENSIONS

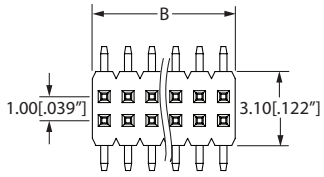
STRAIGHT (SHOWN) & RIGHT ANGLE



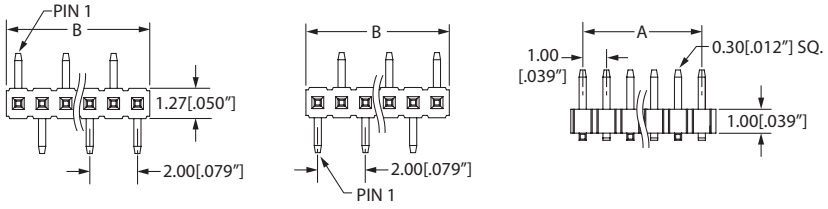
SINGLE ROW

DUAL ROW

SURFACE MOUNT, DUAL ROW

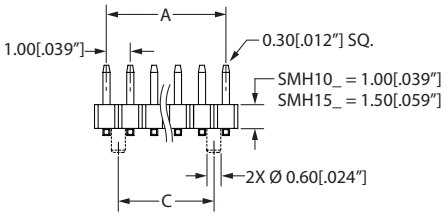


SURFACE MOUNT, SINGLE ROW



(SC)
STANDARD

(SD)
OPPOSITE BEND,
APPLICABLE ON EVEN PIN COUNTS



OPTIONAL GUIDE POSTS
REQUIRES (SP) TERMINATION TYPE

POSI-TIONS	NUMBER OF CONTACTS SINGLE/DUAL	A		B		C	
		mm	in	mm	in	mm	in
02*	02/04	1.00	0.039	2.00	0.079	N/A	N/A
03	03/06	2.00	0.079	3.00	0.118	1.00	0.039
04	04/08	3.00	0.118	4.00	0.157	2.00	0.079
05	05/10	4.00	0.157	5.00	0.197	3.00	0.118
06	06/12	5.00	0.197	6.00	0.236	4.00	0.157
07	07/14	6.00	0.236	7.00	0.276	5.00	0.197
08	08/16	7.00	0.276	8.00	0.315	6.00	0.236
09	09/18	8.00	0.315	9.00	0.354	7.00	0.276
10	10/20	9.00	0.354	10.00	0.394	8.00	0.315
11	11/22	10.00	0.394	11.00	0.433	9.00	0.354
12	12/24	11.00	0.433	12.00	0.472	10.00	0.394
13	13/26	12.00	0.472	13.00	0.512	11.00	0.433
14	14/28	13.00	0.512	14.00	0.551	12.00	0.472
15	15/30	14.00	0.551	15.00	0.591	13.00	0.512
16	16/32	15.00	0.591	16.00	0.630	14.00	0.551
17	17/34	16.00	0.630	17.00	0.669	15.00	0.591
18	18/36	17.00	0.669	18.00	0.709	16.00	0.630
19	19/38	18.00	0.709	19.00	0.748	17.00	0.669
20	20/40	19.00	0.748	20.00	0.787	18.00	0.709
21	21/42	20.00	0.787	21.00	0.827	19.00	0.748
22	22/44	21.00	0.827	22.00	0.866	20.00	0.787
23	23/46	22.00	0.866	23.00	0.906	21.00	0.827
24	24/48	23.00	0.906	24.00	0.945	22.00	0.866
25	25/50	24.00	0.945	25.00	0.984	23.00	0.906
26	26/52	25.00	0.984	26.00	1.024	24.00	0.945

POSI-TIONS	NUMBER OF CONTACTS SINGLE/DUAL	A		B		C	
		mm	in	mm	in	mm	in
27	27/54	26.00	1.024	27.00	1.063	25.00	0.984
28	28/56	27.00	1.063	28.00	1.102	26.00	1.024
29	29/58	28.00	1.102	29.00	1.142	27.00	1.063
30	30/60	29.00	1.142	30.00	1.181	28.00	1.102
31	31/62	30.00	1.181	31.00	1.220	29.00	1.142
32	32/64	31.00	1.220	32.00	1.260	30.00	1.181
33	33/66	32.00	1.260	33.00	1.299	31.00	1.220
34	34/68	33.00	1.299	34.00	1.339	32.00	1.260
35	35/70	34.00	1.339	35.00	1.378	33.00	1.299
36	36/72	35.00	1.378	36.00	1.417	34.00	1.339
37	37/74	36.00	1.417	37.00	1.457	35.00	1.378
38	38/76	37.00	1.457	38.00	1.496	36.00	1.417
39	39/78	38.00	1.496	39.00	1.535	37.00	1.457
40	40/80	39.00	1.535	40.00	1.575	38.00	1.496
41	41/82	40.00	1.575	41.00	1.614	39.00	1.535
42	42/84	41.00	1.614	42.00	1.654	40.00	1.575
43	43/86	42.00	1.654	43.00	1.693	41.00	1.614
44	44/88	43.00	1.693	44.00	1.732	42.00	1.654
45	45/90	44.00	1.732	45.00	1.772	43.00	1.693
46	46/92	45.00	1.772	46.00	1.811	44.00	1.732
47	47/94	46.00	1.811	47.00	1.850	45.00	1.772
48	48/96	47.00	1.850	48.00	1.890	46.00	1.811
49	49/98	48.00	1.890	49.00	1.929	47.00	1.850
50	50/100	49.00	1.929	50.00	1.969	48.00	1.890

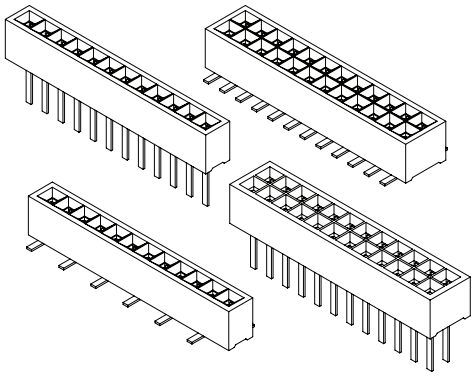
* Position 2 not available with guide posts.

SULLINS

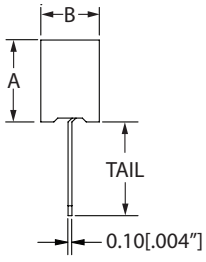
1.00 mm [.039”] Contact Centers, Female Headers, Straight/SMT- SFM Series
Mates with SMH series

SPECIFICATIONS

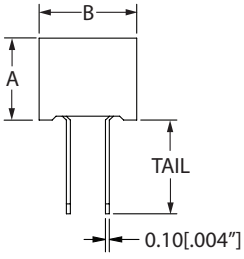
- 1 Amp current rating
- UL Flammability Rating: 94V-0
- Insulator Material: Black LCP
- Contact Material: Phosphor Bronze
- Contact Resistance: 20 milli Ohms Max.
- Operating Temperature: -40°C to +125°C
- Processing Temperature: 260°C Max. for 10 seconds



TERMINATION TYPE



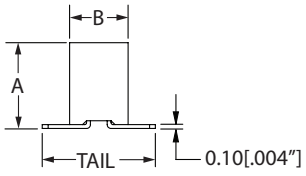
Single Row, Straight, (ST)



Dual Row, Straight, (ST)

STRAIGHT

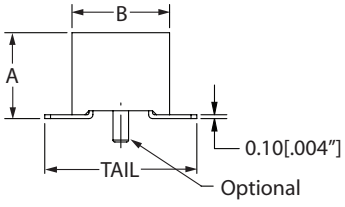
EXAMPLE P/N	A	B	TAIL
SINGLE ROW			
SFM210-LPPE-S10-ST-BK	2.10 [.083”]	1.50 [.059”]	2.40 [.094”]
DUAL ROW			
SFM210-LPPE-D10-ST-BK	2.10 [.083”]	2.50 [.098”]	2.40 [.094”]



Single Row, SMT, Pin 1 Left (SC) or SMT, Pin 1 Right (SD)

SURFACE MOUNT

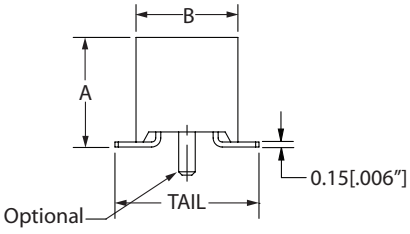
EXAMPLE P/N	A	B	TAIL
SINGLE ROW			
SFM210-LPPE-S10-SC-BK	2.20 [.087”]	1.50 [.059”]	2.90 [.114”]
SFM210-LPPE-S10-SD-BK	2.20 [.087”]	1.50 [.059”]	2.90 [.114”]



SFM210-, Dual Row, SMT Without Guide Posts (SM) or SMT With Guide Posts (SP)

SURFACE MOUNT

EXAMPLE P/N	A	B	TAIL
DUAL ROW			
SFM210-LPPE-D10-SM-BK	2.20 [.087”]	2.50 [.098”]	3.90 [.154”]
SFM210-LPPE-D10-SP-BK	2.20 [.087”]	2.50 [.098”]	3.90 [.154”]



SFM315-, Dual Row, SMT Without Guide Posts (SM) or SMT With Guide Posts (SP)

SURFACE MOUNT

EXAMPLE P/N	A	B	TAIL
DUAL ROW			
SFM315-LPPE-D10-SM-BK	3.30 [.130”]	3.07 [.121”]	4.34 [.171”]
SFM315-LPPE-D10-SP-BK	3.30 [.130”]	3.07 [.121”]	4.34 [.171”]

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1.00 mm [.039”] Contact Centers, Female Headers, Straight/SMT- SFM Series
Mates with SMH series

PART NUMBER OPTIONS

SFM210 - L P P E - S 10 - ST - BK

SERIES (See Opposite Page)
SFM210 = 2.10 mm [.083”] Profile
SFM315 = 3.15 mm [.124”] Profile

INSULATOR MATERIAL
L = LCP

CONTACT MATERIAL
P = Phosphor Bronze

CONTACT FINISH - RoHS Compliant
P = Gold Flash Overall
S = .000010” Gold on Contact Surface, Gold Flash on Termination, (SFM 210 series)
G = .000010” Gold on Contact Surface, Gold Flash on Termination, (SFM315 series)

CONTACT CENTERS
E = 1.00 mm [.039”]

COLOR
BK = Black

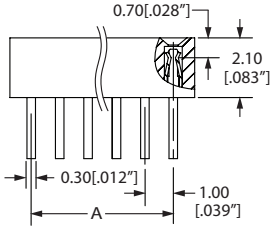
TERMINATION TYPE (See Opposite Page)
ST = Straight (Single & Dual Row)
SC = Surface Mount, Standard (Single Row)
SD = Surface Mount, Opposite Bend, Applicable on Even Pin Counts (Single Row)
SM = Surface Mount without Guide Posts (Dual Row)
SP = Surface Mount with Guide Posts (Dual Row)

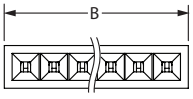
NUMBER OF CONTACT POSITIONS (Pins per Row)
02 thru 50

NUMBER OF ROWS
S = Single Row
D = Dual Row

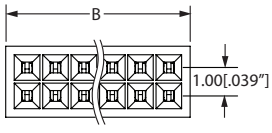
DIMENSIONS

STRAIGHT



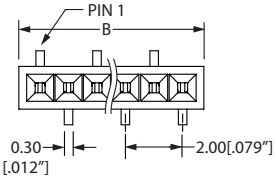


SINGLE ROW

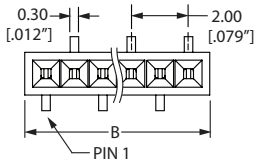


DUAL ROW

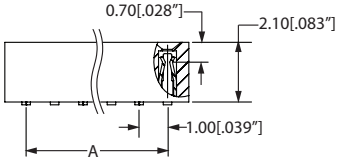
Surface Mount Top/Bottom Entry, Single Row



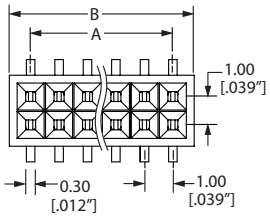
(SC) STANDARD

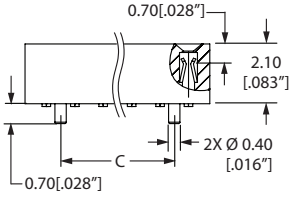


(SD) OPPOSITE BEND, APPLICABLE ON EVEN PIN COUNTS

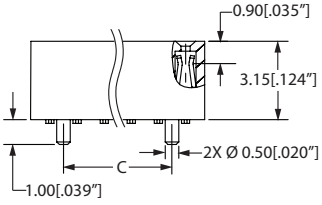


Surface Mount Top/Bottom Entry, Dual Row





SFM210-



SFM315-

OPTIONAL GUIDE POSTS REQUIRE (SP) TERMINATION TYPE

NUMBER OF CONTACTS SINGLE/ DUAL	A		B (SFM210)		B (SFM315)		C	
	mm	in	mm	in	mm	in	mm	in
02/04*	1.00	0.039	2.50	0.098	2.40	0.094	N/A	N/A
03/06	2.00	0.079	3.50	0.138	3.40	0.134	1.00	0.039
04/08	3.00	0.118	4.50	0.177	4.40	0.173	2.00	0.079
05/10	4.00	0.157	5.50	0.217	5.40	0.213	3.00	0.118
06/12	5.00	0.197	6.50	0.256	6.40	0.252	4.00	0.157
07/14	6.00	0.236	7.50	0.295	7.40	0.291	5.00	0.197
08/16	7.00	0.276	8.50	0.335	8.40	0.331	6.00	0.236
09/18	8.00	0.315	9.50	0.374	9.40	0.370	7.00	0.276
10/20	9.00	0.354	10.50	0.413	10.40	0.409	8.00	0.315
11/22	10.00	0.394	11.50	0.453	11.40	0.449	9.00	0.354
12/24	11.00	0.433	12.50	0.492	12.40	0.488	10.00	0.394
13/26	12.00	0.472	13.50	0.531	13.40	0.528	11.00	0.433
14/28	13.00	0.512	14.50	0.571	14.40	0.567	12.00	0.472
15/30	14.00	0.551	15.50	0.610	15.40	0.606	13.00	0.512
16/32	15.00	0.591	16.50	0.650	16.40	0.646	14.00	0.551
17/34	16.00	0.630	17.50	0.689	17.40	0.685	15.00	0.591
18/36	17.00	0.669	18.50	0.728	18.40	0.724	16.00	0.630
19/38	18.00	0.709	19.50	0.768	19.40	0.764	17.00	0.669
20/40	19.00	0.748	20.50	0.807	20.40	0.803	18.00	0.709
21/42	20.00	0.787	21.50	0.846	21.40	0.843	19.00	0.748
22/44	21.00	0.827	22.50	0.886	22.40	0.882	20.00	0.787
23/46	22.00	0.866	23.50	0.925	23.40	0.921	21.00	0.827
24/48	23.00	0.906	24.50	0.965	24.40	0.961	22.00	0.866
25/50	24.00	0.945	25.50	1.004	25.40	1.000	23.00	0.906
26/52	25.00	0.984	26.50	1.043	26.40	1.039	24.00	0.945

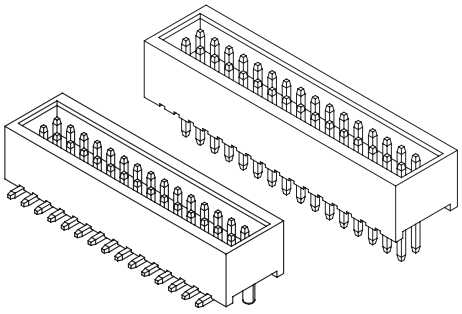
NUMBER OF CONTACTS SINGLE/ DUAL	A		B(SFM210)		B (SFM315)		C	
	mm	in	mm	in	mm	in	mm	in
27/54	26.00	1.024	27.50	1.083	27.40	1.079	25.00	0.984
28/56	27.00	1.063	28.50	1.122	28.40	1.118	26.00	1.024
29/58	28.00	1.102	29.50	1.161	29.40	1.157	27.00	1.063
30/60	29.00	1.142	30.50	1.201	30.40	1.197	28.00	1.102
31/62	30.00	1.181	31.50	1.240	31.40	1.236	29.00	1.142
32/64	31.00	1.220	32.50	1.280	32.40	1.276	30.00	1.181
33/66	32.00	1.260	33.50	1.319	33.40	1.315	31.00	1.220
34/68	33.00	1.299	34.50	1.358	34.40	1.354	32.00	1.260
35/70	34.00	1.339	35.50	1.398	35.40	1.394	33.00	1.299
36/72	35.00	1.378	36.50	1.437	36.40	1.433	34.00	1.339
37/74	36.00	1.417	37.50	1.476	37.40	1.472	35.00	1.378
38/76	37.00	1.457	38.50	1.516	38.40	1.512	36.00	1.417
39/78	38.00	1.496	39.50	1.555	39.40	1.551	37.00	1.457
40/80	39.00	1.535	40.50	1.594	40.40	1.591	38.00	1.496
41/82	40.00	1.575	41.50	1.634	41.40	1.630	39.00	1.535
42/84	41.00	1.614	42.50	1.673	42.40	1.669	40.00	1.575
43/86	42.00	1.654	43.50	1.713	43.40	1.709	41.00	1.614
44/88	43.00	1.693	44.50	1.752	44.40	1.748	42.00	1.654
45/90	44.00	1.732	45.50	1.791	45.40	1.787	43.00	1.693
46/92	45.00	1.772	46.50	1.831	46.40	1.827	44.00	1.732
47/94	46.00	1.811	47.50	1.870	47.40	1.866	45.00	1.772
48/96	47.00	1.850	48.50	1.909	48.40	1.906	46.00	1.811
49/98	48.00	1.890	49.50	1.949	49.40	1.945	47.00	1.850
50/100	49.00	1.929	50.50	1.988	50.40	1.984	48.00	1.890

* Position 2 not available with guide posts on SFM210 Series (Termination Type SP).

1.00 mm [.039”] Contact Centers, Shrouded (Box) Headers Straight/SMT
Mates with SFM series

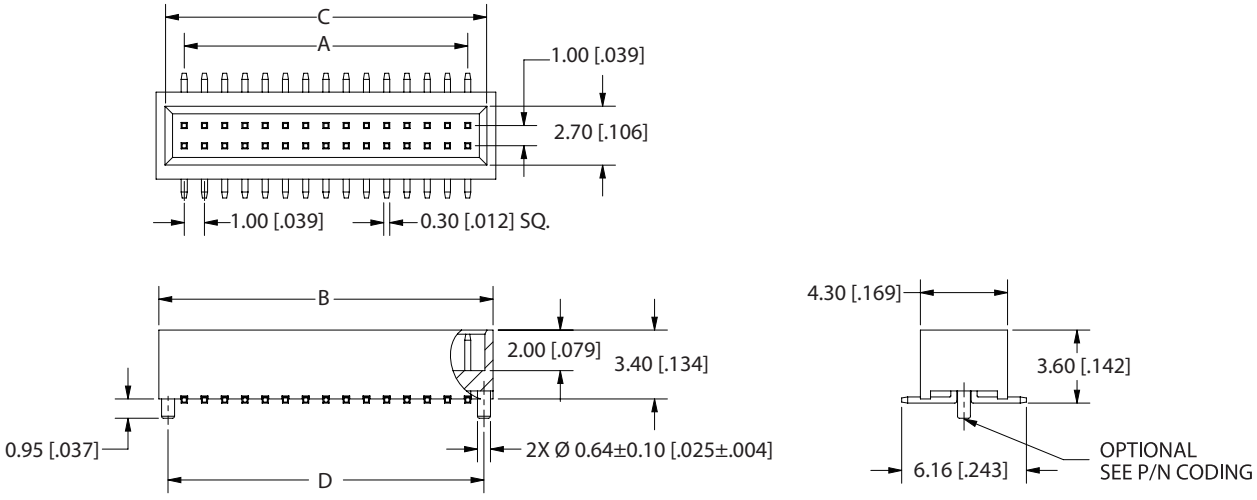
SPECIFICATIONS

- Insulator Material: LCP
- Contact Material: Phosphor Bronze
- Operating Temperature: -40°C to +125°C
- Processing Temperature: 230°C Max. for 60 seconds, (260°C Max. for 10 seconds)
- UL Flammability Rating: 94V-0
- Contact Resistance: 20 milli Ohms Max.
- Current Rating: 1 Amp
- Dielectric Withstanding Voltage: 300 VAC
- Insulation Resistance: 1000 Megohms Min.

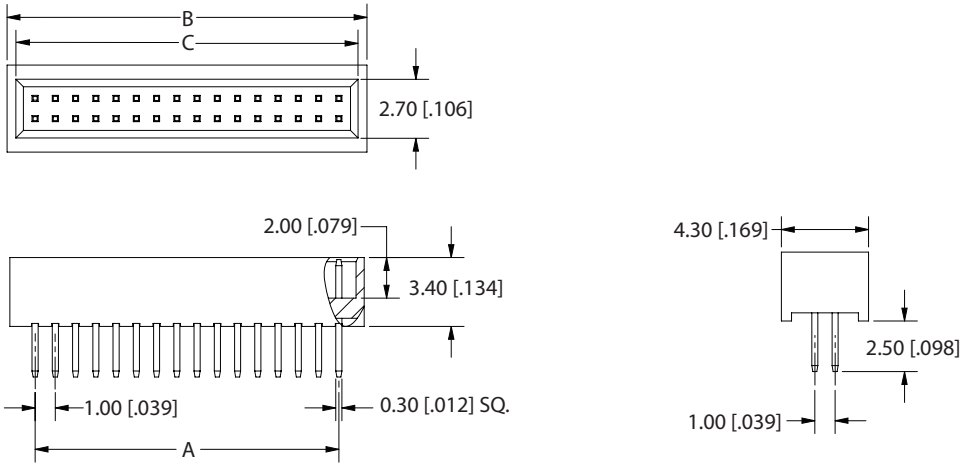


DIMENSIONS **For complete drawings, go to www.sullinscorp.com or e-mail techsupport@sullinscorp.com**
Dimensions in [ ] are in inches, all others are in millimeters.

SURFACE MOUNT (SP or SM)



STRAIGHT (ST)



1.00 mm [.039”] Contact Centers, Shrouded (Box) Headers, Straight/SMT
Mates with SFM series

PART NUMBER OPTIONS

SBH51 - L P P E - D 03 - ST - BK

SERIES (See Opposite Page)
SBH51 = Box Header

INSULATOR MATERIAL
L = LCP

CONTACT MATERIAL
P = Phosphor Bronze

CONTACT FINISH - RoHS Compliant
P = Gold Flash Overall
S = .000010” Gold on Contact Surface, Gold Flash on Termination

CONTACT CENTERS
E = 1.00 mm [.039”]

COLOR
BK = Black

TERMINATION TYPE (See Opposite Page)
ST = Straight
SM = Surface Mount without Guide Posts
SP = Surface Mount with Guide Posts

NUMBER OF CONTACT POSITIONS (Pins per Row)
03 thru 50

NUMBER OF ROWS
D = Dual Row

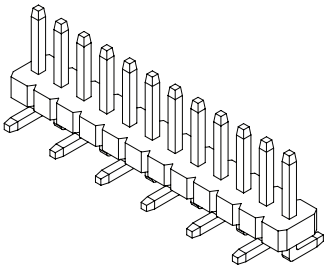
PART NUMBER	POSITIONS/ CONTACTS	A		B		C		D	
		mm	in	mm	in	mm	in	mm	in
SBH51-LP_E-D03-_ _-BK	03/06	2.00	0.079	4.50	0.177	3.70	0.146	3.60	0.142
SBH51-LP_E-D04-_ _-BK	04/08	3.00	0.118	5.50	0.217	4.70	0.185	4.60	0.181
SBH51-LP_E-D05-_ _-BK	05/10	4.00	0.157	6.50	0.256	5.70	0.224	5.60	0.220
SBH51-LP_E-D06-_ _-BK	06/12	5.00	0.197	7.50	0.295	6.70	0.264	6.60	0.260
SBH51-LP_E-D07-_ _-BK	07/14	6.00	0.236	8.50	0.335	7.70	0.303	7.60	0.299
SBH51-LP_E-D08-_ _-BK	08/16	7.00	0.276	9.50	0.374	8.70	0.343	8.60	0.339
SBH51-LP_E-D09-_ _-BK	09/18	8.00	0.315	10.50	0.413	9.70	0.382	9.60	0.378
SBH51-LP_E-D10-_ _-BK	10/20	9.00	0.354	11.50	0.453	10.70	0.421	10.60	0.417
SBH51-LP_E-D11-_ _-BK	11/22	10.00	0.394	12.50	0.492	11.70	0.461	11.60	0.457
SBH51-LP_E-D12-_ _-BK	12/24	11.00	0.433	13.50	0.531	12.70	0.500	12.60	0.496
SBH51-LP_E-D13-_ _-BK	13/26	12.00	0.472	14.50	0.571	13.70	0.539	13.60	0.535
SBH51-LP_E-D14-_ _-BK	14/28	13.00	0.512	15.50	0.610	14.70	0.579	14.60	0.575
SBH51-LP_E-D15-_ _-BK	15/30	14.00	0.551	16.50	0.650	15.70	0.618	15.60	0.614
SBH51-LP_E-D16-_ _-BK	16/32	15.00	0.591	17.50	0.689	16.70	0.657	16.60	0.654
SBH51-LP_E-D17-_ _-BK	17/34	16.00	0.630	18.50	0.728	17.70	0.697	17.60	0.693
SBH51-LP_E-D18-_ _-BK	18/36	17.00	0.669	19.50	0.768	18.70	0.736	18.60	0.732
SBH51-LP_E-D19-_ _-BK	19/38	18.00	0.709	20.50	0.807	19.70	0.776	19.60	0.772
SBH51-LP_E-D20-_ _-BK	20/40	19.00	0.748	21.50	0.846	20.70	0.815	20.60	0.811
SBH51-LP_E-D21-_ _-BK	21/42	20.00	0.787	22.50	0.886	21.70	0.854	21.60	0.850
SBH51-LP_E-D22-_ _-BK	22/44	21.00	0.827	23.50	0.925	22.70	0.894	22.60	0.890
SBH51-LP_E-D23-_ _-BK	23/46	22.00	0.866	24.50	0.965	23.70	0.933	23.60	0.929
SBH51-LP_E-D24-_ _-BK	24/48	23.00	0.906	25.50	1.004	24.70	0.972	24.60	0.969
SBH51-LP_E-D25-_ _-BK	25/50	24.00	0.945	26.50	1.043	25.70	1.012	25.60	1.008
SBH51-LP_E-D26-_ _-BK	26/52	25.00	0.984	27.50	1.083	26.70	1.051	26.60	1.047
SBH51-LP_E-D27-_ _-BK	27/54	26.00	1.024	28.50	1.122	27.70	1.091	27.60	1.087
SBH51-LP_E-D28-_ _-BK	28/56	27.00	1.063	29.50	1.161	28.70	1.130	28.60	1.126
SBH51-LP_E-D29-_ _-BK	29/58	28.00	1.102	30.50	1.201	29.70	1.169	29.60	1.165
SBH51-LP_E-D30-_ _-BK	30/60	29.00	1.142	31.50	1.240	30.70	1.209	30.60	1.205
SBH51-LP_E-D31-_ _-BK	31/62	30.00	1.181	32.50	1.280	31.70	1.248	31.60	1.244
SBH51-LP_E-D32-_ _-BK	32/64	31.00	1.220	33.50	1.319	32.70	1.287	32.60	1.283
SBH51-LP_E-D33-_ _-BK	33/66	32.00	1.260	34.50	1.358	33.70	1.327	33.60	1.323
SBH51-LP_E-D34-_ _-BK	34/68	33.00	1.299	35.50	1.398	34.70	1.366	34.60	1.362
SBH51-LP_E-D35-_ _-BK	35/70	34.00	1.339	36.50	1.437	35.70	1.406	35.60	1.402
SBH51-LP_E-D36-_ _-BK	36/72	35.00	1.378	37.50	1.476	36.70	1.445	36.60	1.441
SBH51-LP_E-D37-_ _-BK	37/74	36.00	1.417	38.50	1.516	37.70	1.484	37.60	1.480
SBH51-LP_E-D38-_ _-BK	38/76	37.00	1.457	39.50	1.555	38.70	1.524	38.60	1.520
SBH51-LP_E-D39-_ _-BK	39/78	38.00	1.496	40.50	1.594	39.70	1.563	39.60	1.559
SBH51-LP_E-D40-_ _-BK	40/80	39.00	1.535	41.50	1.634	40.70	1.602	40.60	1.598
SBH51-LP_E-D41-_ _-BK	41/82	40.00	1.575	42.50	1.673	41.70	1.642	41.60	1.638
SBH51-LP_E-D42-_ _-BK	42/84	41.00	1.614	43.50	1.713	42.70	1.681	42.60	1.677
SBH51-LP_E-D43-_ _-BK	43/86	42.00	1.654	44.50	1.752	43.70	1.720	43.60	1.717
SBH51-LP_E-D44-_ _-BK	44/88	43.00	1.693	45.50	1.791	44.70	1.760	44.60	1.756
SBH51-LP_E-D45-_ _-BK	45/90	44.00	1.732	46.50	1.831	45.70	1.799	45.60	1.795
SBH51-LP_E-D46-_ _-BK	46/92	45.00	1.772	47.50	1.870	46.70	1.839	46.60	1.835
SBH51-LP_E-D47-_ _-BK	47/94	46.00	1.811	48.50	1.909	47.70	1.878	47.60	1.874
SBH51-LP_E-D48-_ _-BK	48/96	47.00	1.850	49.50	1.949	48.70	1.917	48.60	1.913
SBH51-LP_E-D49-_ _-BK	49/98	48.00	1.890	50.50	1.988	49.70	1.957	49.60	1.953
SBH51-LP_E-D50-_ _-BK	50/100	49.00	1.929	51.50	2.028	50.70	1.996	50.60	1.992

SULLINS

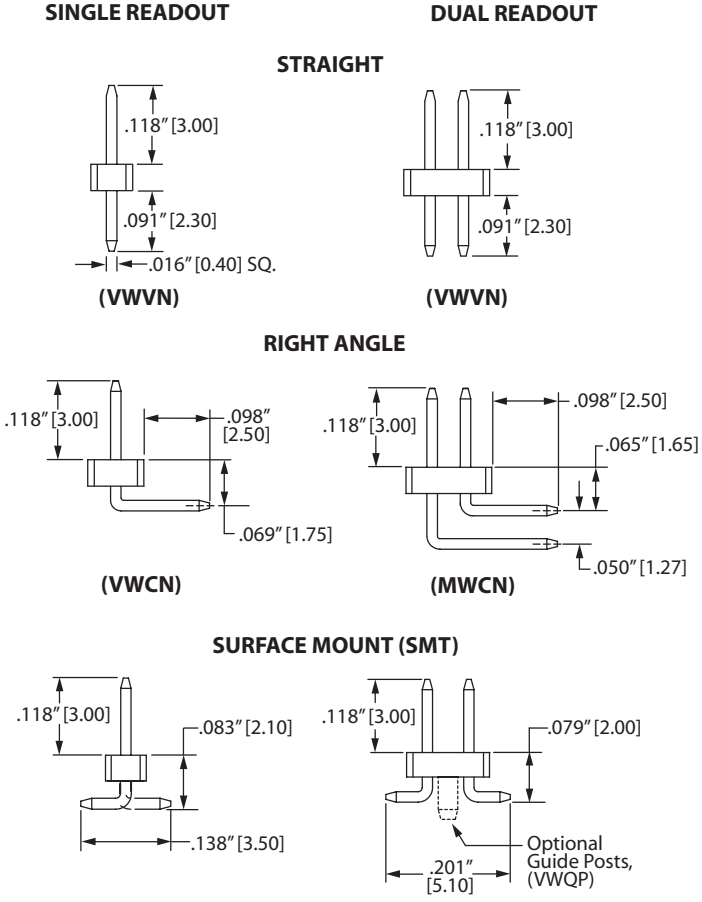
.050" [1.27 mm] Contact Centers, Male Headers, Straight/Right Angle/SMT

SPECIFICATIONS

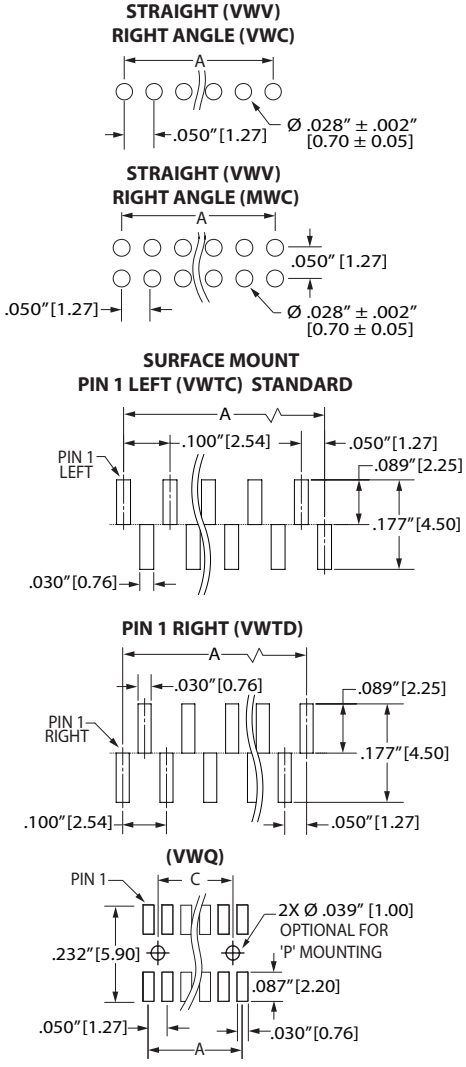
- Insulator Material: Nylon
- Contact Material: Brass
- Plating: Gold Flash Overall
- 1 Amp current rating
- UL Flammability Rating: 94V-0
- Stacker Options available - Consult factory



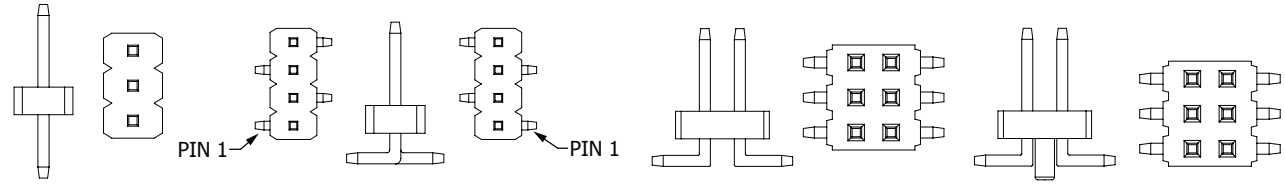
TERMINATION TYPE



PCB LAYOUT



MOUNTING STYLE



No Mounting, (N)

SMT, Pin 1 Left (C) Standard

SMT

SMT, Pin 1 Right (D) Only Even Positions

SMT, Without Guide Posts (S)

SMT, With Guide Posts (P)

.050" [1.27 mm] Contact Centers, Male Headers, Straight/Right Angle/SMT

PART NUMBER OPTIONS

G R P B xx 1 VWV N - RC

INSULATOR MATERIAL
G = Nylon

CONTACT MATERIAL
R = Brass

CONTACT FINISH - RoHS Compliant
P = Gold Flash Overall

CONTACT CENTERS
B = .050" [1.27 mm]

NUMBER OF POSITIONS

Positions Available	Termination
2 Thru 50	= VWC, VWQ, VWT, VWV
1 Thru 50	= MWC

RoHS COMPLIANT
Consult Factory For Modifications

MOUNTING STYLE
N = No Mounting
C = Surface Mount, Pin 1 Left (Single Row Only)
D = Surface Mount, Pin 1 Right (Single Row on Even Positions Only)
S = Surface Mount without Guide Pins (Dual Row Only)
P = Surface Mount with Guide Posts (Dual Row Only)

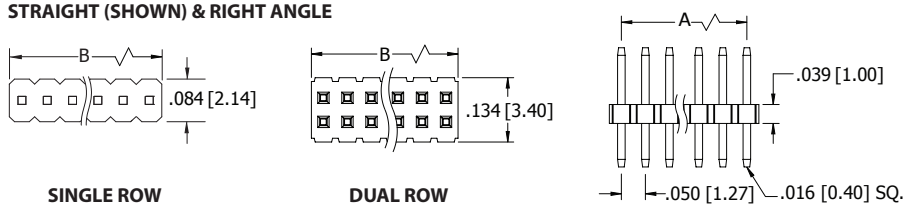
TERMINATION TYPE (Opposite Page)
VWV, VWC, MWC, VWT, VWQ

NUMBER OF ROWS
1 = Single Row
2 = Dual Row

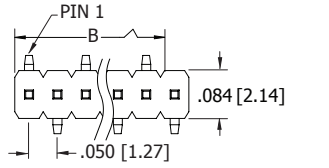
DIMENSIONS

Dimensions in [ ] are in millimeters, all others are in inches.

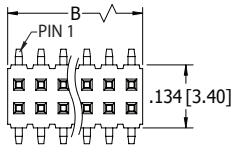
STRAIGHT (SHOWN) & RIGHT ANGLE



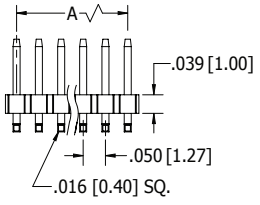
SURFACE MOUNT, PIN 1 LEFT, SINGLE ROW(SHOWN)



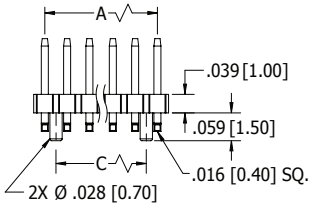
SURFACE MOUNT, DUAL ROW

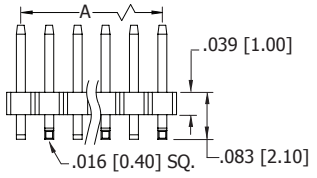


WITHOUT GUIDE POSTS, (VWQS)



WITH GUIDE POSTS, (VWQP)





POSI-TIONS	NUMBER OF CONTACTS SINGLE/DUAL	A		B		C	
		in	mm	in	mm	in	mm
01	01/02	N/A	N/A	.050	1.27	N/A	
02	02/04	.050	1.27	.100	2.54		
03	03/06	.100	2.54	.150	3.81	.050	1.27
04	04/08	.150	3.81	.200	5.08	.100	2.54
05	05/10	.200	5.08	.250	6.35	.150	3.81
06	06/12	.250	6.35	.300	7.62	.200	5.08
07	07/14	.300	7.62	.350	8.89	.250	6.35
08	08/16	.350	8.89	.400	10.16	.300	7.62
09	09/18	.400	10.16	.450	11.43	.350	8.89
10	10/20	.450	11.43	.500	12.70	.400	10.16
11	11/22	.500	12.70	.550	13.97	.450	11.43
12	12/24	.550	13.97	.600	15.24	.500	12.70
13	13/26	.600	15.24	.650	16.51	.550	13.97
14	14/28	.650	16.51	.700	17.78	.600	15.24
15	15/30	.700	17.78	.750	19.05	.650	16.51
16	16/32	.750	19.05	.800	20.32	.700	17.78
17	17/34	.800	20.32	.850	21.59	.750	19.05
18	18/36	.850	21.59	.900	22.86	.800	20.32
19	19/38	.900	22.86	.950	24.13	.850	21.59
20	20/40	.950	24.13	1.000	25.40	.900	22.86
21	21/42	1.000	25.40	1.050	26.67	.950	24.13
22	22/44	1.050	26.67	1.100	27.94	1.000	25.40
23	23/46	1.100	27.94	1.150	29.21	1.050	26.67
24	24/48	1.150	29.21	1.200	30.48	1.100	27.94
25	25/50	1.200	30.48	1.250	31.75	1.150	29.21

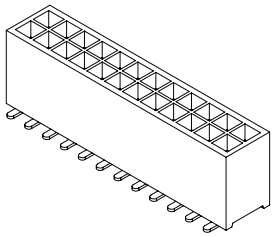
POSI-TIONS	NUMBER OF CONTACTS SINGLE/DUAL	A		B		C	
		in	mm	in	mm	in	mm
26	26/52	1.250	31.75	1.300	33.02	1.200	30.48
27	27/54	1.300	33.02	1.350	34.29	1.250	31.75
28	28/56	1.350	34.29	1.400	35.56	1.300	33.02
29	29/58	1.400	35.56	1.450	36.83	1.350	34.29
30	30/60	1.450	36.83	1.500	38.10	1.400	35.56
31	31/62	1.500	38.10	1.550	39.37	1.450	36.83
32	32/64	1.550	39.37	1.600	40.64	1.500	38.10
33	33/66	1.600	40.64	1.650	41.91	1.550	39.37
34	34/68	1.650	41.91	1.700	43.18	1.600	40.64
35	35/70	1.700	43.18	1.750	44.45	1.650	41.91
36	36/72	1.750	44.45	1.800	45.72	1.700	43.18
37	37/74	1.800	45.72	1.850	46.99	1.750	44.45
38	38/76	1.850	46.99	1.900	48.26	1.800	45.72
39	39/78	1.900	48.26	1.950	49.53	1.850	46.99
40	40/80	1.950	49.53	2.000	50.80	1.900	48.26
41	41/82	2.000	50.80	2.050	52.07	1.950	49.53
42	42/84	2.050	52.07	2.100	53.34	2.000	50.80
43	43/86	2.100	53.34	2.150	54.61	2.050	52.07
44	44/88	2.150	54.61	2.200	55.88	2.100	53.34
45	45/90	2.200	55.88	2.250	57.15	2.150	54.61
46	46/92	2.250	57.15	2.300	58.42	2.200	55.88
47	47/94	2.300	58.42	2.350	59.69	2.250	57.15
48	48/96	2.350	59.69	2.400	60.96	2.300	58.42
49	49/98	2.400	60.96	2.450	62.23	2.350	59.69
50	50/100	2.450	62.23	2.500	63.50	2.400	60.96

SULLINS

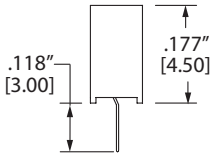
.050" [1.27 mm] Contact Centers, Female Headers, Straight/Right Angle/SMT

SPECIFICATIONS

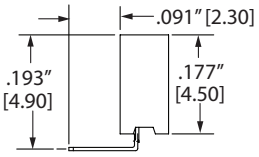
- Insulator Material: LCP
- Contact Material: Phosphor Bronze
- Plating: Gold Flash Overall
- 1 Amp current rating
- UL Flammability Rating: 94V-0



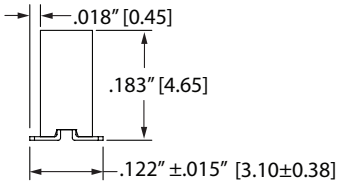
TERMINATION TYPE



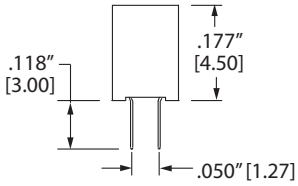
SINGLE ROW, STRAIGHT (NFFN)



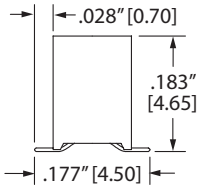
SINGLE ROW, RIGHT ANGLE (NGCN)



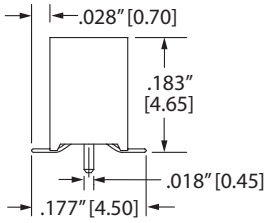
SINGLE ROW, SMT (NFSC, NFSD)



DUAL ROW, STRAIGHT (CFFN)

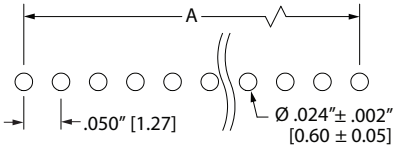


DUAL ROW, SMT Without Guide Posts (NFSS)

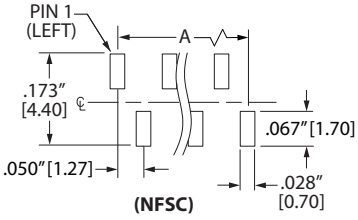


DUAL ROW, SMT With Guide Posts (NFSP)

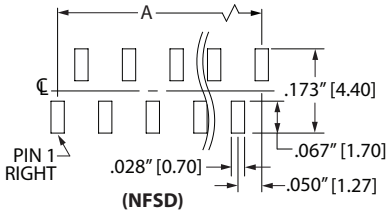
PCB LAYOUT



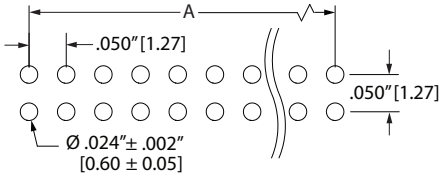
(NFFN, NGCN)



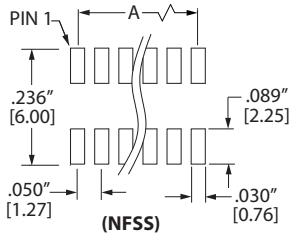
(NFSC)



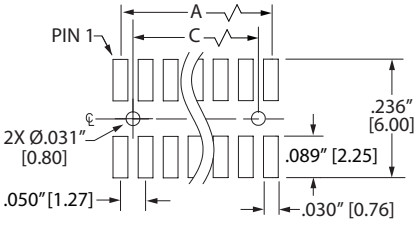
(NFSD)



(CFFN)



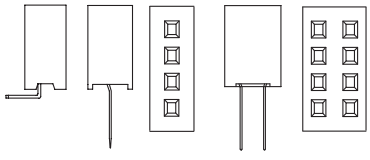
(NFSS)



(NFSP)

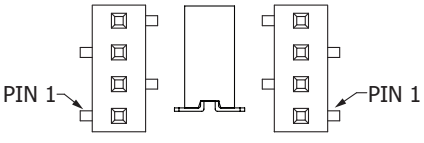
MOUNTING STYLE

SINGLE ROW **DUAL ROW**



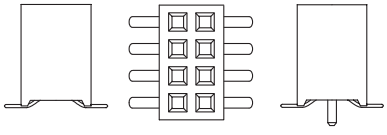
NO MOUNTING (N)

SINGLE ROW



SMT, Pin 1 Left (C) **SMT, Pin 1 Right (D)**

DUAL ROW



SMT Without Guide Post (S) **SMT With Guide Post (P)**

.050" [1.27 mm] Contact Centers, Female Headers, Straight/Right Angle/SMT

PART NUMBER OPTIONS

L P P B xx 1 NFF N - RC

INSULATOR MATERIAL
L = LCP

CONTACT MATERIAL
P = Phosphor Bronze

CONTACT FINISH - RoHS Compliant
P = Gold Flash Overall

CONTACT CENTERS
B = .050" [1.27 mm]

NUMBER OF POSITIONS

Positions Available	Termination
2 Thru 50	= NFFN, NGCN, NFSC, NFSD, Single Row
2 Thru 50	= CFFN, NFSS, Dual Row
3 Thru 50	= NFSP, Dual Row

RoHS COMPLIANT
Consult Factory For Modifications

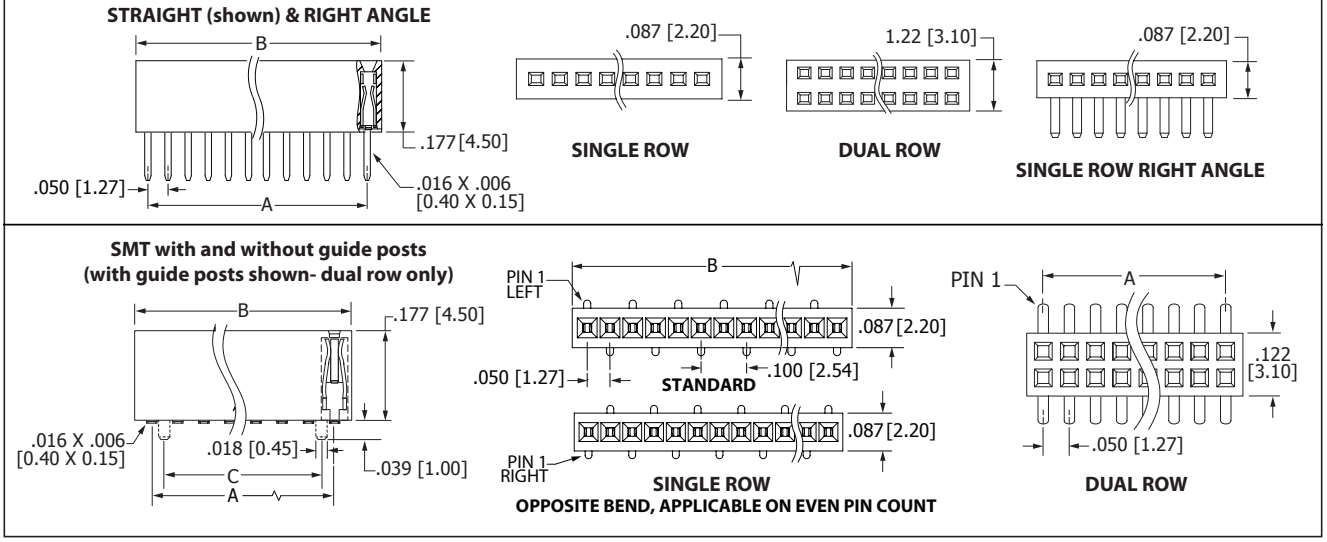
MOUNTING STYLE
N = No Mounting
C = Surface Mount, Pin 1 Left (Single Row Only)
D = Surface Mount, Pin 1 Right (Single Row Only)
S = Surface Mount without Guide Posts (Dual Row Only)
P = Surface Mount with Guide Posts (Dual Row Only)

TERMINATION TYPE (See Opposite Page)
NFF, CFF, NGC, NFS

NUMBER OF ROWS
1 = Single Row
2 = Dual Row

DIMENSIONS

Dimensions in [ ] are in millimeters, all others are in inches.



POSITIONS	NUMBER OF CONTACTS SINGLE/DUAL	A		B		C	
		in	mm	in	mm	in	mm
02	2/4	.050	1.27	0.116	2.94	N/A	
03	3/6	.100	2.54	0.166	4.21	.050	1.27
04	4/8	.150	3.81	0.216	5.48	.100	2.54
05	5/10	.200	5.08	0.266	6.75	.150	3.81
06	6/12	.250	6.35	0.316	8.02	.200	5.08
07	7/14	.300	7.62	0.366	9.29	.250	6.35
08	8/16	.350	8.89	0.416	10.56	.300	7.62
09	9/18	.400	10.16	0.466	11.83	.350	8.89
10	10/20	.450	11.43	0.516	13.10	.400	10.16
11	11/22	.500	12.70	0.566	14.37	.450	11.43
12	12/24	.550	13.97	0.616	15.64	.500	12.70
13	13/26	.600	15.24	0.666	16.91	.550	13.97
14	14/28	.650	16.51	0.716	18.18	.600	15.24
15	15/30	.700	17.78	0.766	19.45	.650	16.51
16	16/32	.750	19.05	0.816	20.72	.700	17.78
17	17/34	.800	20.32	0.866	21.99	.750	19.05
18	18/36	.850	21.59	0.916	23.26	.800	20.32
19	19/38	.900	22.86	0.966	24.53	.850	21.59
20	20/40	.950	24.13	1.016	25.80	.900	22.86
21	21/42	1.000	25.40	1.066	27.07	.950	24.13
22	22/44	1.050	26.67	1.116	28.34	1.000	25.40
23	23/46	1.100	27.94	1.166	29.61	1.050	26.67
24	24/48	1.150	29.21	1.216	30.88	1.100	27.94
25	25/50	1.200	30.48	1.266	32.15	1.150	29.21
26	26/52	1.250	31.75	1.316	33.42	1.200	30.48

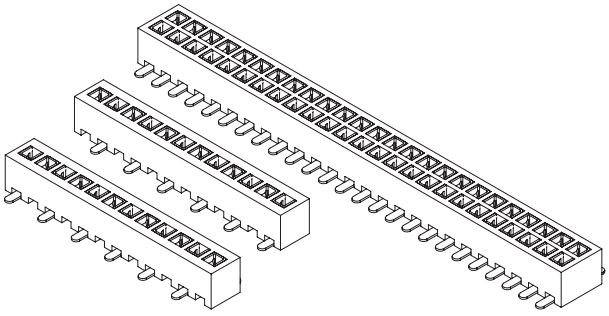
POSITIONS	NUMBER OF CONTACTS SINGLE/DUAL	A		B		C	
		in	mm	in	mm	in	mm
27	27/54	1.300	33.02	1.366	34.69	1.250	31.75
28	28/56	1.350	34.29	1.416	35.96	1.300	33.02
29	29/58	1.400	35.56	1.466	37.23	1.350	34.29
30	30/60	1.450	36.83	1.516	38.50	1.400	35.56
31	31/62	1.500	38.10	1.566	39.77	1.450	36.83
32	32/64	1.550	39.37	1.616	41.04	1.500	38.10
33	33/66	1.600	40.64	1.666	42.31	1.550	39.37
34	34/68	1.650	41.91	1.716	43.58	1.600	40.64
35	35/70	1.700	43.18	1.766	44.85	1.650	41.91
36	36/72	1.750	44.45	1.816	46.12	1.700	43.18
37	37/74	1.800	45.72	1.866	47.39	1.750	44.45
38	38/76	1.850	46.99	1.916	48.66	1.800	45.72
39	39/78	1.900	48.26	1.966	49.93	1.850	46.99
40	40/80	1.950	49.53	2.016	51.20	1.900	48.26
41	41/82	2.000	50.80	2.066	52.47	1.950	49.53
42	42/84	2.050	52.07	2.116	53.74	2.000	50.80
43	43/86	2.100	53.34	2.166	55.01	2.050	52.07
44	44/88	2.150	54.61	2.216	56.28	2.100	53.34
45	45/90	2.200	55.88	2.266	57.55	2.150	54.61
46	46/92	2.250	57.15	2.316	58.82	2.200	55.88
47	47/94	2.300	58.42	2.366	60.09	2.250	57.15
48	48/96	2.350	59.69	2.416	61.36	2.300	58.42
49	49/98	2.400	60.96	2.466	62.63	2.350	59.69
50	50/100	2.450	62.23	2.516	63.90	2.400	60.96

SULLINS

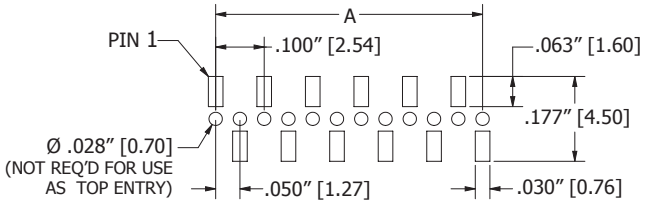
.050" [1.27 mm] Contact Centers, Top/Bottom Entry SMT Female Headers

SPECIFICATIONS

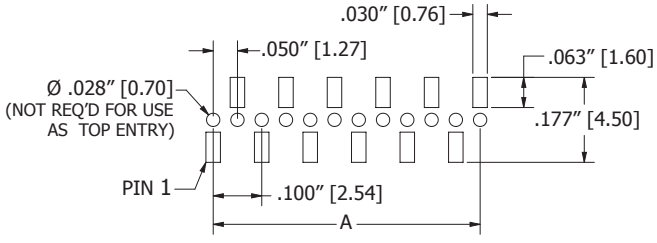
- Insulator Material: Nylon, UL 94V-0
- Contact Resistance: 20 milli Ohms Max.
- Current Rating: 1 Amp
- Dielectric Withstanding: 500 VAC
- Insulation Resistance: 5000 Megohms Min.
- Operating Temperature: -40°C to +105°C
- Processing Temperature: 230°C Max. for 60 seconds, (260°C Max. for 10 seconds)



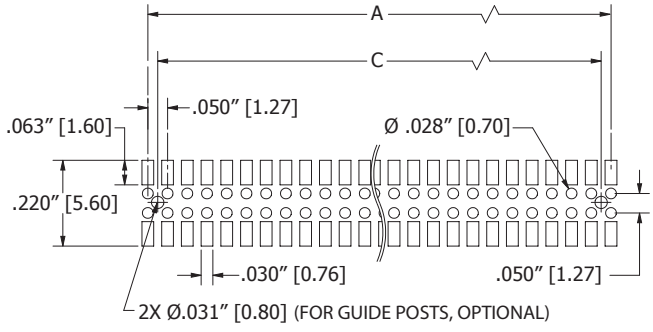
RECOMMENDED PCB LAYOUT



SFM230-NPPB-S_ _-SC -BK

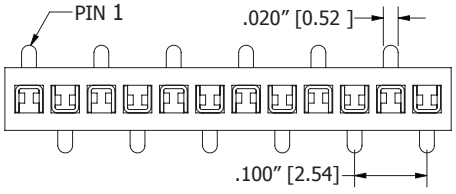


SFM230-NPPB-S_ _-SD -BK

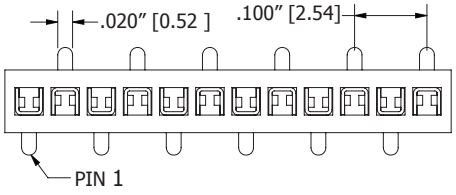


SFM230-NPPB-D_ _-S_-BK

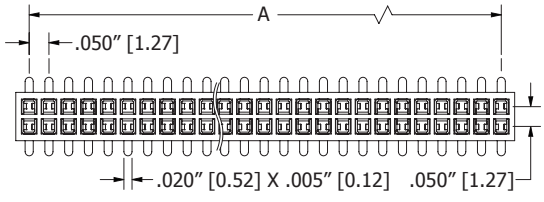
DIMENSIONS



SFM230-NPPB-S_ _-SC -BK
(STANDARD)



SFM230-NPPB-S_ _-SD -BK
(OPPOSITE BEND, APPLICABLE ON EVEN PIN COUNTS)



SFM230-NPPB-D_ _-S_-BK

.050" [1.27 mm] Contact Centers, Top/Bottom Entry SMT Female Headers

PART NUMBER OPTIONS

SFM230 - N P P B - D 02 - SM - BK

SERIES
SFM230 = Female Header W/2.30 mm Insulator Height

INSULATOR MATERIAL
N = Nylon

CONTACT MATERIAL
P = Phosphor Bronze

CONTACT FINISH - RoHS Compliant
P = Gold Flash Overall

CONTACT CENTERS
B = .050" [1.27 mm]

NUMBER OF ROWS
S = Single
D = Dual

NUMBER OF CONTACT POSITIONS
(Contact Per Row, 02 thru 50)

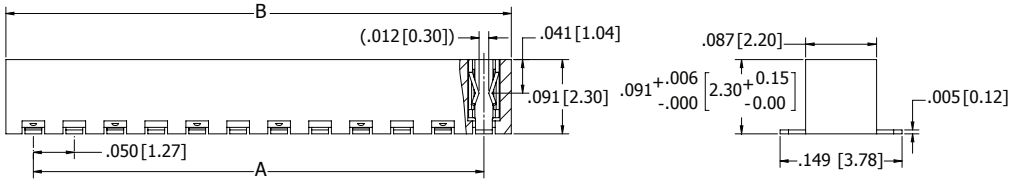
TERMINATION TYPE (See Opposite Page)
SC = Surface Mount, Standard (Single Row)
SD = Surface Mount, Opposite Bend, Applicable on Even Pin Counts (Single Row)
SM = Surface Mount without Guide Posts (Dual Row)
SP = Surface Mount with Guide Posts (Dual Row)

COLOR
BK = Black

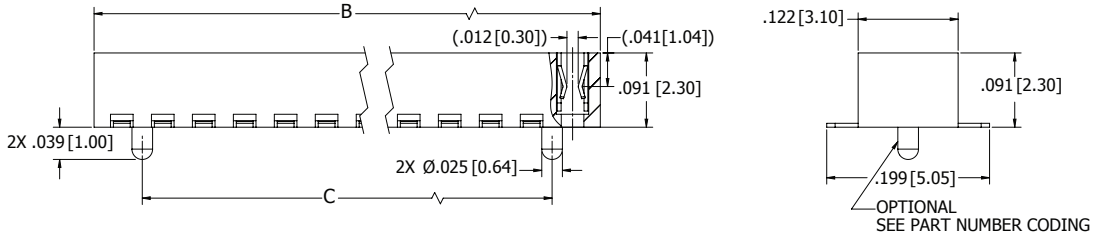
DIMENSIONS

Dimensions in [ ] are in millimeters, all others are in inches.

Single Row



Dual Row



NUMBER OF CONTACTS SINGLE/DUAL	A		B		C	
	in	mm	in	mm	in	mm
02/04*	0.050	1.27	0.118	2.99	N/A	
03/06	0.100	2.54	0.168	4.26	0.050	1.27
04/08	0.150	3.81	0.218	5.53	0.100	2.54
05/10	0.200	5.08	0.268	6.80	0.150	3.81
06/12	0.250	6.35	0.318	8.07	0.200	5.08
07/14	0.300	7.62	0.368	9.34	0.250	6.35
08/16	0.350	8.89	0.418	10.61	0.300	7.62
09/18	0.400	10.16	0.468	11.88	0.350	8.89
10/20	0.450	11.43	0.518	13.15	0.400	10.16
11/22	0.500	12.70	0.568	14.42	0.450	11.43
12/24	0.550	13.97	0.618	15.69	0.500	12.70
13/26	0.600	15.24	0.668	16.96	0.550	13.97
14/28	0.650	16.51	0.718	18.23	0.600	15.24
15/30	0.700	17.78	0.768	19.50	0.650	16.51
16/32	0.750	19.05	0.818	20.77	0.700	17.78
17/34	0.800	20.32	0.868	22.04	0.750	19.05
18/36	0.850	21.59	0.918	23.31	0.800	20.32
19/38	0.900	22.86	0.968	24.58	0.850	21.59
20/40	0.950	24.13	1.018	25.85	0.900	22.86
21/42	1.000	25.40	1.068	27.12	0.950	24.13
22/44	1.050	26.67	1.118	28.39	1.000	25.40
23/46	1.100	27.94	1.168	29.66	1.050	26.67
24/48	1.150	29.21	1.218	30.93	1.100	27.94
25/50	1.200	30.48	1.268	32.20	1.150	29.21
26/52	1.250	31.75	1.318	33.47	1.200	30.48

NUMBER OF CONTACTS SINGLE/DUAL	A		B		C	
	in	mm	in	mm	in	mm
27/54	1.300	33.02	1.368	34.74	1.250	31.75
28/56	1.350	34.29	1.418	36.01	1.300	33.02
29/58	1.400	35.56	1.468	37.28	1.350	34.29
30/60	1.450	36.83	1.518	38.55	1.400	35.56
31/62	1.500	38.10	1.568	39.82	1.450	36.83
32/64	1.550	39.37	1.618	41.09	1.500	38.10
33/66	1.600	40.64	1.668	42.36	1.550	39.37
34/68	1.650	41.91	1.718	43.63	1.600	40.64
35/70	1.700	43.18	1.768	44.90	1.650	41.91
36/72	1.750	44.45	1.818	46.17	1.700	43.18
37/74	1.800	45.72	1.868	47.44	1.750	44.45
38/76	1.850	46.99	1.918	48.71	1.800	45.72
39/78	1.900	48.26	1.968	49.98	1.850	46.99
40/80	1.950	49.53	2.018	51.25	1.900	48.26
41/82	2.000	50.80	2.068	52.52	1.950	49.53
42/84	2.050	52.07	2.118	53.79	2.000	50.80
43/86	2.100	53.34	2.168	55.06	2.050	52.07
44/88	2.150	54.61	2.218	56.33	2.100	53.34
45/90	2.200	55.88	2.268	57.60	2.150	54.61
46/92	2.250	57.15	2.318	58.87	2.200	55.88
47/94	2.300	58.42	2.368	60.14	2.250	57.15
48/96	2.350	59.69	2.418	61.41	2.300	58.42
49/98	2.400	60.96	2.468	62.68	2.350	59.69
50/100	2.450	62.23	2.518	63.95	2.400	60.96

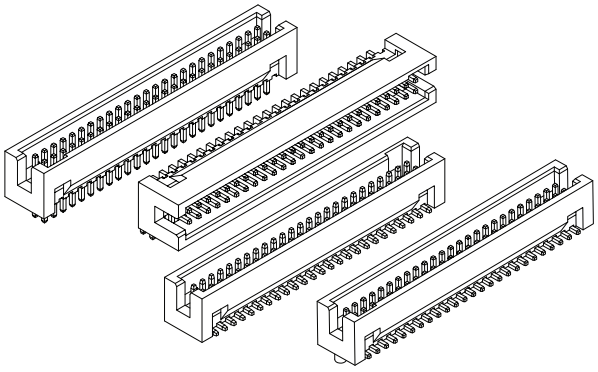
* Not available with guide posts.

SULLINS

.050" [1.27 mm] Contact Centers, Shrouded (Box) Headers/Straight/Right Angle/SMT With or Without Post- SBH Series Mates with SFH31 series (See opposite page)

SPECIFICATIONS

- Polarizing Notch
- Operating Temperature: -40°C to +105°C
- Processing Temperature: 230°C Max. for 60 seconds, (260°C Max. for 10 seconds)
- UL Flammability Rating: 94V-0
- Contact Resistance: 20 milli Ohms Max.
- Current Rating: 1 Amp
- Dielectric Withstanding: 500 VAC
- Insulation Resistance: 5000 Megohms



PART NUMBER OPTIONS

SBH31 - N B P B - D 10 - ST - BK

SERIES
SBH31 = Box Header, .050" [1.27 mm] Contact Centers by .050" [1.27 mm] Row Spacing

INSULATOR MATERIAL
N = Nylon
L = LCP

CONTACT MATERIAL
B = Brass

CONTACT FINISH - RoHS Compliant
P = Gold Flash Overall

CONTACT CENTERS
B = .050" [1.27 mm]

NUMBER OF ROWS
D = Dual Row

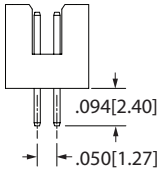
NUMBER OF CONTACT POSITIONS (Pins per Row)
03 thru 50

TERMINATION TYPE
ST = Straight
RA = Right Angle
SM = Surface Mount
SP = Surface Mount with Guide Posts

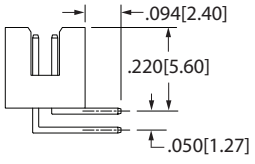
COLOR
BK = Black

DIMENSIONS For complete drawings, go to www.sullinscorp.com or e-mail techsupport@sullinscorp.com

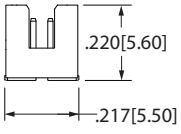
Dimensions in [ ] are in millimeters, all others are in inches.



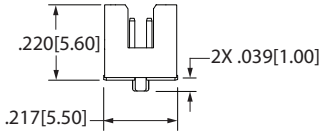
STRAIGHT (ST)
Example P/N: **SBH31-NBPB-D20-ST-BK**



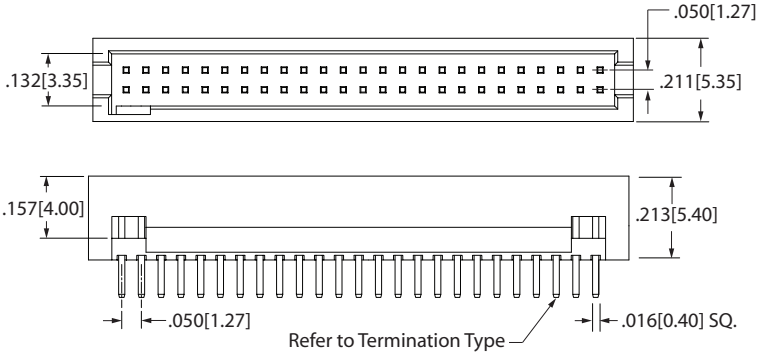
RIGHT ANGLE (RA)
Example P/N: **SBH31-NBPB-D20-RA-BK**

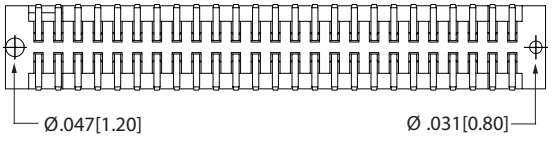


SURFACE MOUNT (SM)
Example P/N: **SBH31-NBPB-D20-SM-BK**



SURFACE MOUNT with Posts (SP)
Example P/N: **SBH31-NBPB-D20-SP-BK**



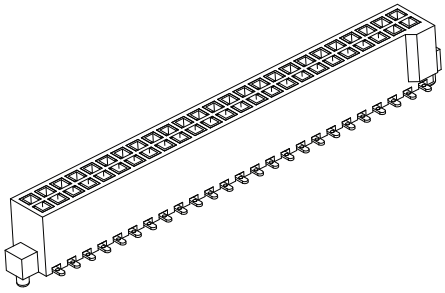


Surface Mount with Posts (SP) Only

.050" [1.27 mm] Contact Centers, Female Header, SMT with Posts- SFH Series
Mates with SBH31 series (See opposite page)

SPECIFICATIONS

- Operating Temperature: -40°C to +105°C
- Processing Temperature: 230°C Max. for 60 seconds, (260°C Max. for 10 seconds)
- UL Flammability Rating: 94V-0
- Contact Resistance: 20 milli Ohms Max.
- Current Rating: 1 Amp
- Dielectric Withstanding: 500 VAC
- Insulation Resistance: 5000 Megohms



PART NUMBER OPTIONS

SFH31 - N P P B - D 10 - SP - BK

SERIES
SFH31 = Female Header, .050" [1.27 mm] Contact Centers by .050" [1.27 mm] Row Spacing

INSULATOR MATERIAL
N = Nylon

CONTACT MATERIAL
P = Phosphor Bronze

CONTACT FINISH - RoHS Compliant
P = Gold Flash Overall
E = .000100" Pure Tin, Matte, Overall

COLOR
BK = Black

TERMINATION TYPE
SP = Surface Mount with Guide Posts

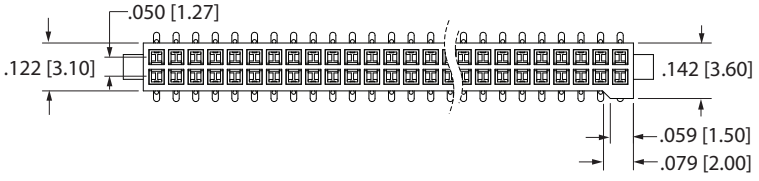
NUMBER OF CONTACT POSITIONS
03 thru 50

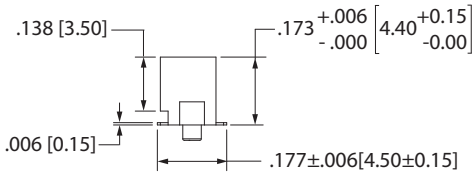
NUMBER OF ROWS
D = Dual Row

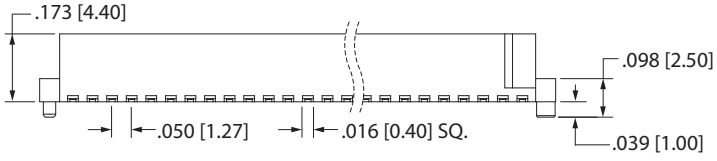
CONTACT CENTERS
B = .050" [1.27 mm]

DIMENSIONS **For complete drawings, go to www.sullinscorp.com or e-mail techsupport@sullinscorp.com**

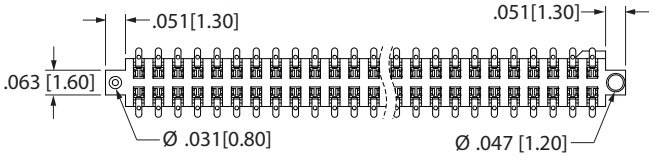
Dimensions in [ ] are in millimeters, all others are in inches.







SURFACE MOUNT with Posts (SP)
Example P/N: **SFH31-NPPB-D20-SP-BK**



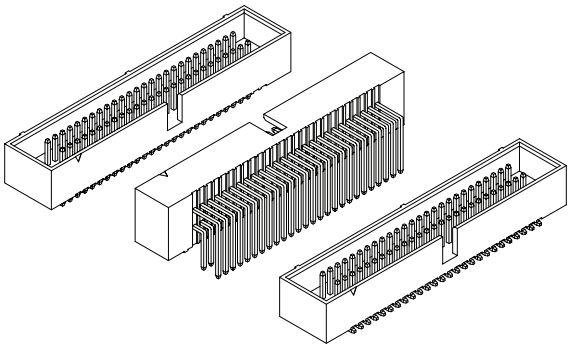
SULLINS

.050" [1.27 mm] Contact Centers Shrouded (Box) Headers, .100" [2.54 mm] Row Spacing Straight/Right Angle/SMT With or Without Post- SBH Series

Mates with SFH41 series (See opposite page)

SPECIFICATIONS

- Centered Polarizing Notch
- Operating Temperature: -40°C to +105°C
- Processing Temperature: 230°C Max. for 60 seconds, (260°C Max. for 10 seconds)
- UL Flammability Rating: 94V-0
- Contact Resistance: 20 milli Ohms Max.
- Current Rating: 1 Amp
- Dielectric Withstanding: 500 VAC
- Insulation Resistance: 5000 Megohms



PART NUMBER OPTIONS

SBH41 - N B P B - D 10 - ST - BK

SERIES
SBH41 = Box Header, .050" [1.27 mm] Contact Centers by .100" [2.54 mm] Row Spacing

INSULATOR MATERIAL
N = Nylon

CONTACT MATERIAL
B = Brass

CONTACT FINISH - RoHS Compliant
P = Gold Flash Overall

CONTACT CENTERS
B = .050" [1.27 mm]

NUMBER OF ROWS
D = Dual Row

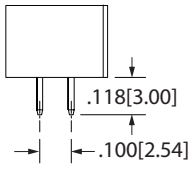
NUMBER OF CONTACT POSITIONS (Pins per Row)
05 thru 50

TERMINATION TYPE
ST = Straight
RA = Right Angle
SM = Surface Mount
SP = Surface Mount with Guide Posts

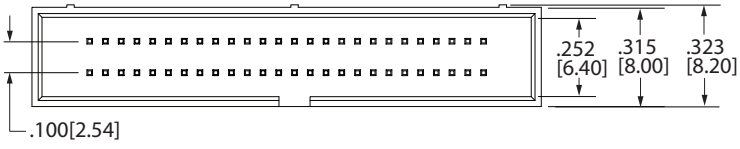
COLOR
BK = Black

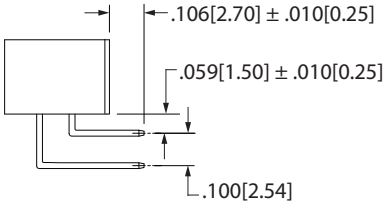
DIMENSIONS **For complete drawings, go to www.sullinscorp.com or e-mail techsupport@sullinscorp.com**

Dimensions in [ ] are in millimeters, all others are in inches.

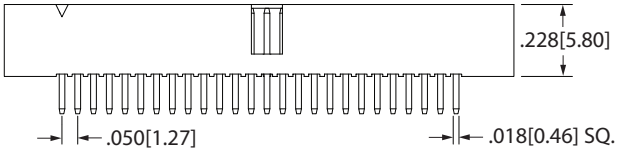


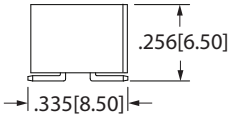
STRAIGHT (ST)
Example P/N: **SBH41-NBPB-D20-ST-BK**



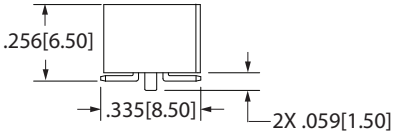


RIGHT ANGLE (RA)
Example P/N: **SBH41-NBPB-D20-RA-BK**

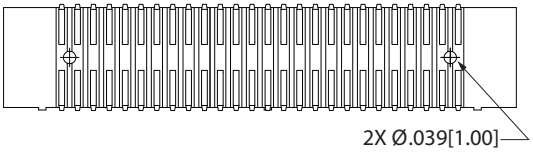




SURFACE MOUNT (SM)
Example P/N: **SBH41-NBPB-D20-SM-BK**



SURFACE MOUNT with Posts (SP)
Example P/N: **SBH41-NBPB-D20-SP-BK**

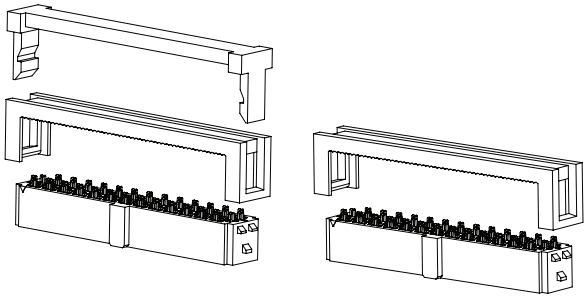


Surface Mount with Posts (SP) Only

.050" [1.27 mm] Contact Centers, IDC Sockets, .100" [2.54 mm] Row Spacing Insulation Displacement With or Without Strain Relief - SFH Series Mates with SBH41 series (See opposite page)

SPECIFICATIONS

- Centered Polarizing Key
- Operating Temperature: -40°C to +105°C
- UL Flammability Rating: 94V-0
- Contact Resistance: 30 Megohms Max.
- Current Rating: 1 Amp
- Dielectric Withstanding: 500 VAC
- Insulation Resistance: 1000 Megohms



PART NUMBER OPTIONS

SFH41 - P P P B - D 10 - ID - BK

SERIES
SFH41 = IDC Socket Without Strain Relief, .050" [1.27 mm] Contact Centers by .100" [2.54 mm] Row Spacing
SFH413 = IDC Socket With Strain Relief, .050" [1.27 mm] Contact Centers by .100" [2.54 mm] Row Spacing

INSULATOR MATERIAL
P = PBT

CONTACT MATERIAL
P = Phosphor Bronze

CONTACT FINISH - RoHS Compliant
P = Gold Flash Overall
E = .000100" Pure Tin, Matte, Overall
V = Gold Flash on Contact Surface, Nickel on Termination

COLOR
BK = Black

TERMINATION TYPE
ID = Insulation Displacement

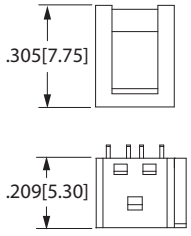
NUMBER OF CONTACT POSITIONS
05, 08, 10, 13, 15, 17, 20, 25, 30, 34, 40, 50

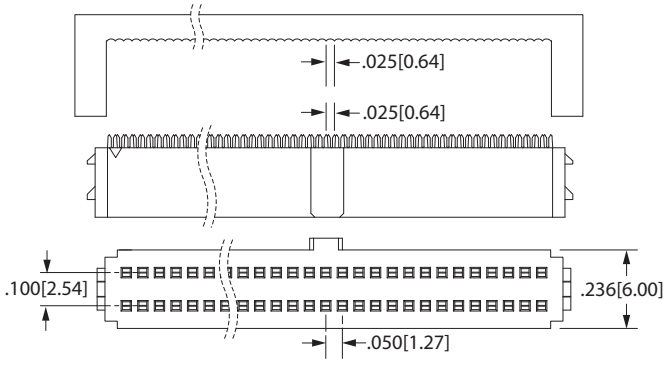
NUMBER OF ROWS
D = Dual Row

CONTACT CENTERS
B = .050" [1.27 mm]

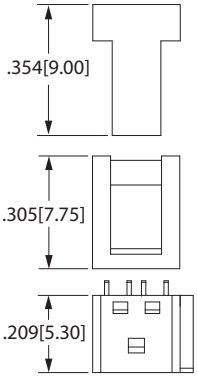
DIMENSIONS For complete drawings, go to www.sullinscorp.com or e-mail techsupport@sullinscorp.com

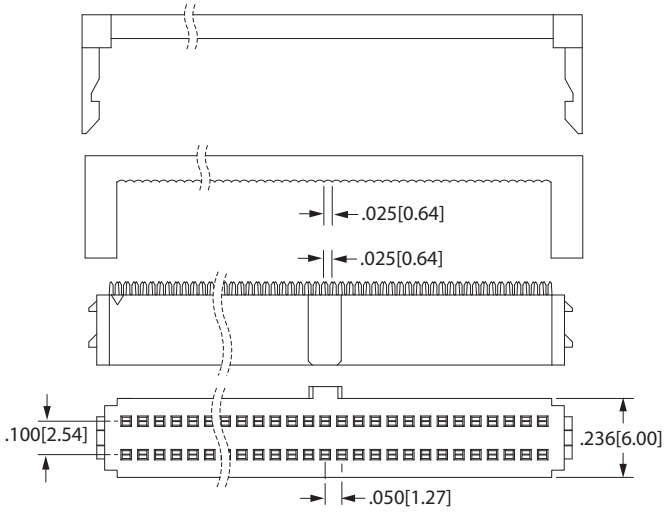
Dimensions in [ ] are in millimeters, all others are in inches.





INSULATION DISPLACEMENT (ID)
without Strain Relief
Requires SFH41
Example P/N: **SFH41-PPPB-D20-ID-BK**





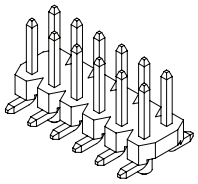
INSULATION DISPLACEMENT (ID)
with Strain Relief
Requires SFH413
Example P/N: **SFH413-PPPB-D20-ID-BK**

SULLINS

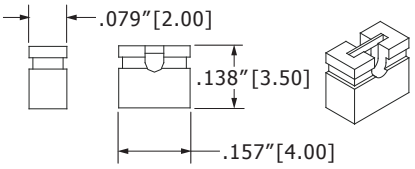
.079" [2.00 mm] Contact Centers, Male Headers, Straight/Right Angle/SMT

SPECIFICATIONS

- 2 Amps current rating
- UL Flammability Rating: 94V-0
- Insulator Material: Nylon
- Contact Material: Brass
- Stacker Options available - Consult Factory

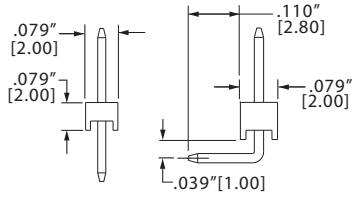


JUMPERS

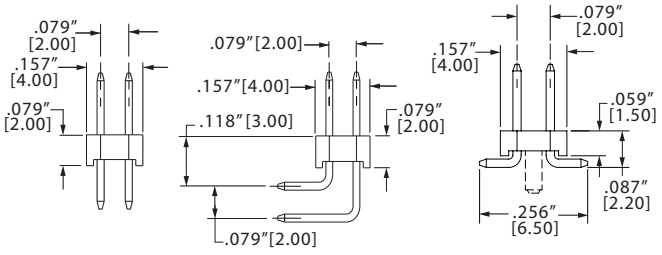


PART NUMBER:
SPN02SYBN-RC (GOLD FLASH)
STN02SYBN-RC (TIN PLATE)

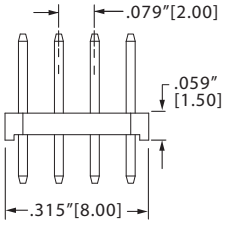
READOUT



SINGLE (1)

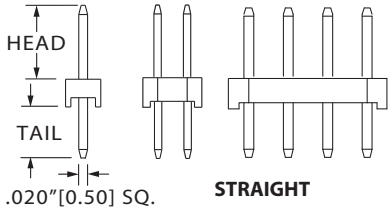


DUAL (2)

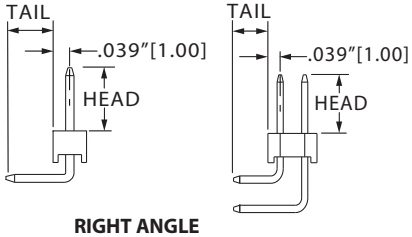


QUAD (4)

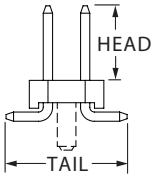
TERMINATION TYPE



STRAIGHT



RIGHT ANGLE



SMT

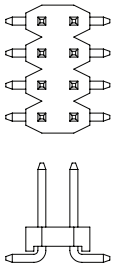
P/N CODE	ROWS	TERMINATION TYPE	HEAD	TAIL
PAE	1	STRAIGHT	.142" [3.60]	.110" [2.80]
PAE	2	STRAIGHT	.142" [3.60]	.110" [2.80]
RCC	4	STRAIGHT	.173" [4.40]	.094" [2.40]

P/N CODE	ROWS	TERMINATION TYPE	HEAD	TAIL
PAR	1	RIGHT ANGLE	.142" [3.60]	.110" [2.80]
PAR	2	RIGHT ANGLE	.142" [3.60]	.110" [2.80]

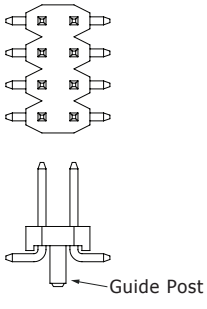
P/N CODE	ROWS	TERMINATION TYPE	HEAD	TAIL
MAM	2	SMT	.142" [3.60]	.256" [6.50]

MOUNTING STYLE

Straight or Right Angle (N)



Dual Row SMT, Without Guide Posts (S)



Dual Row SMT, With Guide Posts (P)

.079" [2.00 mm] Contact Centers, Male Headers, Straight/Right Angle/SMT

PART NUMBER OPTIONS

N R P N 40 1 PAE N - RC

INSULATOR MATERIAL
N = Nylon

CONTACTS
R = Brass

CONTACT FINISH - RoHS Compliant
P = Gold Flash Overall

CONTACT CENTERS
N = .079" [2.00 mm]

NUMBER OF POSITIONS

Positions Available	Termination
2 Thru 40	MAM, PAE, PAR
3 Thru 30	RCC

RoHS COMPLIANT
Consult Factory For Modifications

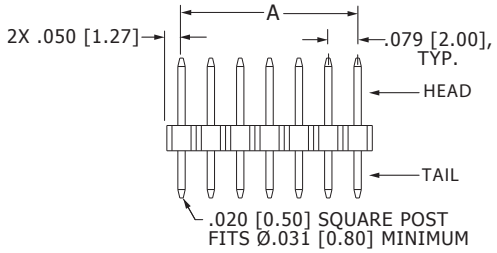
MOUNTING STYLE
N = No Mounting
P = Surface Mount with Guide Posts (Dual Row)
S = Surface Mount without Guide Posts (Dual Row)

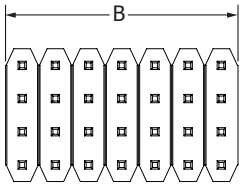
TERMINATION TYPE
MAM, PAE, PAR, RCC

NUMBER OF ROWS
1 = One row
2 = Two rows
4 = Four rows

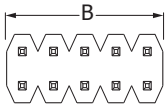
DIMENSIONS

Dimensions in [ ] are in millimeters, all others are in inches.

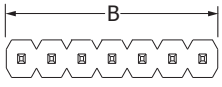




QUAD READOUT, STRAIGHT TAIL SHOWN



DUAL READOUT, STRAIGHT TAIL SHOWN



SINGLE READOUT, STRAIGHT TAIL SHOWN

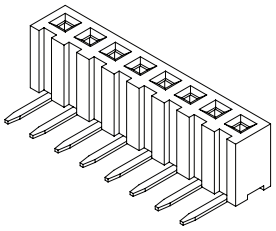
PART NUMBER	NUMBER OF CONTACTS SINGLE/DUAL/ QUAD	A		B	
		in	mm	in	mm
NRPN02 _____ -RC	02/04	0.079	2.00	0.157	4.00
NRPN03 _____ -RC	03/06/12	0.157	4.00	0.236	6.00
NRPN04 _____ -RC	04/08/16	0.236	6.00	0.315	8.00
NRPN05 _____ -RC	05/10/20	0.315	8.00	0.394	10.00
NRPN06 _____ -RC	06/12/24	0.394	10.00	0.472	12.00
NRPN07 _____ -RC	07/14/28	0.472	12.00	0.551	14.00
NRPN08 _____ -RC	08/16/32	0.551	14.00	0.630	16.00
NRPN09 _____ -RC	09/18/36	0.630	16.00	0.709	18.00
NRPN10 _____ -RC	10/20/40	0.709	18.00	0.787	20.00
NRPN11 _____ -RC	11/22/44	0.787	20.00	0.866	22.00
NRPN12 _____ -RC	12/24/48	0.866	22.00	0.945	24.00
NRPN13 _____ -RC	13/26/52	0.945	24.00	1.024	26.00
NRPN14 _____ -RC	14/28/56	1.024	26.00	1.102	28.00
NRPN15 _____ -RC	15/30/60	1.102	28.00	1.181	30.00
NRPN16 _____ -RC	16/32/64	1.181	30.00	1.260	32.00
NRPN17 _____ -RC	17/34/68	1.260	32.00	1.339	34.00
NRPN18 _____ -RC	18/36/72	1.339	34.00	1.417	36.00
NRPN19 _____ -RC	19/38/76	1.417	36.00	1.496	38.00
NRPN20 _____ -RC	20/40/80	1.496	38.00	1.575	40.00
NRPN21 _____ -RC	21/42/84	1.575	40.00	1.654	42.00
NRPN22 _____ -RC	22/44/88	1.654	42.00	1.732	44.00
NRPN23 _____ -RC	23/46/92	1.732	44.00	1.811	46.00
NRPN24 _____ -RC	24/48/96	1.811	46.00	1.890	48.00
NRPN25 _____ -RC	25/50/100	1.890	48.00	1.969	50.00
NRPN26 _____ -RC	26/52/104	1.969	50.00	2.047	52.00
NRPN27 _____ -RC	27/54/108	2.047	52.00	2.126	54.00
NRPN28 _____ -RC	28/56/112	2.126	54.00	2.205	56.00
NRPN29 _____ -RC	29/58/116	2.205	56.00	2.283	58.00
NRPN30 _____ -RC	30/60/120	2.283	58.00	2.362	60.00
NRPN31 _____ -RC	31/62	2.362	60.00	2.441	62.00
NRPN32 _____ -RC	32/64	2.441	62.00	2.520	64.00
NRPN33 _____ -RC	33/66	2.520	64.00	2.598	66.00
NRPN34 _____ -RC	34/68	2.598	66.00	2.677	68.00
NRPN35 _____ -RC	35/70	2.677	68.00	2.756	70.00
NRPN36 _____ -RC	36/72	2.756	70.00	2.835	72.00
NRPN37 _____ -RC	37/74	2.835	72.00	2.913	74.00
NRPN38 _____ -RC	38/76	2.913	74.00	2.992	76.00
NRPN39 _____ -RC	39/78	2.992	76.00	3.071	78.00
NRPN40 _____ -RC	40/80	3.071	78.00	3.150	80.00

SULLINS

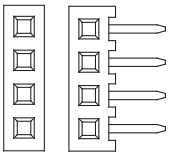
.079" [2.00 mm] Contact Centers, Female Headers, Straight/Right Angle/SMT

SPECIFICATIONS

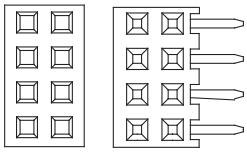
- 2 Amps current rating
- UL Flammability Rating: 94V-0
- Insulator Material: Black Nylon
- Contact Material: Phosphor Bronze



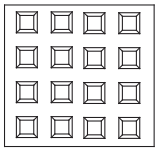
READOUT



SINGLE (1)

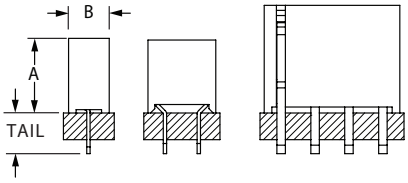


DUAL (2)



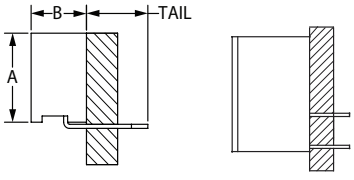
QUAD (4)

TERMINATION TYPE



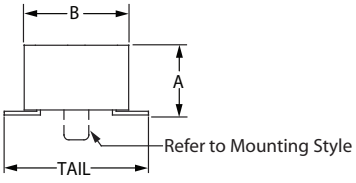
STRAIGHT

P/N CODE	ROWS	TERMINATION TYPE	A	B	TAIL
BFC	1	STRAIGHT	.173 [4.40]	.094 [2.40]	.094 [2.40]
AFC	2	STRAIGHT	.169 [4.30]	.157 [4.00]	.094 [2.40]
AFE	2	STRAIGHT	.169 [4.30]	.157 [4.00]	.110 [2.80]
EFC	4	STRAIGHT	.250 [6.35]	.315 [8.00]	.094 [2.40]



RIGHT ANGLE

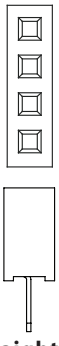
P/N CODE	ROWS	TERMINATION TYPE	A	B	TAIL
FGG	1	RIGHT ANGLE	.169 [4.30]	.110 [2.80]	.122 [3.10]
FJF	2	RIGHT ANGLE	.283 [7.20]	.191 [4.85]	.118 [3.00]



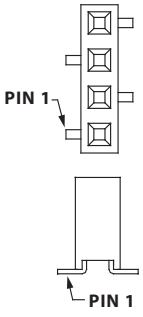
SMT

P/N CODE	ROWS	TERMINATION TYPE	A	B	TAIL
BFL	1	SMT	.181 [4.60]	.094 [2.40]	.157 [4.00]
BHL	1	SMT	.169 [4.30]	.094 [2.40]	.157 [4.00]
GFN	2	SMT	.110 [2.80]	.165 [4.20]	.228 [5.80]
GHN	Replaced by GFN				
FFK	2	SMT	.173 [4.40]	.157 [4.00]	.228 [5.80]

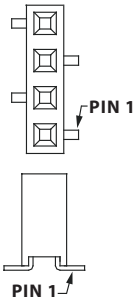
MOUNTING STYLE



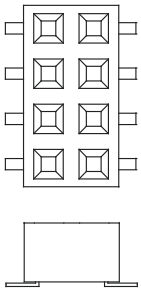
Straight or Right Angle (N)



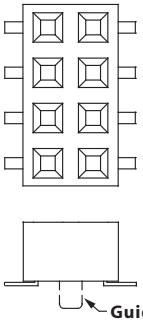
Single Row SMT, Pin 1 Left (C)



Single Row SMT, Pin 1 Right (D)



Dual Row SMT, Without Guide Posts (S)



Dual Row SMT, With Guide Posts (P)

.079" [2.00 mm] Contact Centers, Female Headers, Straight/Right Angle/SMT

PART NUMBER OPTIONS

NP P N 40 1 BFC N - RC

MATERIALS (INSULATOR/CONTACT)
NP = Nylon /Phosphor Bronze

CONTACT FINISH - RoHS Compliant

	Contact Surface	Termination
P =	Gold Flash	Gold Flash (For 1 and 2 Rows)
R =	.000020" Gold	.000100" Tin (For 4 Rows)

Consult factory for other plating options.

CONTACT CENTERS
N = .079" [2.00 mm]

NUMBER OF POSITIONS

Positions Available	Termination
2 Thru 40 =	AFC, AFE, BFL, FFK, FGG, FJF, GFN
3 Thru 40 =	BFC, BHL
5 Thru 30 =	EFC

NUMBER OF ROWS (Opposite Page)
1 = One Row
2 = Two Rows
4 = Four Rows

RoHS COMPLIANT
Consult Factory For Modifications

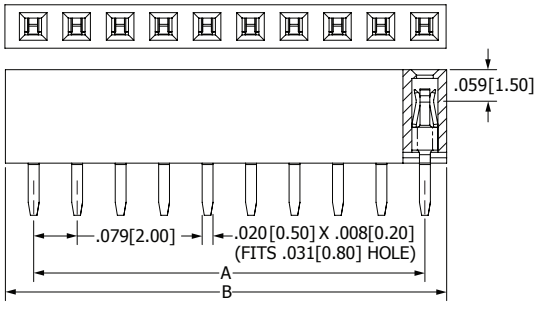
MOUNTING STYLE
N = No Mounting
C = SMT, Single row female, pin 1 Left
D = SMT, Single row female, pin 1 Right
P = Surface mount with guide Posts
S = Surface mount without guide Posts

TERMINATION TYPE (Opposite Page)

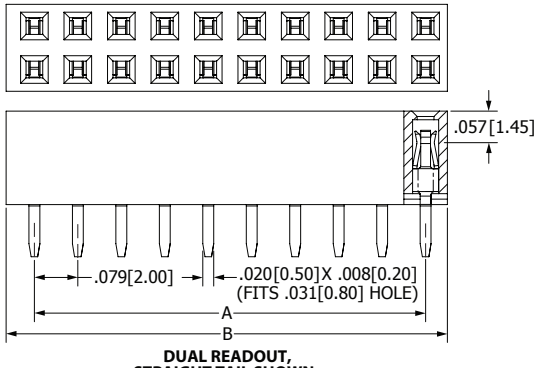
AFC =	Thru Hole	Top Entry
AFE =	Thru Hole	Top Entry/Closed Bottom
BFC =	Thru Hole	Top Entry
EFC =	Thru Hole	Top Entry
FGG =	R/A	Top Entry
FJF =	R/A	Top Entry
BFL =	SMT	Top Entry
FFK =	SMT	Top Entry
BHL, GFN =	SMT	Top/Bottom Entry
GHN =	SMT	Replaced by GFN

DIMENSIONS

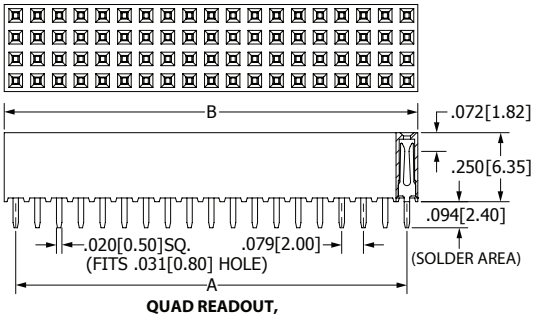
Dimensions in [ ] are in millimeters, all others are in inches.



SINGLE READOUT,
STRAIGHT TAIL SHOWN



DUAL READOUT,
STRAIGHT TAIL SHOWN



QUAD READOUT,
STRAIGHT TAIL SHOWN

NUMBER OF CONTACTS SINGLE/DUAL/ QUAD	CENTER TO CENTER LENGTH [A]		OVERALL LENGTH [B]**	
	in	mm	in	mm
02/04/NA	0.079	2.00	0.157	4.00
03/06/NA	0.157	4.00	0.236	6.00
04/08/NA	0.236	6.00	0.315	8.00
05/10/20	0.315	8.00	0.394	10.00
06/12/24	0.394	10.00	0.472	12.00
07/14/28	0.472	12.00	0.551	14.00
08/16/32	0.551	14.00	0.630	16.00
09/18/36	0.630	16.00	0.709	18.00
10/20/40	0.709	18.00	0.787	20.00
11/22/44	0.787	20.00	0.866	22.00
12/24/48	0.866	22.00	0.945	24.00
13/26/52	0.945	24.00	1.024	26.00
14/28/54	1.024	26.00	1.102	28.00
15/30/60	1.102	28.00	1.181	30.00
16/32/64	1.181	30.00	1.260	32.00
17/34/68	1.260	32.00	1.339	34.00
18/36/72	1.339	34.00	1.417	36.00
19/38/76	1.417	36.00	1.496	38.00
20/40/80	1.496	38.00	1.575	40.00
21/42/84	1.575	40.00	1.654	42.00
22/44/88	1.654	42.00	1.732	44.00
23/46/92	1.732	44.00	1.811	46.00
24/48/96	1.811	46.00	1.890	48.00
25/50/100	1.890	48.00	1.969	50.00
26/52/104	1.969	50.00	2.047	52.00
27/54/108	2.047	52.00	2.126	54.00
28/56/112	2.126	54.00	2.205	56.00
29/58/116	2.205	56.00	2.283	58.00
30/60/120	2.283	58.00	2.362	60.00
31/62/NA	2.362	60.00	2.441	62.00
32/64/NA	2.441	62.00	2.520	64.00
33/66/NA	2.520	64.00	2.598	66.00
34/68/NA	2.598	66.00	2.677	68.00
35/70/NA	2.677	68.00	2.756	70.00
36/72/NA	2.756	70.00	2.835	72.00
37/74/NA	2.835	72.00	2.913	74.00
38/76/NA	2.913	74.00	2.992	76.00
39/78/NA	2.992	76.00	3.071	78.00
40/80/NA	3.071	78.00	3.150	80.00

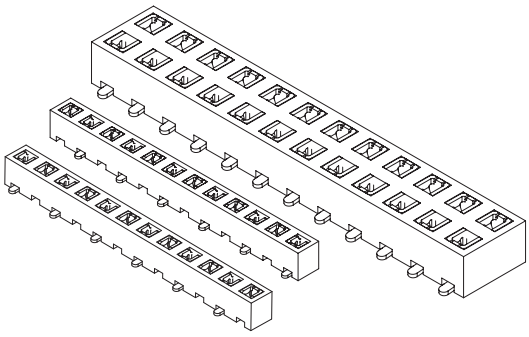
** Dimension 'B' as shown are for 'FFK', Consult factory for other termination.

SULLINS

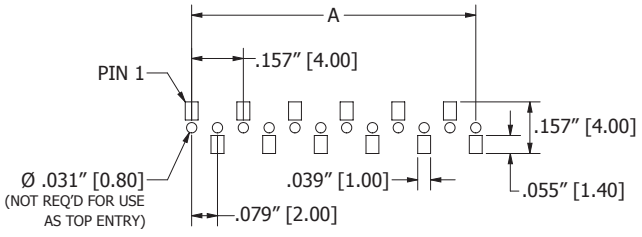
.079" [2.00 mm] Contact Centers, Top/Bottom Entry SMT Female Headers

SPECIFICATIONS

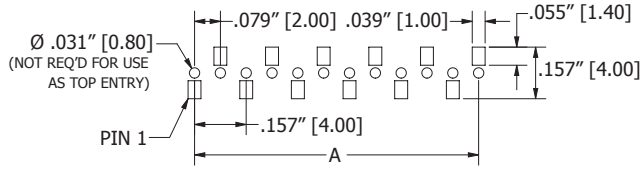
- Insulator Material: Nylon, UL 94V-0
- Contact Resistance: 20 milli Ohms Max.
- Current Rating: 2 Amps
- Dielectric Withstanding: 500 VAC
- Insulation Resistance: 5000 Megohms Min.
- Operating Temperature: -40°C to +105°C
- Processing Temperature: 230°C Max. for 60 seconds, (260°C Max. for 10 seconds)



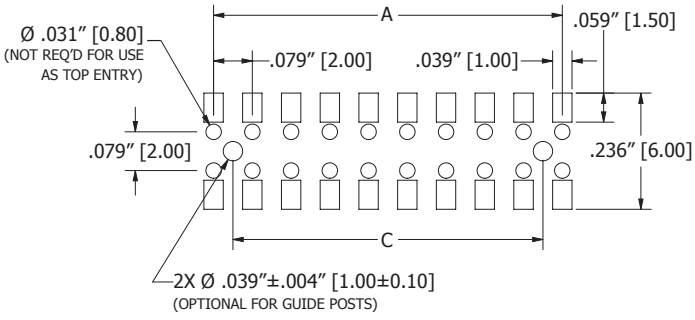
RECOMMENDED PCB LAYOUT



SFM230-NPPN-S_ _-SC-BK

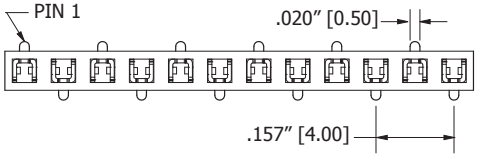


SFM230-NPPN-S_ _-SD-BK

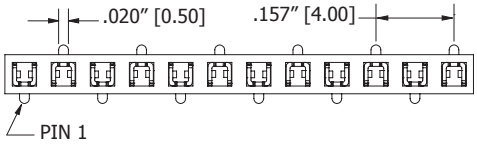


SFM230-NPPN-D_ _-S_-BK

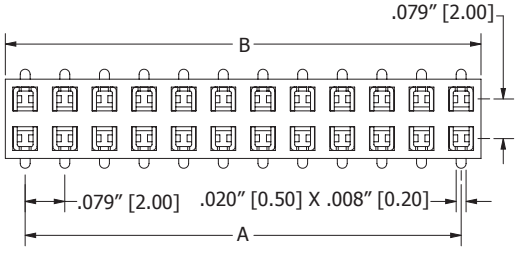
DIMENSIONS



SFM230-NPPN-S_ _-SC-BK
(STANDARD)



SFM230-NPPN-S_ _-SD-BK
(OPPOSITE BEND, APPLICABLE ON EVEN PIN COUNTS)



SFM230-NPPN-D_ _-S_-BK

.079" [2.00 mm] Contact Centers, Top/Bottom Entry SMT Female Headers

PART NUMBER OPTIONS

SFM230 - N P P N - D __ - SM - BK

SERIES
SFM230 = Female Header W/2.30 mm Insulator Height

INSULATOR MATERIAL
N = Nylon

CONTACT MATERIAL
P = Phosphor Bronze

CONTACT FINISH - RoHS Compliant
P = Gold Flash Overall

CONTACT CENTERS
N = .079" [2.00 mm]

COLOR
BK = Black

TERMINATION TYPE (See Opposite Page)
SC = Surface Mount, Standard (Single Row)
SD = Surface Mount, Opposite Bend, Applicable on Even pin Counts (Single Row)
SM = Surface Mount without Guide Posts (Dual Row)
SP = Surface Mount with Guide Posts (Dual Row)

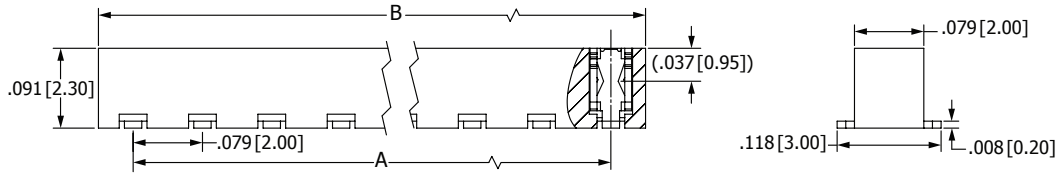
NUMBER OF CONTACT POSITIONS
(Contacts Per Row, 02 thru 40)

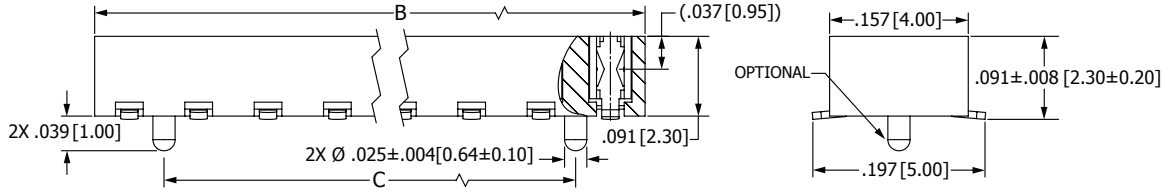
NUMBER OF ROWS
S = Single
D = Dual

DIMENSIONS

Dimensions in [ ] are in millimeters, all others are in inches.

Single Row





Dual Row

NUMBER OF CONTACTS SINGLE/DUAL	A		B		C	
	in	mm	in	mm	in	mm
02/04*	0.079	2.00	0.157	4.00	N/A	N/A
03/06	0.157	4.00	0.236	6.00	0.079	2.00
04/08	0.236	6.00	0.315	8.00	0.157	4.00
05/10	0.315	8.00	0.394	10.00	0.236	6.00
06/12	0.394	10.00	0.472	12.00	0.315	8.00
07/14	0.472	12.00	0.551	14.00	0.394	10.00
08/16	0.551	14.00	0.630	16.00	0.472	12.00
09/18	0.630	16.00	0.709	18.00	0.551	14.00
10/20	0.709	18.00	0.787	20.00	0.630	16.00
11/22	0.787	20.00	0.866	22.00	0.709	18.00
12/24	0.866	22.00	0.945	24.00	0.787	20.00
13/26	0.945	24.00	1.024	26.00	0.866	22.00
14/28	1.024	26.00	1.102	28.00	0.945	24.00
15/30	1.102	28.00	1.181	30.00	1.024	26.00
16/32	1.181	30.00	1.260	32.00	1.102	28.00
17/34	1.260	32.00	1.339	34.00	1.181	30.00
18/36	1.339	34.00	1.417	36.00	1.260	32.00
19/38	1.417	36.00	1.496	38.00	1.339	34.00
20/40	1.496	38.00	1.575	40.00	1.417	36.00
21/42	1.575	40.00	1.654	42.00	1.496	38.00

NUMBER OF CONTACTS SINGLE/DUAL	A		B		C	
	in	mm	in	mm	in	mm
22/44	1.654	42.00	1.732	44.00	1.575	40.00
23/46	1.732	44.00	1.811	46.00	1.654	42.00
24/48	1.811	46.00	1.890	48.00	1.732	44.00
25/50	1.890	48.00	1.969	50.00	1.811	46.00
26/52	1.969	50.00	2.047	52.00	1.890	48.00
27/54	2.047	52.00	2.126	54.00	1.969	50.00
28/56	2.126	54.00	2.205	56.00	2.047	52.00
29/58	2.205	56.00	2.283	58.00	2.126	54.00
30/60	2.283	58.00	2.362	60.00	2.205	56.00
31/62	2.362	60.00	2.441	62.00	2.283	58.00
32/64	2.441	62.00	2.520	64.00	2.362	60.00
33/66	2.520	64.00	2.598	66.00	2.441	62.00
34/68	2.598	66.00	2.677	68.00	2.520	64.00
35/70	2.677	68.00	2.756	70.00	2.598	66.00
36/72	2.756	70.00	2.835	72.00	2.677	68.00
37/74	2.835	72.00	2.913	74.00	2.756	70.00
38/76	2.913	74.00	2.992	76.00	2.835	72.00
39/78	2.992	76.00	3.071	78.00	2.913	74.00
40/80	3.071	78.00	3.150	80.00	2.992	76.00

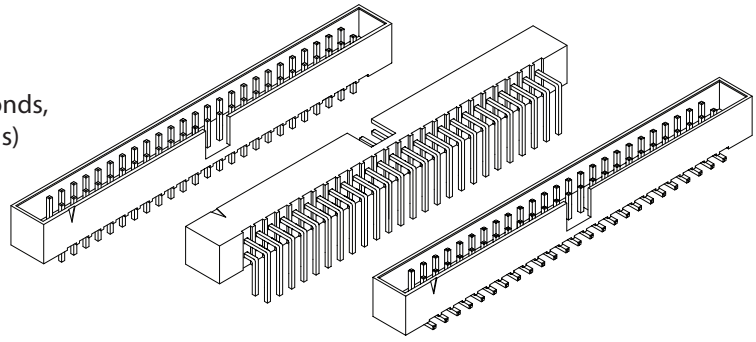
* Not available with guide posts.

SULLINS

.079" [2.00 mm] Contact Centers, Shrouded (Box) Headers, Straight/Right Angle/SMT - SBH Series
Mates with SFH21 series (See opposite page)

SPECIFICATIONS

- Centered Polarizing Notch
- Operating Temperature: -40°C to +105°C
- Processing Temperature: 230°C Max. for 60 seconds, (260°C Max. 10 seconds)
- UL Flammability Rating: 94V-0
- Contact Resistance: 20 milli Ohms Max.
- Current Rating: 2 Amps
- Dielectric Withstanding: 500 VAC
- Insulation Resistance: 5000 Megohms



PART NUMBER OPTIONS

SBH21 - N B P N - D 10 - ST - BK

SERIES
SBH21 = Box Header, .079" [2.00 mm] Contact Centers by .079" [2.00 mm] Row Spacing

INSULATOR MATERIAL
N = Nylon

CONTACT MATERIAL
B = Brass

CONTACT FINISH - RoHS Compliant
P = Gold Flash Overall

CONTACT CENTERS
N = .079" [2.00 mm]

NUMBER OF ROWS
D = Dual Row

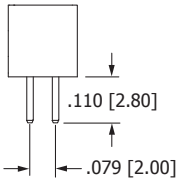
NUMBER OF CONTACT POSITIONS (Pins per Row)
03 thru 18, 20, 22, 25, 30, 32, 34

TERMINATION TYPE
ST = Straight
RA = Right Angle
SM = Surface Mount

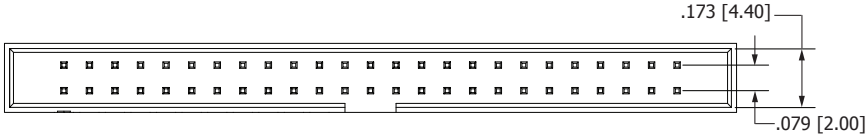
COLOR
BK = Black

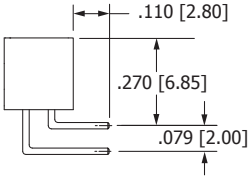
DIMENSIONS **For complete drawings, go to www.sullinscorp.com or e-mail techsupport@sullinscorp.com**

Dimensions in [ ] are in millimeters, all others are in inches.

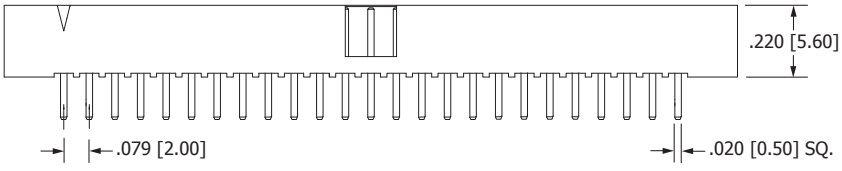


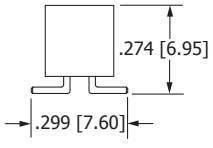
STRAIGHT (ST)
Example P/N: SBH21-NBPN-D20-ST-BK



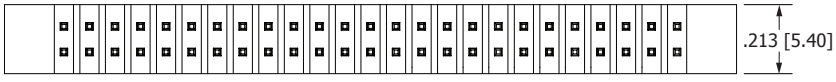


RIGHT ANGLE (RA)
Example P/N: SBH21-NBPN-D20-RA-BK





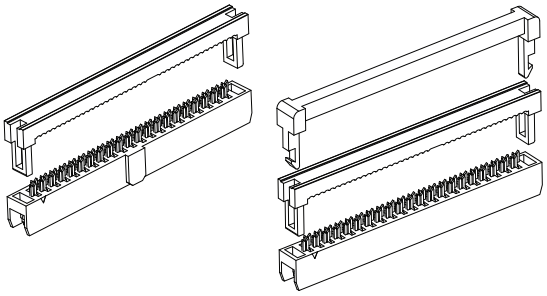
SURFACE MOUNT (SM)
Example P/N: SBH21-NBPN-D20-SM-BK



.079" [2.00 mm]Contact Centers, IDC Sockets, Insulation Displacement With or Without Strain Relief- SFH Series Mates with SBH21 series (See opposite page)

SPECIFICATIONS

- Centered Polarizing Key Optional
- Operating Temperature: -45°C to +105°C
- UL Flammability Rating: 94V-0
- Current Rating: 1 Amp
- Dielectric Withstanding: 500 VAC
- Insulation Resistance: 1000 Megohms



PART NUMBER OPTIONS

SFH21 - P P P N - D 10 - ID - BK - M181

SERIES
SFH21 = IDC Socket Without Strain Relief, .079" [2.00 mm] Contact Centers by .079" [2.00 mm] Row Spacing
SFH213 = IDC Socket With Strain Relief, .079" [2.00 mm] Contact Centers by .079" [2.00 mm] Row Spacing

INSULATOR MATERIAL
P = PBT

CONTACT MATERIAL
P = Phosphor Bronze

CONTACT FINISH - RoHS Compliant
P = Gold Flash Overall
V = Gold Flash on Contact Surface, Nickel on Termination

MODIFICATION (Omit for Standard)
M181 = Without Centered Polarizing Key

COLOR
BK = Black

TERMINATION TYPE
ID = Insulation Displacement

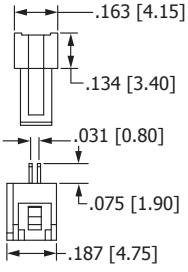
NUMBER OF CONTACT POSITIONS
03 thru 13, 15, 17, 20, 22, 25, 30, 34 (SFH21)
05 thru 13, 15, 17, 20, 22, 25 (SFH213)

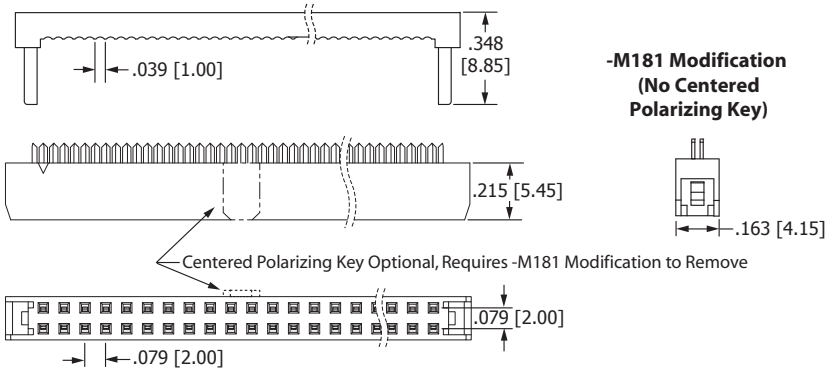
NUMBER OF ROWS
D = Dual Row

CONTACT CENTERS
N = .079" [2.00 mm]

DIMENSIONS **For complete drawings, go to www.sullinscorp.com or e-mail techsupport@sullinscorp.com**

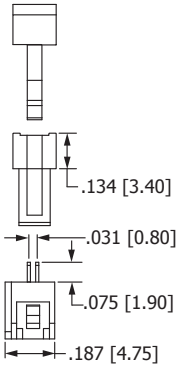
Dimensions in [ ] are in millimeters, all others are in inches.

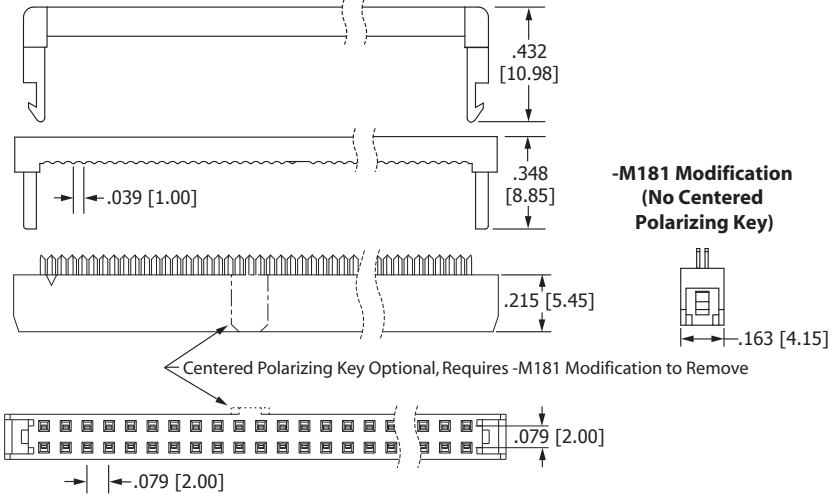




INSULATION DISPLACEMENT (ID) without Strain Relief, requires SFH21

Example P/N: SFH21-PPPN-D20-ID-BK





INSULATION DISPLACEMENT (ID) with Strain Relief, requires SFH213

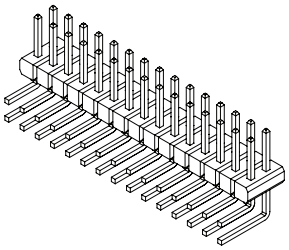
Example P/N: SFH213-PPPN-D20-ID-BK

SULLINS

.100" [2.54 mm] Contact Centers, Male Breakaway Headers, Straight/Right Angle/SMT

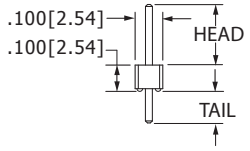
SPECIFICATIONS

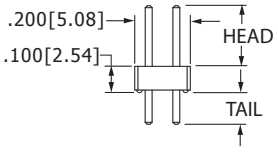
- 3 Amps current rating
- UL Flammability Rating: 94V-0
- Insulator: PBT, PA9T, PPS, PEEK
- Contact Material: Phosphor Bronze
- See jumpers section for options available
- Consult Factory for PCB Layout

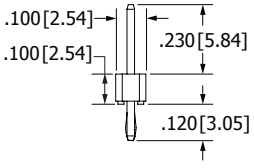


TERMINATION TYPES

STRAIGHT TERMINATIONS







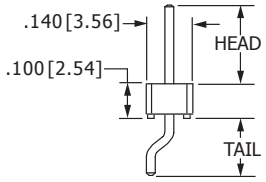
RETENTION LEAD MOUNTING
(EXAMPLE P/N: PBC36SAAR)

P/N CODE	HEAD	TAIL
AA	.230 [5.84]	.120 [3.05]
AB	.230 [5.84]	.230 [5.84]
AC	.230 [5.84]	.320 [8.13]
AD	.230 [5.84]	.420 [10.67]
AE	.23 [5.84]	.520 [13.21]
AF	.230 [5.84]	.620 [15.75]
AG	.230 [5.84]	.720 [18.29]
AH	.230 [5.84]	.820 [20.83]
AI*	.230 [5.84]	.900 [22.86]
AJ*	.230 [5.84]	1.000 [25.40]
AK*	.230 [5.84]	.035 [0.89]
FA	.318 [8.08]	.120 [3.05]
FB	.318 [8.08]	.220 [5.59]
FC	.318 [8.08]	.320 [8.13]
FD	.318 [8.08]	.420 [10.67]
FE	.318 [8.08]	.520 [13.21]
FF*	.318 [8.08]	.620 [15.75]
FG*	.318 [8.08]	.710 [18.03]
FH*	.318 [8.08]	.810 [20.57]
FI*	.318 [8.08]	.910 [23.11]
FJ*	.318 [8.08]	.050 [1.27]
ZA	.120 [3.05]	.120 [3.05]
ZB*	.120 [3.05]	.095 [2.41]
ZC	.120 [3.05]	.260 [6.60]
ZD	.120 [3.05]	.610 [15.49]
ZI*	.520 [13.21]	.110 [2.79]
ZJ*	.720 [18.29]	.110 [2.79]
ZO*	.820 [20.83]	.110 [2.79]
ZQ*	1.020 [25.91]	.110 [2.79]
ZR*	1.220 [30.99]	.110 [2.79]

*Consult factory for availability.

SMT TERMINATIONS

Single Row with -M89, -M511, -M308 Modification Code

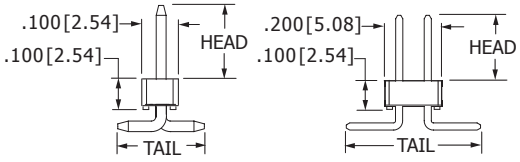


P/N CODE	HEAD	TAIL
BS	.230 [5.84]	.180 [4.57]
GS	.318 [8.08]	.180 [4.57]
ZC*	.120 [3.05]	.180 [4.57]
ZU*	.420 [10.67]	.180 [4.57]

*Consult factory for availability.

SMT TERMINATIONS

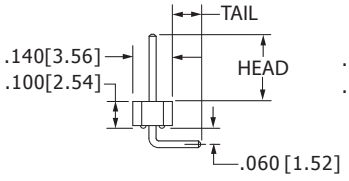
Single or Dual Row with -M30, -M508, -M596 Modification Code



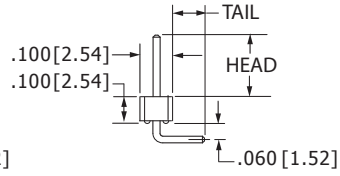
P/N CODE	HEAD	SINGLE ROW TAIL	DUAL ROW TAIL
AB	.230 [5.84]	.320 [8.13]	.420 [10.67]
FB	.318 [8.08]	.300 [7.62]	.400 [10.16]
ZS*	.120 [3.05]	.200 [5.08]	.300 [7.62]
ZT*	.420 [10.67]	.200 [5.08]	.300 [7.62]

*Consult factory for availability.

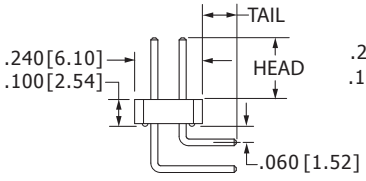
RIGHT ANGLE TERMINATIONS



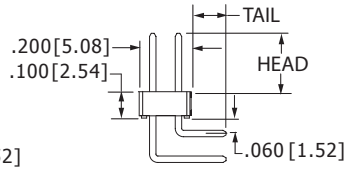
RIGHT ANGLE (Standard)



RIGHT ANGLE SINGLE (Narrow) -M71, -M509, -M595 Modification Code



RIGHT ANGLE (Standard)



RIGHT ANGLE DUAL (Narrow) -M71, -M509, -M595 Modification Code

P/N CODE	HEAD	TAIL	-M71, -M509 , -M595 TAIL
BA	.230 [5.84]	.100 [2.54]	.120 [3.05]
BB	.230 [5.84]	.200 [5.08]	.220 [5.59]
BC	.230 [5.84]	.300 [7.62]	.320 [8.13]
BD	.230 [5.84]	.400 [10.16]	.420 [10.67]
BE	.230 [5.84]	.500 [12.70]	.520 [13.21]
BF**	.230 [5.84]	.600 [15.24]	.620 [15.75]
BG**	.230 [5.84]	.700 [17.78]	.720 [18.29]
BH*	.230 [5.84]	.800 [20.32]	.820 [20.83]
BI*	.230 [5.84]	.900 [22.86]	.920 [23.37]
BJ*	.230 [5.84]	1.000 [25.40]	1.020 [25.91]
GA	.318 [8.08]	.100 [2.54]	.120 [3.05]
GB	.318 [8.08]	.200 [5.08]	.220 [5.59]
GC**	.318 [8.08]	.300 [7.62]	.320 [8.13]
GD**	.318 [8.08]	.400 [10.16]	.420 [10.67]
GE*	.318 [8.08]	.600 [15.24]	.620 [15.75]
GF*	.318 [8.08]	.800 [20.32]	.820 [20.83]
DA**	.120 [3.05]	.120 [3.05]	.140 [3.56]

*Consult factory for availability.
**Consult factory for availability in Dual Readout.

.100" [2.54 mm] Contact Centers, Male Breakaway Headers, Straight/Right Angle/SMT

PART NUMBER OPTIONS

P B C 36 D AA N - Mxxx

MATERIALS (INSULATOR/CONTACT)
- P = Black PBT or Equivalent/Phosphor Bronze
  Operating Temperature: -65°C to +125°C
  Processing Temperature: Manual/Wave Soldering
- G = Black PA9T/Phosphor Bronze
  Operating Temperature: -65°C to +150°C
  Processing Temperature: 260°C Max. for 10 sec.
- *R = Green PPS/Phosphor Bronze (Consult Factory)
  Operating Temperature: -65°C to +200°C
  Processing Temperature: 260°C Max. for 20 sec.
- *Q = Tan PEEK/Phosphor Bronze (Consult Factory)
  Operating Temperature: -65°C to +250°C
  Processing Temperature: 260°C Max. for 20 sec.

*Available with overall gold plating ('M') only

CONTACT FINISH - RoHS Compliant
All platings are Lead Free and have .000050" Nickel underplate

	Contact Surface	Termination
B =	.000010" Gold	.000100" Pure Tin, Matte
C =	.000030" Gold	.000100" Pure Tin, Matte
E =	.000100" Pure Tin, Matte, Overall	
G =	.000010" Gold	.000005" Gold
S =	.000010" Gold	.000010" Gold Overall
M =	.000030" Gold	.000010" Gold Overall

CONTACT CENTERS
- C = .100" [2.54 mm]

NUMBER OF POSITIONS
01 Thru 36 (eg. 36 Dual = 72 Contacts)

READOUT (Opposite Page)
- S = Single
- D = Dual

MODIFICATION CODE (Consult Factory)
OMIT FOR STANDARD
- -M500 = Brown PPS**
- -M594 = White PA9T***
- -M30 = SMT, Vertical
  (M508 for brown PPS**, M596 for white PA9T***)
- -M89 = SMT, Horizontal
  (M511 for brown PPS**, M308 for white PA9T***)
  Available with single row only
- -M71 = Narrow Body
  (M509 for brown PPS**, M595 for white PA9T***)
  Available with Right Angle Only

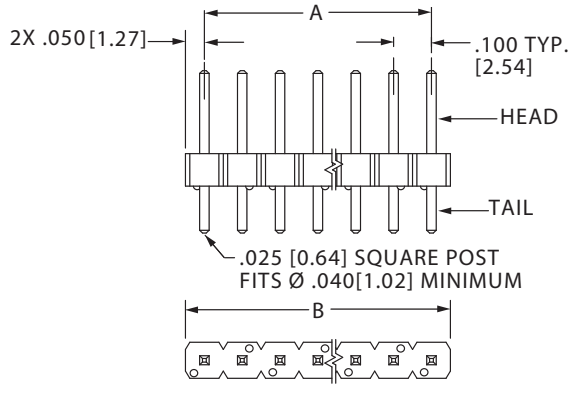
**Brown PPS available with material code 'R' only
***White PA9T available with material code 'G' only

MOUNTING STYLE
- N = No Mounting
- R = Retention Lead (Single Row & 'AA' Termination Only)

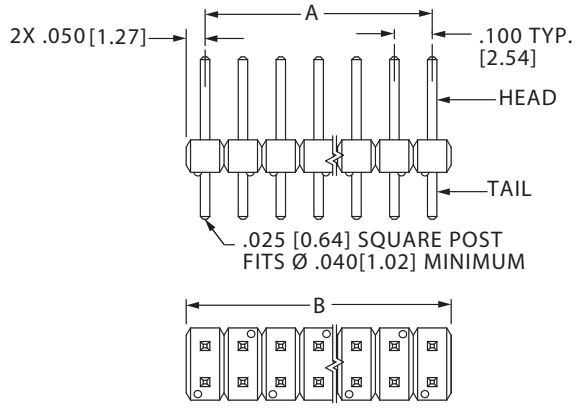
TERMINATION TYPE (Opposite Page)
- **Straight** = AA, AB, AC, AD, AE, AF, AG, AH, AI, AJ, AK, FA, FB, FC, FD, FE, FF, FG, FH, FI, FJ, ZA, ZB, ZC, ZD, ZI, ZJ, ZO, ZQ, ZR
- **Right Angle** = BA, BB, BC, BD, BE, BF, BG, BH, BI, BJ GA, GB, GC, GD, GE, GF, DA
- **Right Angle with -M71, -M509, -M595 Modification Code** = BA, BB, BC, BD, BE, BH, BI, BJ, GA, GB, GE, GF
- **SMT with -M89, -M511, -M308 Modification Code** = BS, GS, ZC, ZU
- **SMT with -M30, -M508, -M596 Modification Code** = AB, FB, ZS, ZT

DIMENSIONS

Dimensions in [ ] are in millimeters, all others are in inches.



SINGLE READOUT, STRAIGHT TAIL SHOWN



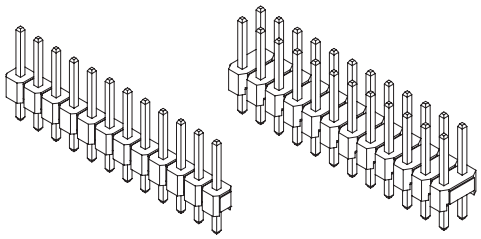
DUAL READOUT, STRAIGHT TAIL SHOWN

PART NUMBER	NUMBER OF CONTACTS SINGLE/DUAL	A		B	
		in	mm	in	mm
__ C01S(D) ___	01/02	0.000	0.00	0.100	2.54
__ C02S(D) ___	02/04	0.100	2.54	0.200	5.08
__ C03S(D)___	03/06	0.200	5.08	0.300	7.62
__ C04S(D) ___	04/08	0.300	7.62	0.400	10.16
__ C05S(D) ___	05/10	0.400	10.16	0.500	12.70
__ C06S(D) ___	06/12	0.500	12.70	0.600	15.24
__ C07S(D) ___	07/14	0.600	15.24	0.700	17.78
__ C08S(D) ___	08/16	0.700	17.78	0.800	20.32
__ C09S(D) ___	09/18	0.800	20.32	0.900	22.86
__ C10S(D) ___	10/20	0.900	22.86	1.000	25.40
__ C11S(D) ___	11/22	1.000	25.40	1.100	27.94
__ C12S(D) ___	12/24	1.100	27.94	1.200	30.48
__ C13S(D) ___	13/26	1.200	30.48	1.300	33.02
__ C14S(D) ___	14/28	1.300	33.02	1.400	35.56
__ C15S(D) ___	15/30	1.400	35.56	1.500	38.10
__ C16S(D) ___	16/32	1.500	38.10	1.600	40.64
__ C17S(D) ___	17/34	1.600	40.64	1.700	43.18
__ C18S(D) ___	18/36	1.700	43.18	1.800	45.72
__ C19S(D) ___	19/38	1.800	45.72	1.900	48.26
__ C20S(D) ___	20/40	1.900	48.26	2.000	50.80
__ C21S(D) ___	21/42	2.000	50.80	2.100	53.34
__ C22S(D) ___	22/44	2.100	53.34	2.200	55.88
__ C23S(D) ___	23/46	2.200	55.88	2.300	58.42
__ C24S(D) ___	24/48	2.300	58.42	2.400	60.96
__ C25S(D) ___	25/50	2.400	60.96	2.500	63.50
__ C26S(D) ___	26/52	2.500	63.50	2.600	66.04
__ C27S(D) ___	27/54	2.600	66.04	2.700	68.58
__ C28S(D) ___	28/56	2.700	68.58	2.800	71.12
__ C29S(D) ___	29/58	2.800	71.12	2.900	73.66
__ C30S(D) ___	30/60	2.900	73.66	3.000	76.20
__ C31S(D) ___	31/62	3.000	76.20	3.100	78.74
__ C32S(D) ___	32/64	3.100	78.74	3.200	81.28
__ C33S(D) ___	33/66	3.200	81.28	3.300	83.82
__ C34S(D) ___	34/68	3.300	83.82	3.400	86.36
__ C35S(D) ___	35/70	3.400	86.36	3.500	88.90
__ C36S(D) ___	36/72	3.500	88.90	3.600	91.44

.100" [2.54 mm] Contact Centers, Male Breakaway Headers, Straight

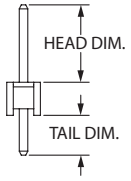
SPECIFICATIONS

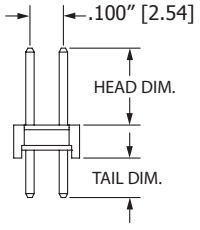
- 3 Amps current rating
- UL Flammability Rating: 94V-0
- Insulator Material: PBT, Nylon, LCP
- Contact Material: Brass



TERMINATION TYPES

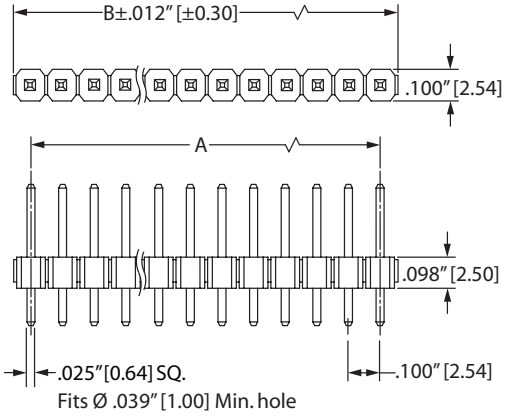
STRAIGHT TERMINATIONS



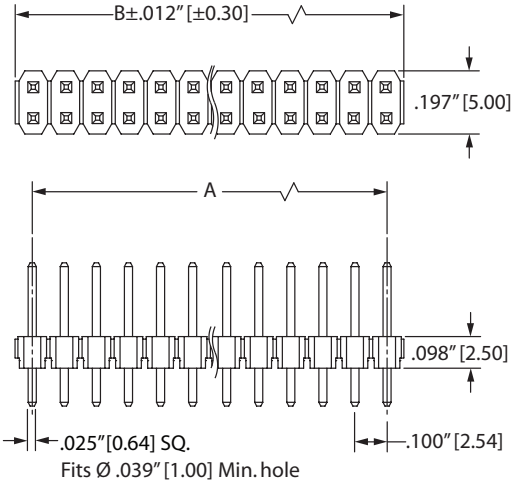


P/N CODE	HEAD	TAIL
AA	0.230˝ [5.84]	0.120˝ [3.05]
AB	0.230˝ [5.84]	0.230˝ [5.84]
AC	0.230˝ [5.84]	0.320˝ [8.13]
AD	0.230˝ [5.84]	0.420˝ [10.67]
AE	0.230˝ [5.84]	0.520˝ [13.21]
AF	0.230˝ [5.84]	0.620˝ [15.75]
AG	0.230˝ [5.84]	0.720˝ [18.29]
AH	0.230˝ [5.84]	0.820˝ [20.83]
AI	0.230˝ [5.84]	0.900˝ [22.86]
AJ	0.230˝ [5.84]	1.000˝ [25.40]
AK	0.230˝ [5.84]	0.035˝ [0.89]
FA	0.318˝ [8.08]	0.120˝ [3.05]
FB	0.318˝ [8.08]	0.220˝ [5.59]
FC	0.318˝ [8.08]	0.320˝ [8.13]
FD	0.318˝ [8.08]	0.420˝ [10.67]
FE	0.318˝ [8.08]	0.520˝ [13.21]
FF	0.318˝ [8.08]	0.620˝ [15.75]
FG	0.318˝ [8.08]	0.710˝ [18.03]
FH	0.318˝ [8.08]	0.810˝ [20.57]
FI	0.318˝ [8.08]	0.910˝ [23.11]
FJ	0.318˝ [8.08]	0.050˝ [1.27]
ZA	0.120˝ [3.05]	0.120˝ [3.05]
ZB	0.120˝ [3.05]	0.095˝ [2.41]
ZC	0.120˝ [3.05]	0.260˝ [6.60]
ZD	0.120˝ [3.05]	0.610˝ [15.49]
ZI	0.520˝ [13.21]	0.110˝ [2.79]
ZJ	0.720˝ [18.29]	0.110˝ [2.79]
ZO	0.820˝ [20.83]	0.110˝ [2.79]
ZQ	1.020˝ [25.91]	0.110˝ [2.79]
ZR	1.220˝ [30.99]	0.110˝ [2.79]

DIMENSIONS



SINGLE READOUT, STRAIGHT TAIL SHOWN



DUAL READOUT, STRAIGHT TAIL SHOWN

.100" [2.54 mm] Contact Centers, Male Breakaway Headers, Straight

PART NUMBER OPTIONS

PR B C 002 S AA N - RC

MATERIALS (INSULATOR/CONTACT)

PR = PBT/BRASS
Operating Temperature: -40°C to +105°C
Processing Temperature: Wave/Manual Soldering
NR = NYLON/BRASS
Operating Temperature: -40°C to +105°C
Processing Temperature: Wave/Manual Soldering
LR = LCP/BRASS
Operating Temperature: -40°C to +125°C
Processing Temperature: 230°C Max. for 60 sec.
(260°C Max. for 10 sec.)

CONTACT FINISH - RoHS Compliant
All platings are Lead Free and have .000050" Nickel underplate

	Contact Surface	Termination
B =	.000010" Gold	.000100" Pure Tin, Matte
C =	.000030" Gold	.000100" Pure Tin, Matte
E =	Tin Overall	
P =	Gold Flash Overall	

TERMINATION TYPE
AA, AB, AC, AD, AE, AF, AG, AH, AI, AJ, AK, FA, FB, FC, FD, FE, FF, FG, FH, FI, FJ, ZA, ZB, ZC, ZD, ZI, ZJ, ZO, ZQ, ZR

READOUT (Opposite Page)
S = Single
D = Dual

NUMBER OF POSITIONS
Contacts Per row, 002 Thru 040

CONTACT CENTERS
C = .100" [2.54 mm]

PART NUMBER	A		B	
	in	mm	in	mm
_ R _C002S_ _ _-RC	0.100	2.54	0.200	5.08
_ R _C003S_ _ _-RC	0.200	5.08	0.300	7.62
_ R _C004S_ _ _-RC	0.300	7.62	0.400	10.16
_ R _C005S_ _ _-RC	0.400	10.16	0.500	12.70
_ R _C006S_ _ _-RC	0.500	12.70	0.600	15.24
_ R _C007S_ _ _-RC	0.600	15.24	0.700	17.78
_ R _C008S_ _ _-RC	0.700	17.78	0.800	20.32
_ R _C009S_ _ _-RC	0.800	20.32	0.900	22.86
_ R _C010S_ _ _-RC	0.900	22.86	1.000	25.40
_ R _C011S_ _ _-RC	1.000	25.40	1.100	27.94
_ R _C012S_ _ _-RC	1.100	27.94	1.200	30.48
_ R _C013S_ _ _-RC	1.200	30.48	1.300	33.02
_ R _C014S_ _ _-RC	1.300	33.02	1.400	35.56
_ R _C015S_ _ _-RC	1.400	35.56	1.500	38.10
_ R _C016S_ _ _-RC	1.500	38.10	1.600	40.64
_ R _C017S_ _ _-RC	1.600	40.64	1.700	43.18
_ R _C018S_ _ _-RC	1.700	43.18	1.800	45.72
_ R _C019S_ _ _-RC	1.800	45.72	1.900	48.26
_ R _C020S_ _ _-RC	1.900	48.26	2.000	50.80
_ R _C021S_ _ _-RC	2.000	50.80	2.100	53.34
_ R _C022S_ _ _-RC	2.100	53.34	2.200	55.88
_ R _C023S_ _ _-RC	2.200	55.88	2.300	58.42
_ R _C024S_ _ _-RC	2.300	58.42	2.400	60.96
_ R _C025S_ _ _-RC	2.400	60.96	2.500	63.50
_ R _C026S_ _ _-RC	2.500	63.50	2.600	66.04
_ R _C027S_ _ _-RC	2.600	66.04	2.700	68.58
_ R _C028S_ _ _-RC	2.700	68.58	2.800	71.12
_ R _C029S_ _ _-RC	2.800	71.12	2.900	73.66
_ R _C030S_ _ _-RC	2.900	73.66	3.000	76.20
_ R _C031S_ _ _-RC	3.000	76.20	3.100	78.74
_ R _C032S_ _ _-RC	3.100	78.74	3.200	81.28
_ R _C033S_ _ _-RC	3.200	81.28	3.300	83.82
_ R _C034S_ _ _-RC	3.300	83.82	3.400	86.36
_ R _C035S_ _ _-RC	3.400	86.36	3.500	88.90
_ R _C036S_ _ _-RC	3.500	88.90	3.600	91.44
_ R _C037S_ _ _-RC	3.600	91.44	3.700	93.98
_ R _C038S_ _ _-RC	3.700	93.98	3.800	96.52
_ R _C039S_ _ _-RC	3.800	96.52	3.900	99.06
_ R _C040S_ _ _-RC	3.900	99.06	4.000	101.60

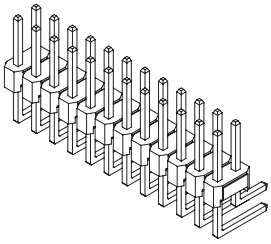
PART NUMBER	A		B	
	in	mm	in	mm
_ R _C002D_ _ _-RC	0.100	2.54	0.200	5.08
_ R _C003D_ _ _-RC	0.200	5.08	0.300	7.62
_ R _C004D_ _ _-RC	0.300	7.62	0.400	10.16
_ R _C005D_ _ _-RC	0.400	10.16	0.500	12.70
_ R _C006D_ _ _-RC	0.500	12.70	0.600	15.24
_ R _C007D_ _ _-RC	0.600	15.24	0.700	17.78
_ R _C008D_ _ _-RC	0.700	17.78	0.800	20.32
_ R _C009D_ _ _-RC	0.800	20.32	0.900	22.86
_ R _C010D_ _ _-RC	0.900	22.86	1.000	25.40
_ R _C011D_ _ _-RC	1.000	25.40	1.100	27.94
_ R _C012D_ _ _-RC	1.100	27.94	1.200	30.48
_ R _C013D_ _ _-RC	1.200	30.48	1.300	33.02
_ R _C014D_ _ _-RC	1.300	33.02	1.400	35.56
_ R _C015D_ _ _-RC	1.400	35.56	1.500	38.10
_ R _C016D_ _ _-RC	1.500	38.10	1.600	40.64
_ R _C017D_ _ _-RC	1.600	40.64	1.700	43.18
_ R _C018D_ _ _-RC	1.700	43.18	1.800	45.72
_ R _C019D_ _ _-RC	1.800	45.72	1.900	48.26
_ R _C020D_ _ _-RC	1.900	48.26	2.000	50.80
_ R _C021D_ _ _-RC	2.000	50.80	2.100	53.34
_ R _C022D_ _ _-RC	2.100	53.34	2.200	55.88
_ R _C023D_ _ _-RC	2.200	55.88	2.300	58.42
_ R _C024D_ _ _-RC	2.300	58.42	2.400	60.96
_ R _C025D_ _ _-RC	2.400	60.96	2.500	63.50
_ R _C026D_ _ _-RC	2.500	63.50	2.600	66.04
_ R _C027D_ _ _-RC	2.600	66.04	2.700	68.58
_ R _C028D_ _ _-RC	2.700	68.58	2.800	71.12
_ R _C029D_ _ _-RC	2.800	71.12	2.900	73.66
_ R _C030D_ _ _-RC	2.900	73.66	3.000	76.20
_ R _C031D_ _ _-RC	3.000	76.20	3.100	78.74
_ R _C032D_ _ _-RC	3.100	78.74	3.200	81.28
_ R _C033D_ _ _-RC	3.200	81.28	3.300	83.82
_ R _C034D_ _ _-RC	3.300	83.82	3.400	86.36
_ R _C035D_ _ _-RC	3.400	86.36	3.500	88.90
_ R _C036D_ _ _-RC	3.500	88.90	3.600	91.44
_ R _C037D_ _ _-RC	3.600	91.44	3.700	93.98
_ R _C038D_ _ _-RC	3.700	93.98	3.800	96.52
_ R _C039D_ _ _-RC	3.800	96.52	3.900	99.06
_ R _C040D_ _ _-RC	3.900	99.06	4.000	101.60

SULLINS

.100" [2.54 mm] Contact Centers, Male Breakaway Headers, Right Angle/SMT

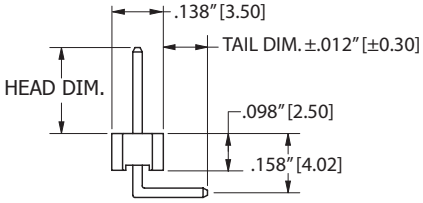
SPECIFICATIONS

- 3 Amps current rating
- UL Flammability Rating : 94V-0
- Insulator Material : PBT, Nylon, LCP
- Contact Material : Brass

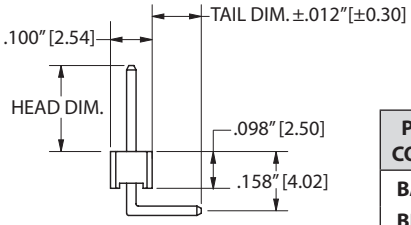


TERMINATIONS TYPES

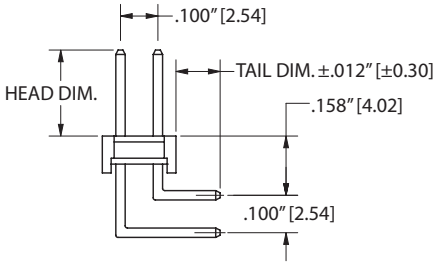
RIGHT ANGLE TERMINATIONS



Single Row (Standard)
(EXAMPLE P/N: NRBC012SBAN-RC)



Single Row (Narrow)
-M71 Modification Code
(EXAMPLE P/N: NRBC012SBAN-M71RC)



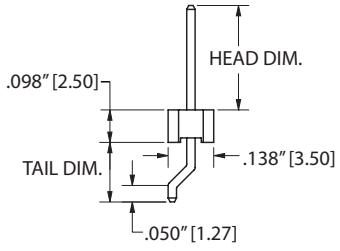
Dual Row (Narrow) -M71 Modification Code
(EXAMPLE P/N: NRBC012DBAN-M71RC)

P/N CODE	HEAD	TAIL	-M71 TAIL
BA	.230" [5.84]	.100" [2.54]	.120" [3.05]
BB	.230" [5.84]	.200" [5.08]	.220" [5.59]
BC	.230" [5.84]	.300" [7.62]	.320" [8.13]
BD	.230" [5.84]	.400" [10.16]	.420" [10.67]
BE	.230" [5.84]	.500" [12.70]	.520" [13.21]
BF*	.230" [5.84]	.600" [15.24]	.620" [15.75]
BG*	.230" [5.84]	.700" [17.78]	.720" [18.29]
BH	.230" [5.84]	.800" [20.32]	.820" [20.83]
BI	.230" [5.84]	.900" [22.86]	.920" [23.37]
BJ	.230" [5.84]	1.000" [25.40]	1.020" [25.91]
GA	.318" [8.08]	.100" [2.54]	.120" [3.05]
GB	.318" [8.08]	.200" [5.08]	.220" [5.59]
GC*	.318" [8.08]	.300" [7.62]	.320" [8.13]
GD*	.318" [8.08]	.400" [10.16]	.420" [10.67]
GE	.318" [8.08]	.600" [15.24]	.620" [15.75]
GF	.318" [8.08]	.800" [20.32]	.820" [20.83]
DA*	.120" [3.05]	.120" [3.05]	.140" [3.56]

***Consult factory for availability in Dual Readout**

SMT TERMINATIONS

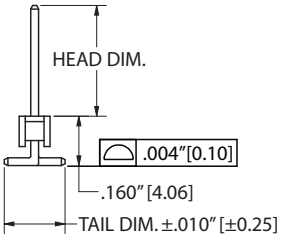
Single Row with -M89 Modification Code
(EXAMPLE P/N: NRBC012SBSN-M89RC)

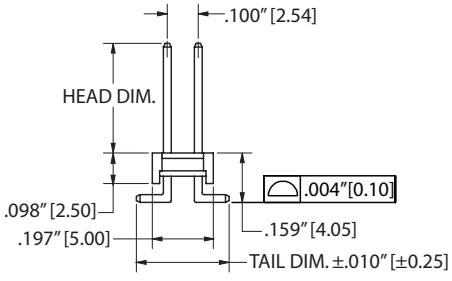


P/N CODE	HEAD	TAIL
BS	.230" [5.84]	.180" [4.57]
GS	.318" [8.08]	.180" [4.57]
ZC	.120" [3.05]	.180" [4.57]
ZU	.420" [10.67]	.180" [4.57]

SMT TERMINATIONS

Single or Dual Row with -M30 Modification Code
(EXAMPLE P/N: NRBC012SABC-M30RC) (EXAMPLE P/N: NRBC012DABN-M30RC)





P/N CODE	HEAD	SINGLE ROW TAIL	DUAL ROW TAIL
AB	.230" [5.84]	.320" [8.13]	.420" [10.67]
FB	.318" [8.08]	.300" [7.62]	.400" [10.16]
ZS	.120" [3.05]	.200" [5.08]	.300" [7.62]
ZT	.420" [10.67]	.200" [5.08]	.300" [7.62]

.100" [2.54 mm] Contact Centers, Male Breakaway Headers, Right Angle/SMT

PART NUMBER OPTIONS

PR B C 002 S BA N - Mxxx RC

MATERIALS (INSULATOR/CONTACT)
PR = PBT/BRASS
Operating Temperature: -40°C to +105°C
Processing Temperature: Wave/Manual Soldering
NR = NYLON/BRASS
Operating Temperature: -40°C to +105°C
Processing Temperature: Wave/Manual Soldering
LR = LCP/BRASS
Operating Temperature: -40°C to +125°C
Processing Temperature: 230°C Max. for 60 seconds, (260°C Max. for 10 seconds)

CONTACT FINISH - RoHS Compliant
All platings are Lead Free and have .000050" Nickel underplate

	Contact Surface	Termination
B =	.000010" Gold	.000100" Pure Tin, Matte
C =	.000030" Gold	.000100" Pure Tin, Matte
E =	Tin Overall	
P =	Gold Flash Overall	

CONTACT CENTERS
C = .100" [2.54 mm]

NUMBER OF POSITIONS
Contacts Per row, 002 Thru 040

MODIFICATION CODE (Consult Factory)
SINGLE ROW OMIT FOR STANDARD ('NR' Material Only)
-M30 = SMT ('NR' & 'LR' Material Only), Vertical
-M89 = SMT ('NR' Material Only), Horizontal
-M71 = Right Angle ('PR', 'NR', 'LR' Material), Narrow Body

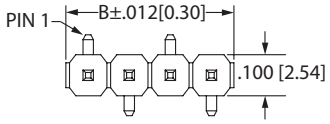
MOUNTING STYLE
N = No Mounting
C = SMT, Single Row (Standard)
D = SMT, Single Row (Opposite Bend)

TERMINATION TYPE
Right Angle = BA, BB, BC, BD, BE, BH, BI, BJ,GA, GB, GE, GF (Single Row or Dual Row)
= BF, BG, GC, GD, DA (Single Row Only)
SMT with -M89 Modification Code
= BS, GS, ZC, ZU (Single Row Only)
SMT with -M30 Modification Code
= AB, FB, ZS, ZT

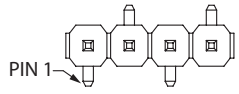
READOUT
S = Single
D = Dual

DIMENSIONS

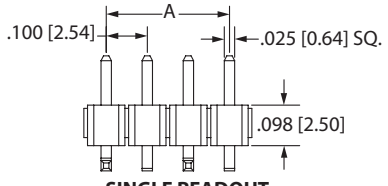
Dimensions in [ ] are in millimeters, all others are in inches.



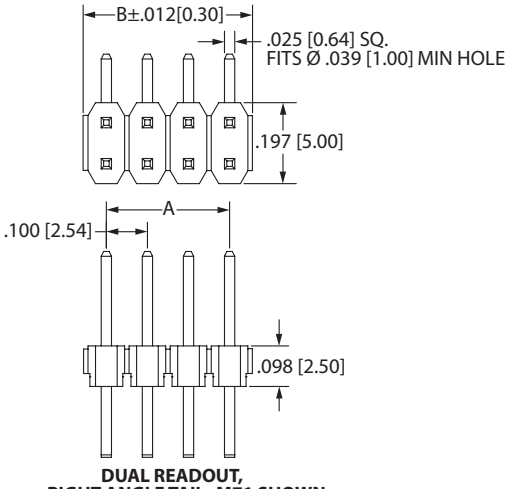
P/N: _R_C_ _ _S_ _C-M30RC (STANDARD)



P/N: _R_C_ _ _S_ _D-M30RC (OPPOSITE BEND, ONLY APPLICABLE ON EVEN PIN COUNTS)



SINGLE READOUT, SMT TAIL -M30 SHOWN

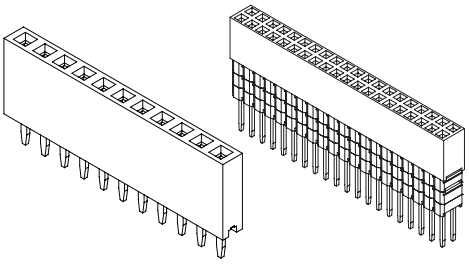


DUAL READOUT, RIGHT ANGLE TAIL -M71 SHOWN

PART NUMBER	A		B	
	in	mm	in	mm
_R_C002_ _ _ _-_ _ _RC	0.100	2.54	0.200	5.08
_R_C003_ _ _ _-_ _ _RC	0.200	5.08	0.300	7.62
_R_C004_ _ _ _-_ _ _RC	0.300	7.62	0.400	10.16
_R_C005_ _ _ _-_ _ _RC	0.400	10.16	0.500	12.70
_R_C006_ _ _ _-_ _ _RC	0.500	12.70	0.600	15.24
_R_C007_ _ _ _-_ _ _RC	0.600	15.24	0.700	17.78
_R_C008_ _ _ _-_ _ _RC	0.700	17.78	0.800	20.32
_R_C009_ _ _ _-_ _ _RC	0.800	20.32	0.900	22.86
_R_C010_ _ _ _-_ _ _RC	0.900	22.86	1.000	25.40
_R_C011_ _ _ _-_ _ _RC	1.000	25.40	1.100	27.94
_R_C012_ _ _ _-_ _ _RC	1.100	27.94	1.200	30.48
_R_C013_ _ _ _-_ _ _RC	1.200	30.48	1.300	33.02
_R_C014_ _ _ _-_ _ _RC	1.300	33.02	1.400	35.56
_R_C015_ _ _ _-_ _ _RC	1.400	35.56	1.500	38.10
_R_C016_ _ _ _-_ _ _RC	1.500	38.10	1.600	40.64
_R_C017_ _ _ _-_ _ _RC	1.600	40.64	1.700	43.18
_R_C018_ _ _ _-_ _ _RC	1.700	43.18	1.800	45.72
_R_C019_ _ _ _-_ _ _RC	1.800	45.72	1.900	48.26
_R_C020_ _ _ _-_ _ _RC	1.900	48.26	2.000	50.80
_R_C021_ _ _ _-_ _ _RC	2.000	50.80	2.100	53.34
_R_C022_ _ _ _-_ _ _RC	2.100	53.34	2.200	55.88
_R_C023_ _ _ _-_ _ _RC	2.200	55.88	2.300	58.42
_R_C024_ _ _ _-_ _ _RC	2.300	58.42	2.400	60.96
_R_C025_ _ _ _-_ _ _RC	2.400	60.96	2.500	63.50
_R_C026_ _ _ _-_ _ _RC	2.500	63.50	2.600	66.04
_R_C027_ _ _ _-_ _ _RC	2.600	66.04	2.700	68.58
_R_C028_ _ _ _-_ _ _RC	2.700	68.58	2.800	71.12
_R_C029_ _ _ _-_ _ _RC	2.800	71.12	2.900	73.66
_R_C030_ _ _ _-_ _ _RC	2.900	73.66	3.000	76.20
_R_C031_ _ _ _-_ _ _RC	3.000	76.20	3.100	78.74
_R_C032_ _ _ _-_ _ _RC	3.100	78.74	3.200	81.28
_R_C033_ _ _ _-_ _ _RC	3.200	81.28	3.300	83.82
_R_C034_ _ _ _-_ _ _RC	3.300	83.82	3.400	86.36
_R_C035_ _ _ _-_ _ _RC	3.400	86.36	3.500	88.90
_R_C036_ _ _ _-_ _ _RC	3.500	88.90	3.600	91.44
_R_C037_ _ _ _-_ _ _RC	3.600	91.44	3.700	93.98
_R_C038_ _ _ _-_ _ _RC	3.700	93.98	3.800	96.52
_R_C039_ _ _ _-_ _ _RC	3.800	96.52	3.900	99.06
_R_C040_ _ _ _-_ _ _RC	3.900	99.06	4.000	101.60

SULLINS

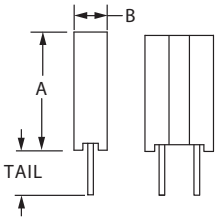
.100" [2.54 mm] Contact Centers, Female Headers, Straight/Right Angle/SMT



SPECIFICATIONS

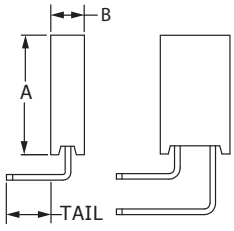
- 3 Amps current rating
- UL Flammability Rating: 94V-0
- Insulator Material: PBT, Nylon
- Contact Material: Phosphor Bronze

TERMINATION TYPE



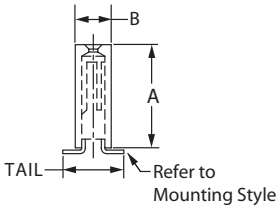
STRAIGHT

P/N CODE	ROWS	TERMINATION TYPE	A	B	TAIL
LFB	1	STRAIGHT	.335" [8.50]	.100" [2.54]	.126" [3.20]
	2	STRAIGHT	.335" [8.50]	.200" [5.08]	.126" [3.20]



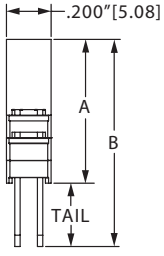
RIGHT ANGLE

P/N CODE	ROWS	TERMINATION TYPE	A	B	TAIL
LGB	1	RIGHT ANGLE	.335" [8.50]	0.100" [2.54]	.124" [3.15]
LJB	2	RIGHT ANGLE	.335" [8.50]	0.200" [5.08]	.124" [3.15]



SMT

P/N CODE	ROWS	TERMINATION TYPE	ENTRY	A	B	TAIL
KFX	1	SMT	TOP ENTRY	.280" [7.10]	.098" [2.50]	.169" [4.30]
KFM	2	SMT	TOP ENTRY	.280" [7.10]	.197" [5.00]	.270" [6.85]

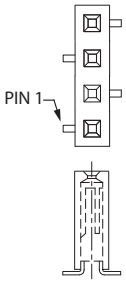


2 ROW STRAIGHT WITH ELEVATED SPACER

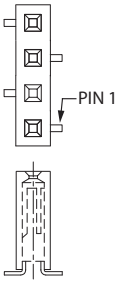
P/N CODE	ROWS	MODIFI-CATION	# OF SPACERS	A	B	TAIL
LFH	2	M44	1	.435" [11.04]	.725" [18.42]	.291" [7.38]
	2	M45	2	.535" [13.58]	.725" [18.42]	.191" [4.84]
	2	M46	3	.635" [16.12]	.725" [18.42]	.091" [2.30]
	2	M50	1	.435" [11.04]	.525" [13.34]	.091" [2.30]
	2	M51	1	.435" [11.04]	.915" [23.24]	.480" [12.20]
	2	M52	2	.535" [13.58]	.915" [23.24]	.380" [9.65]
	2	M53	3	.635" [16.12]	.914" [23.22]	.280" [7.10]
	2	M54	4	.735" [18.66]	.916" [23.26]	.181" [4.60]

MOUNTING STYLE

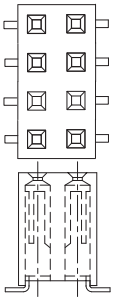
No Mounting Standard (N)



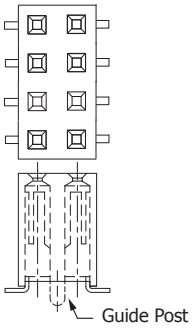
One Row SMT, Pin 1 Left (C)



One Row SMT, Pin 1 Right (D)



Two Row SMT, Without Guide Post (S)



Two Row SMT, With Guide Post (P)

.100" [2.54 mm] Contact Centers, Female Headers, Straight/Right Angle/SMT

PART NUMBER OPTIONS

PP P C 36 1 LFB N - Mxx RC

MATERIALS (INSULATOR/CONTACT)
PP = Polyester/Phosphor Bronze (Thru Hole Only)
NP = Nylon/Phosphor Bronze
LP = LCP/Phosphor Bronze (SMT Only)

CONTACT FINISH - RoHS Compliant
P = Gold Flash Overall
T = Tin Overall

CONTACT CENTERS
C = .100" [2.54 mm]

NUMBER OF POSITIONS
Contact per row, 02 Thru 40

NUMBER OF ROWS (Opposite Page)
1 = Single Row
2 = Dual Row

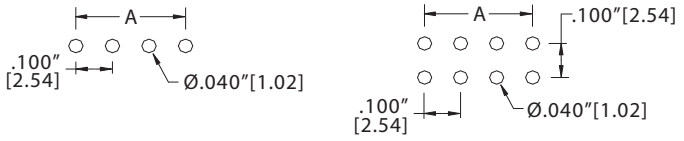
RoHS Compliant

MODIFICATION (Consult Factory)
Required for LFH Termination
See Termination Type on Opposite Page

MOUNTING STYLE
N = No Mounting
C = SMT, Single Row, pin 1 Left
D = SMT, Single Row, pin 1 Right
P = SMT, Dual Row with guide posts
S = SMT, Dual Row without guide posts

TERMINATION TYPE
LFB = Straight
LGB = Single Row Right Angle
LJB = Dual Row Right Angle
KFX = Single Row SMT (NP & LP Only)
KFM = Dual Row SMT (NP & LP Only)
LFH = Dual Row Straight with Elevated Spacer
(Requires Modification see Opposite Page)

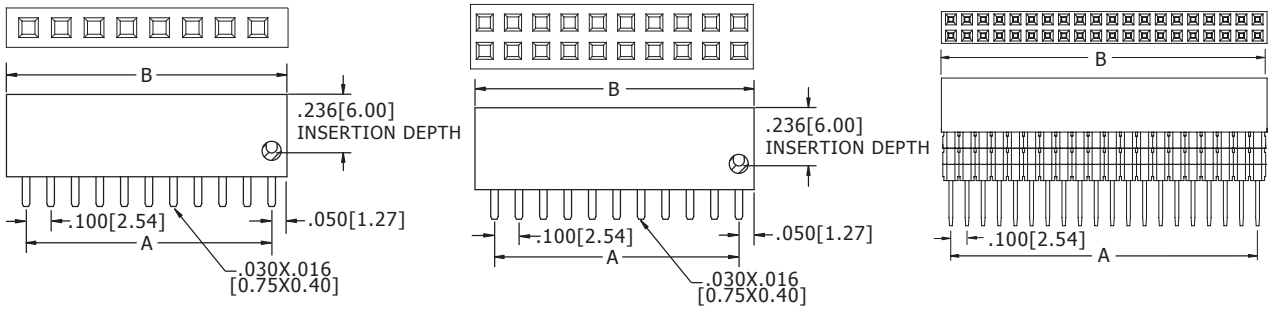
PCB LAYOUT



Recommended P.C.Board Hole Layout

DIMENSIONS

Dimensions in [ ] are in millimeters, all others are in inches.



SINGLE READOUT, STRAIGHT TAIL SHOWN

DUAL READOUT, STRAIGHT TAIL SHOWN

DUAL READOUT STRAIGHT TAIL WITH ELEVATED SPACER SHOWN

NUMBER OF POSITIONS	NUMBER OF CONTACTS		A		B	
	1 Row	2 Row	in	mm	in	mm
02	2	4	.100	2.54	.220	5.58
03	3	6	.200	5.08	.320	8.12
04	4	8	.300	7.62	.420	10.66
05	5	10	.400	10.16	.520	13.20
06	6	12	.500	12.70	.620	15.74
07	7	14	.600	15.24	.720	18.28
08	8	16	.700	17.78	.820	20.82
09	9	18	.800	20.32	.920	23.36
10	10	20	.900	22.86	1.020	25.90
11	11	22	1.000	25.40	1.120	28.44
12	12	24	1.100	27.94	1.220	30.98
13	13	26	1.200	30.48	1.320	33.52
14	14	28	1.300	33.02	1.420	36.06
15	15	30	1.400	35.56	1.520	38.60
16	16	32	1.500	38.10	1.620	41.14
17	17	34	1.600	40.64	1.720	43.68
18	18	36	1.700	43.18	1.820	46.22
19	19	38	1.800	45.72	1.920	48.76
20	20	40	1.900	48.26	2.020	51.30
21	21	42	2.000	50.80	2.120	53.84

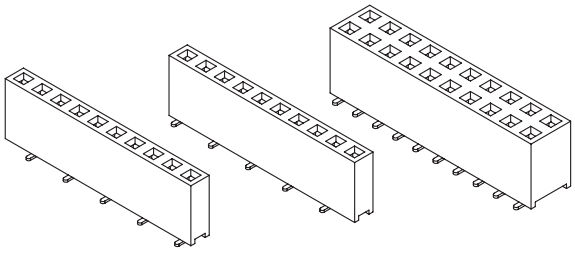
NUMBER OF POSITIONS	NUMBER OF CONTACTS		A		B	
	1 Row	2 Row	in	mm	in	mm
22	22	44	2.100	53.34	2.220	56.38
23	23	46	2.200	55.88	2.320	58.92
24	24	48	2.300	58.42	2.420	61.46
25	25	50	2.400	60.96	2.520	64.00
26	26	52	2.500	63.50	2.620	66.54
27	27	54	2.600	66.04	2.720	69.08
28	28	56	2.700	68.58	2.820	71.62
29	29	58	2.800	71.12	2.920	74.16
30	30	60	2.900	73.66	3.020	76.70
31	31	62	3.000	76.20	3.120	79.24
32	32	64	3.100	78.74	3.220	81.78
33	33	66	3.200	81.28	3.320	84.32
34	34	68	3.300	83.82	3.420	86.86
35	35	70	3.400	86.36	3.520	89.40
36	36	72	3.500	88.90	3.620	91.94
37	37	74	3.600	91.44	3.720	94.48
38	38	76	3.700	93.98	3.820	97.02
39	39	78	3.800	96.52	3.920	99.56
40	40	80	3.900	99.06	4.020	102.10

SULLINS

.100" [2.54 mm] Contact Centers, Top/Bottom Entry SMT Female Headers, SFM710/SFM850 Series

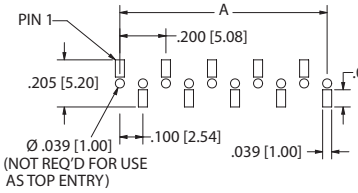
SPECIFICATIONS

- Insulator Material: Nylon, UL 94V-0
- Contact Resistance: 20 milli Ohms Max.
- Current Rating: 3 Amps
- Dielectric With Standing: 1000 VAC
- Insulation Resistance: 5000 Megohms Min.
- Operating Temperature: -40°C to +105°C
- Processing Temperature: 230°C Max. for 60 seconds, (260°C Max. for 10 seconds)

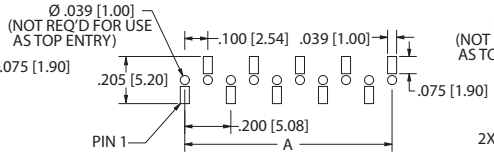


RECOMMENDED PCB LAYOUT

SINGLE ROW

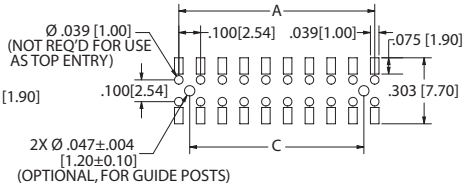


SFM710-NPPC-S_ _-SC-BK
SFM850-NPPC-S_ _-SC-BK



SFM710-NPPC-S_ _-SD-BK
SFM850-NPPC-S_ _-SD-BK

DUAL ROW

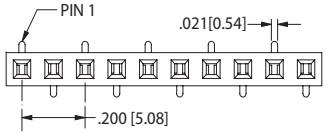


SFM710-NPPC-D_ _-S_-BK
SFM850-NPPC-D_ _-S_-BK

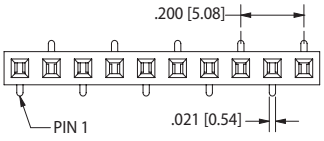
DIMENSIONS

Dimensions in [ ] are in millimeters, all others are in inches.

SINGLE ROW

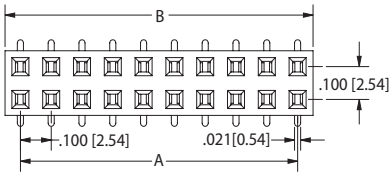


SFM710-NPPC-S_ _-SC-BK
SFM850-NPPC-S_ _-SC-BK
(STANDARD)



SFM710-NPPC-S_ _-SD-BK
SFM850-NPPC-S_ _-SD-BK
(Opposite Bend, Applicable on Even PIN Counts)

DUAL ROW



SFM710-NPPC-D_ _-S_-BK
SFM850-NPPC-D_ _-S_-BK

FOR SFM850 SINGLE ROW/DUAL ROW SERIES

NUMBER OF CONTACTS SINGLE/DUAL	A		B		C (DUAL ROW)	
	in	mm	in	mm	in	mm
02/04*	0.100	2.54	0.216	5.48	N/A	
03/06	0.200	5.08	0.316	8.02	0.100	2.54
04/08	0.300	7.62	0.416	10.56	0.200	5.08
05/10	0.400	10.16	0.516	13.10	0.300	7.62
06/12	0.500	12.70	0.616	15.64	0.400	10.16
07/14	0.600	15.24	0.716	18.18	0.500	12.70
08/16	0.700	17.78	0.816	20.72	0.600	15.24
09/18	0.800	20.32	0.916	23.26	0.700	17.78
10/20	0.900	22.86	1.016	25.80	0.800	20.32
11/22	1.000	25.40	1.116	28.34	0.900	22.86
12/24	1.100	27.94	1.216	30.88	1.000	25.40
13/26	1.200	30.48	1.316	33.42	1.100	27.94
14/28	1.300	33.02	1.416	35.96	1.200	30.48
15/30	1.400	35.56	1.516	38.50	1.300	33.02
16/32	1.500	38.10	1.616	41.04	1.400	35.56
17/34	1.600	40.64	1.716	43.58	1.500	38.10
18/36	1.700	43.18	1.816	46.12	1.600	40.64
19/38	1.800	45.72	1.916	48.66	1.700	43.18
20/40	1.900	48.26	2.016	51.20	1.800	45.72
21/42	2.000	50.80	2.116	53.74	1.900	48.26

*Not available with guide posts.

NUMBER OF CONTACTS SINGLE/DUAL	A		B		C (DUAL ROW)	
	in	mm	in	mm	in	mm
22/44	2.100	53.34	2.216	56.28	2.000	50.80
23/46	2.200	55.88	2.316	58.82	2.100	53.34
24/48	2.300	58.42	2.416	61.36	2.200	55.88
25/50	2.400	60.96	2.516	63.90	2.300	58.42
26/52	2.500	63.50	2.616	66.44	2.400	60.96
27/54	2.600	66.04	2.716	68.98	2.500	63.50
28/56	2.700	68.58	2.816	71.52	2.600	66.04
29/58	2.800	71.12	2.916	74.06	2.700	68.58
30/60	2.900	73.66	3.016	76.60	2.800	71.12
31/62	3.000	76.20	3.116	79.14	2.900	73.66
32/64	3.100	78.74	3.216	81.68	3.000	76.20
33/66	3.200	81.28	3.316	84.22	3.100	78.74
34/68	3.300	83.82	3.416	86.76	3.200	81.28
35/70	3.400	86.36	3.516	89.30	3.300	83.82
36/72	3.500	88.90	3.616	91.84	3.400	86.36
37/74	3.600	91.44	3.716	94.38	3.500	88.90
38/76	3.700	93.98	3.816	96.92	3.600	91.44
39/78	3.800	96.52	3.916	99.46	3.700	93.98
40/80	3.900	99.06	4.016	102.00	3.800	96.52

.100" [2.54 mm] Contact Centers, Top/Bottom Entry SMT Female Headers, SFM710/SFM850 Series

PART NUMBER OPTIONS

SFM710 - N P P C - D 02 - SM - BK

SERIES
SFM710 = 7.10 mm Insulator Height
SFM850 = 8.50 mm Insulator Height

INSULATOR MATERIAL
N = Nylon

CONTACT MATERIAL
P = Phosphor Bronze

CONTACT FINISH - RoHS Compliant
P = Gold Flash Overall

CONTACT CENTERS
C = .100" [2.54 mm]

COLOR
BK = Black

TERMINATION TYPE (See Opposite Page)
SC = Surface Mount, Standard (Single Row)
SD = Surface Mount, Opposite Bend, Applicable on Even Pin Counts (Single Row)
SM = Surface Mount without Guide Posts (Dual Row)
SP = Surface Mount with Guide Posts (Dual Row)

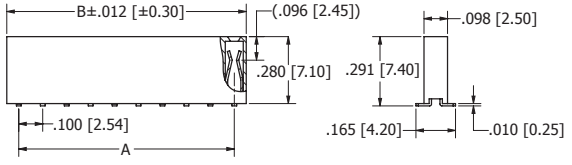
NUMBER OF CONTACT POSITIONS
(Contact Per Row, 02 thru 40)

NUMBER OF ROWS
S = Single
D = Dual

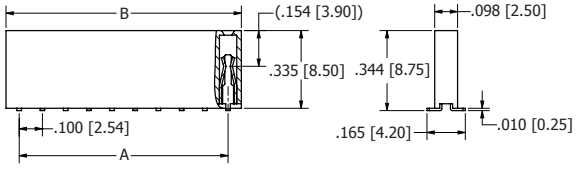
DIMENSIONS

Dimensions in [ ] are in millimeters, all others are in inches.

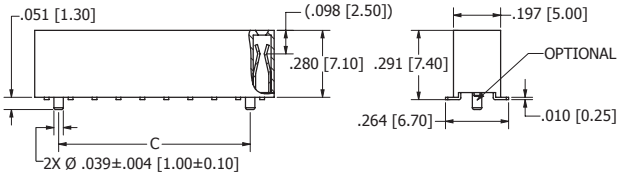
SFM710 Series Single Row



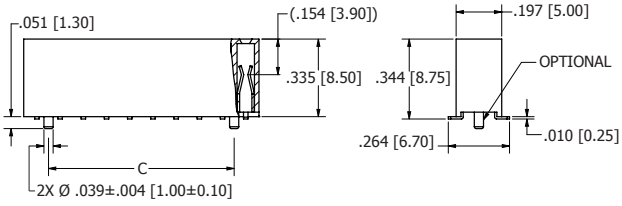
SFM850 Series Single Row



SFM710 Series Dual Row



SFM850 Series Dual Row



FOR SFM710 SINGLE ROW/DUAL ROW SERIES

NUMBER OF CONTACTS SINGLE/DUAL	A		B		C (DUAL ROW)	
	in	mm	in	mm	in	mm
02/04*	0.100	2.54	0.200	5.08	N/A	
03/06	0.200	5.08	0.300	7.62	0.100	2.54
04/08	0.300	7.62	0.400	10.16	0.200	5.08
05/10	0.400	10.16	0.500	12.70	0.300	7.62
06/12	0.500	12.70	0.600	15.24	0.400	10.16
07/14	0.600	15.24	0.700	17.78	0.500	12.70
08/16	0.700	17.78	0.800	20.32	0.600	15.24
09/18	0.800	20.32	0.900	22.86	0.700	17.78
10/20	0.900	22.86	1.000	25.40	0.800	20.32
11/22	1.000	25.40	1.100	27.94	0.900	22.86
12/24	1.100	27.94	1.200	30.48	1.000	25.40
13/26	1.200	30.48	1.300	33.02	1.100	27.94
14/28	1.300	33.02	1.400	35.56	1.200	30.48
15/30	1.400	35.56	1.500	38.10	1.300	33.02
16/32	1.500	38.10	1.600	40.64	1.400	35.56
17/34	1.600	40.64	1.700	43.18	1.500	38.10
18/36	1.700	43.18	1.800	45.72	1.600	40.64
19/38	1.800	45.72	1.900	48.26	1.700	43.18
20/40	1.900	48.26	2.000	50.80	1.800	45.72
21/42	2.000	50.80	2.100	53.34	1.900	48.26

*Not available with guide posts.

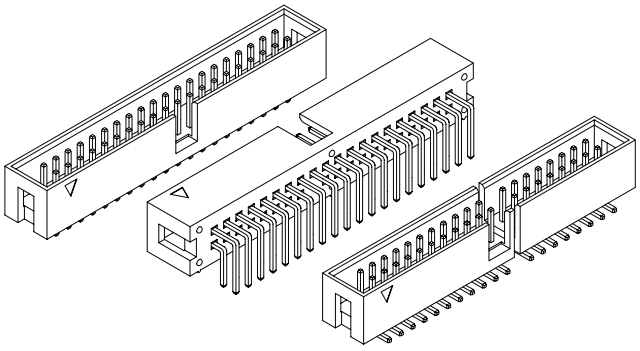
NUMBER OF CONTACTS SINGLE/DUAL	A		B		C (DUAL ROW)	
	in	mm	in	mm	in	mm
22/44	2.100	53.34	2.200	55.88	2.000	50.80
23/46	2.200	55.88	2.300	58.42	2.100	53.34
24/48	2.300	58.42	2.400	60.96	2.200	55.88
25/50	2.400	60.96	2.500	63.50	2.300	58.42
26/52	2.500	63.50	2.600	66.04	2.400	60.96
27/54	2.600	66.04	2.700	68.58	2.500	63.50
28/56	2.700	68.58	2.800	71.12	2.600	66.04
29/58	2.800	71.12	2.900	73.66	2.700	68.58
30/60	2.900	73.66	3.000	76.20	2.800	71.12
31/62	3.000	76.20	3.100	78.74	2.900	73.66
32/64	3.100	78.74	3.200	81.28	3.000	76.20
33/66	3.200	81.28	3.300	83.82	3.100	78.74
34/68	3.300	83.82	3.400	86.36	3.200	81.28
35/70	3.400	86.36	3.500	88.90	3.300	83.82
36/72	3.500	88.90	3.600	91.44	3.400	86.36
37/74	3.600	91.44	3.700	93.98	3.500	88.90
38/76	3.700	93.98	3.800	96.52	3.600	91.44
39/78	3.800	96.52	3.900	99.06	3.700	93.98
40/80	3.900	99.06	4.000	101.60	3.800	96.52

SULLINS

.100" [2.54 mm] Contact Centers, Shrouded (Box) Headers, Straight/Right Angle/SMT - SBH11 Series
Mates with SFH11 series, SFH210 series and SFH213 series

SPECIFICATIONS

- Centered Polarizing Notch
- Operating Temperature: -40°C to +105°C
- Processing Temperature: 230°C Max. for 60 seconds, (260°C Max. for 10 seconds)
- UL Flammability Rating: 94V-0
- Contact Resistance: 20 milli Ohms Max.
- Current Rating: 3 Amps
- Dielectric Withstanding: 1000 VAC
- Insulation Resistance: 5000 Megohms Min.



PART NUMBER OPTIONS

SBH11 - P B P C - D 10 - ST - BK

SERIES
SBH11 = Box Header, .100" [2.54 mm] Contact Centers by .100" [2.54 mm] Row Spacing

INSULATOR MATERIAL
P = PBT
N or G = Nylon

CONTACT MATERIAL
B = Brass

CONTACT FINISH - RoHS Compliant
P = Gold Flash Overall

CONTACT CENTERS
C = .100" [2.54 mm]

NUMBER OF ROWS
D = Dual Row

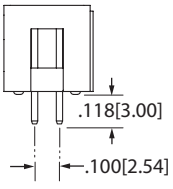
NUMBER OF CONTACT POSITIONS (Pins per Row)
03 thru 08, 10, 12, 13, 15, 17, 20, 22, 25, 30, 32

TERMINATION TYPE
ST = Straight
RA = Right Angle
SM = Surface Mount
SP = Surface Mount with Guide Posts

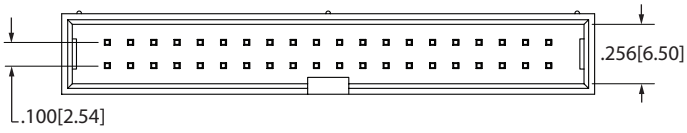
COLOR
BK = Black

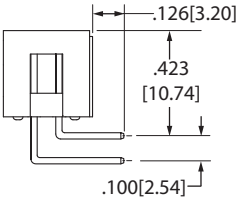
DIMENSIONS **For complete drawings, go to www.sullinscorp.com or e-mail techsupport@sullinscorp.com**

Dimensions in [ ] are in millimeters, all others are in inches.

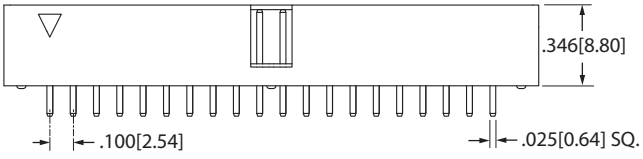


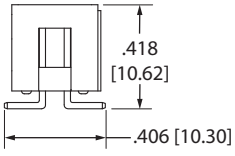
STRAIGHT (ST)
Example P/N: **SBH11-PBPC-D20-ST-BK**



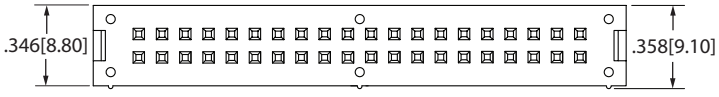


RIGHT ANGLE (RA)
Example P/N: **SBH11-PBPC-D20-RA-BK**





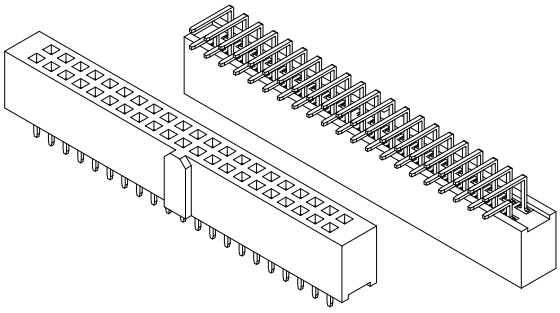
SURFACE MOUNT (SM)
Example P/N: **SBH11-NBPC-D20-SM-BK**



.100" [2.54 mm] Contact Centers, Female Headers, Straight/Right Angle - SFH11 Series
Mates with SBH11 series (See opposite page)

SPECIFICATIONS

- Centered Polarizing Key Optional
- Operating Temperature: -40°C to +105°C
- Processing Temperature: 230°C Max. for 60 seconds, (260°C Max. for 10 seconds)
- UL Flammability Rating: 94V-0
- Contact Resistance: 20 milli Ohms Max.
- Current Rating: 3 Amps
- Dielectric Withstanding: 1000 VAC
- Insulation Resistance: 5000 Megohms Min.



PART NUMBER OPTIONS

SFH11 - P P P C - D 10 - ST - BK - M181

SERIES
SFH11 = Female Header, .100" [2.54 mm] Contact Centers by .100" [2.54 mm] Row Spacing

INSULATOR MATERIAL
P = PBT
N = NYLON

CONTACT MATERIAL
P = Phosphor Bronze
B = Brass

CONTACT FINISH - RoHS Compliant
P = Gold Flash Overall
E = .000100" Pure Tin, Matte, Overall

CONTACT CENTERS
C = .100" [2.54 mm]

MODIFICATION (Omit for Standard)
M181 = Without Centered Polarizing Key

COLOR
BK = Black

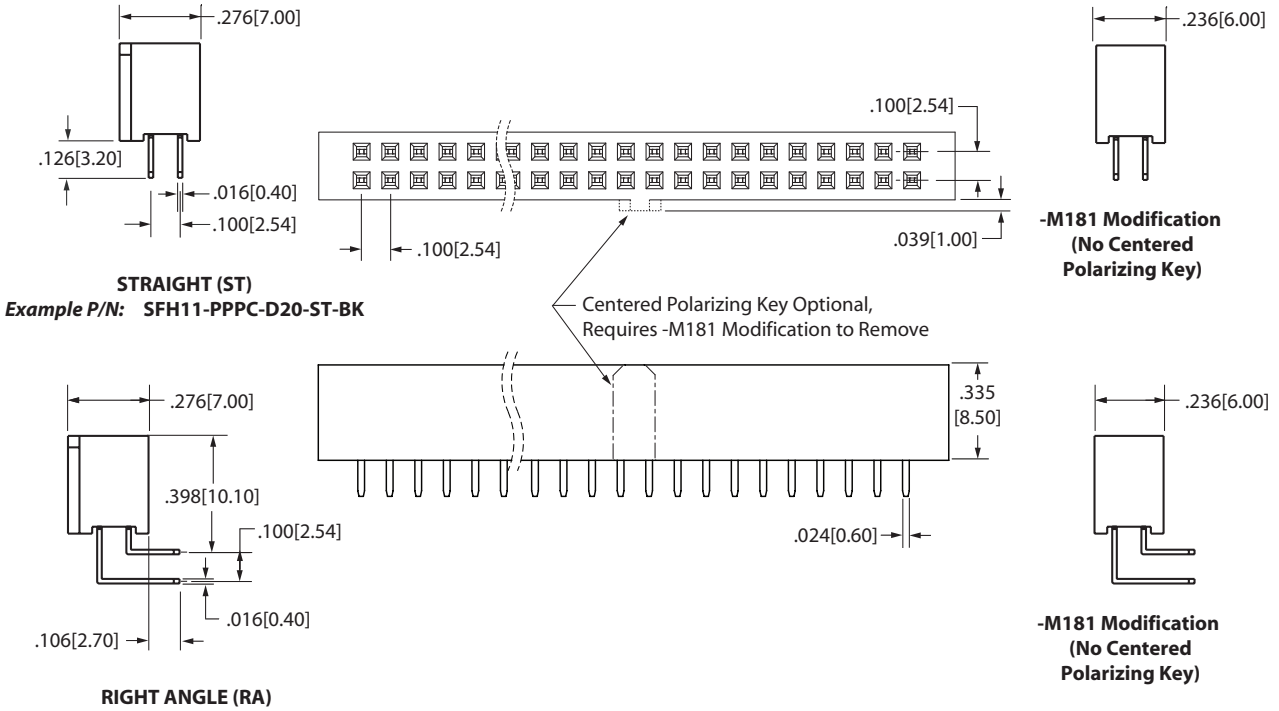
TERMINATION TYPE (Opposite Page)
ST = Straight
RA = Right Angle

NUMBER OF CONTACT POSITIONS
03 thru 08,10,12, 13, 15,17, 20, 25, 30, 32

NUMBER OF ROWS
D = Dual Row

DIMENSIONS **For complete drawings, go to www.sullinscorp.com or e-mail techsupport@sullinscorp.com**

Dimensions in [ ] are in millimeters, all others are in inches.

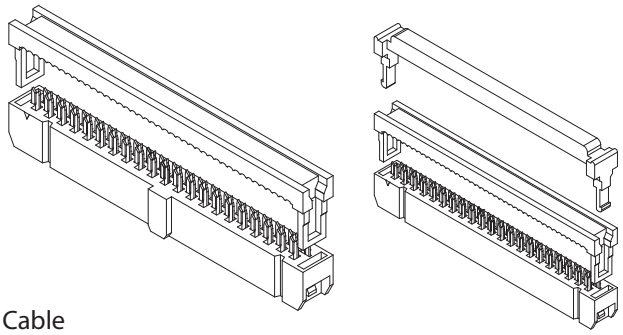


STRAIGHT (ST)
Example P/N: **SFH11-PPPC-D20-ST-BK**

RIGHT ANGLE (RA)
Example P/N: **SFH11-PPPC-D20-RA-BK**

SULLINS

.100" [2.54 mm] Contact Centers, IDC Socket, Insulation Displacement- SFH Series With or Without Strain Relief Mates with SBH11 series



SPECIFICATIONS

- Centered Polarizing Key Optional
- Operating Temperature: -40°C to +105°C
- UL Flammability Rating: 94V-0
- Current Rating: 1 Amp
- Dielectric Withstanding: 500 VAC
- Insulation Resistance: 3,000 Megohms
- For .050" [1.27 mm] Pitch AWG 26-28 Flat Ribbon Cable

PART NUMBER OPTIONS

SFH210 - P P P C - D 10 - ID - BK - Mxxx

SERIES
SFH210 = IDC Socket, Without Strain Relief
SFH213 = IDC Socket, With Strain Relief

INSULATOR MATERIAL
P = PBT

CONTACT MATERIAL
P = Phosphor Bronze

CONTACT FINISH - RoHS Compliant
P = Gold Flash Overall
E = .000100" Pure Tin, Matte, Overall
V = Gold Flash on Contact Surface, Nickel on Termination
J = .000015" Gold on Contact Surface, Gold Flash on Termination
K = .000015" Gold on Contact Surface, Nickel on Termination

MODIFICATION (Omit for Standard)
M181 = Without Centered Polarizing Key
M207 = With Polarizing Key, With Mylar in Tape & Reel (only for SFH210)
M208 = Without Polarizing Key, With Mylar in Tape and Reel (only for SFH210)

COLOR
BK = Black

TERMINATION TYPE
ID = Insulation Displacement

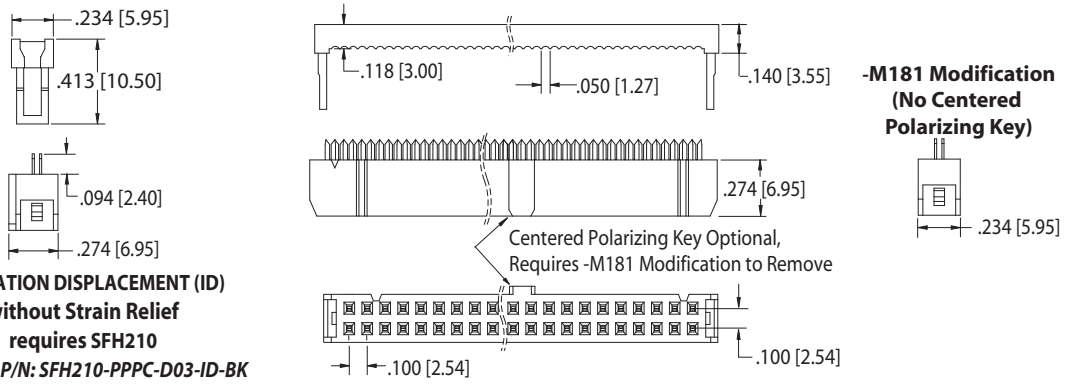
NUMBER OF CONTACT POSITIONS
03 thru 13, 15, 17, 20, 25, 30, 32
*M208 and M207 not available in 30 or 32

NUMBER OF ROWS
D = Dual Row

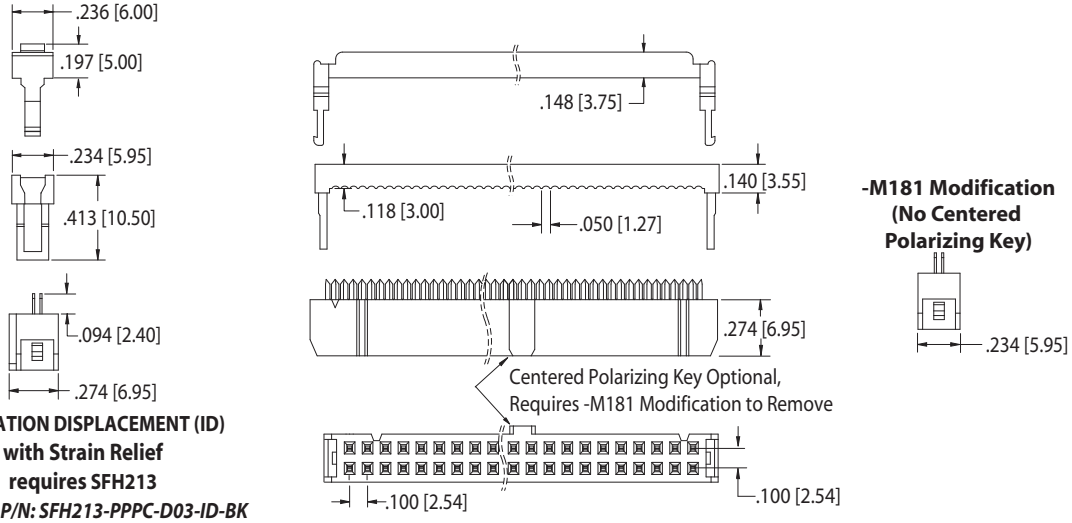
CONTACT CENTERS
C = .100" [2.54 mm]

DIMENSIONS For complete drawings, go to www.sullinscorp.com or e-mail techsupport@sullinscorp.com

Dimensions in [ ] are in millimeters, all others are in inches.



INSULATION DISPLACEMENT (ID) without Strain Relief requires SFH210
Example P/N: SFH210-PPPC-D03-ID-BK

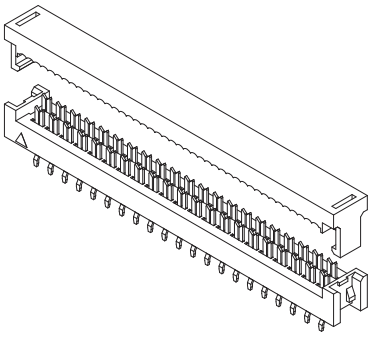


INSULATION DISPLACEMENT (ID) with Strain Relief requires SFH213
Example P/N: SFH213-PPPC-D03-ID-BK

.100" [2.54 mm] Contact Centers, IDC Dip Plug Straight - SIP110 Series

SPECIFICATIONS

- Operating Temperature: -40°C to +105°C
- Current Rating: 1 Amp
- Dielectric Withstanding: 1,000 VAC
- Insulation Resistance: 5,000 Megohms
- For .050" [1.27 mm] Pitch AWG 26-28 Flat Ribbon Cable
- UL Flammability Rating: 94V-0



PART NUMBER OPTIONS

SIP110 - P P P C - D 10 - ST - BK

SERIES
SIP110 = IDC Dip Plug

INSULATOR MATERIAL
P = PBT

CONTACT MATERIAL
P = Phosphor Bronze

CONTACT FINISH - RoHS Compliant
P = Gold Flash Overall
E = .000100" Pure Tin, Matte, Overall
V = Gold Flash on Contact Surface, Nickel on Termination
J = .000015" Gold on Contact Surface, Gold Flash on Termination
K = .000015" Gold on Contact Surface, Nickel on Termination

CONTACT CENTERS
C = .100" [2.54 mm]

NUMBER OF ROWS
D = Dual Row

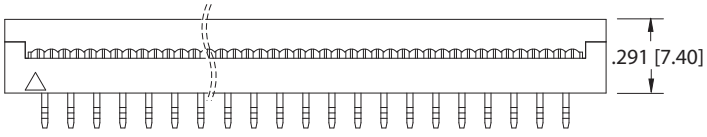
NUMBER OF CONTACT POSITIONS
03 thru 10, 12, 13, 14, 15, 17, 20, 25, 30, 32

TERMINATION TYPE
ST = Straight
SK = Straight with Kink

COLOR
BK = Black

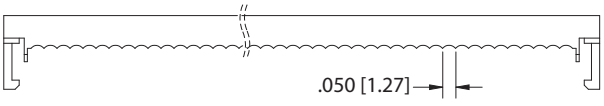
DIMENSIONS For complete drawings, go to www.sullinscorp.com or e-mail techsupport@sullinscorp.com

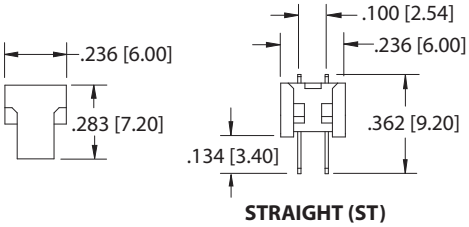
Dimensions in [ ] are in millimeters, all others are in inches.



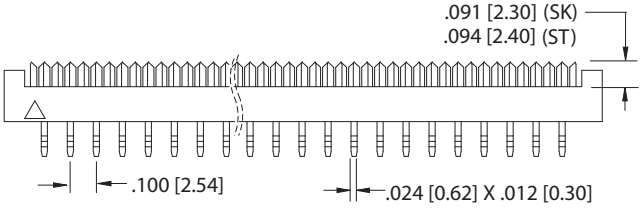
ASSEMBLED FRONT VIEW

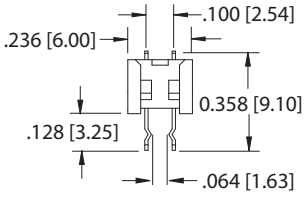
STRAIGHT (ST) WITH KINK (SK)





STRAIGHT (ST)
Example P/N: SIP110-PP_C-D10-ST-BK





WITH KINK (SK)
Example P/N: SIP110-PP_C-D15-SK-BK

SULLINS

.050" [1.27 mm] Contact Centers, Jumpers Closed Top

SPECIFICATIONS

- Insulator Material: Nylon
- Contact Material: Phosphor Bronze
- Plating: Overall Gold Flash
- 1 Amp current rating
- UL Flammability Rating: 94V-0/94V-2
- Dual Beam Contacts

PART NUMBER OPTIONS

N P B 02 S VA N - RC

MATERIALS (INSULATOR/CONTACT)
N = Nylon/Phosphor Bronze

CONTACT FINISH
P = Gold Flash Overall

CONTACT CENTERS
B = .050" [1.27 mm]

NUMBER OF POSITIONS
02 Positions Only

RoHS COMPLIANT

MOUNTING STYLE
N = No Mounting

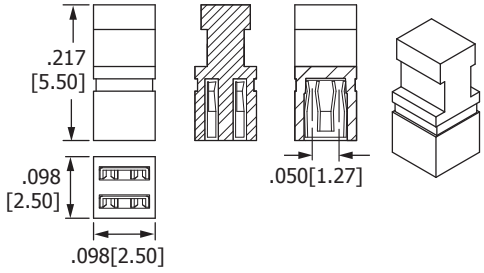
PROFILE & TYPE
VA, VF

NUMBER OF ROWS
S = Single Circuit
D = Dual Circuit

DIMENSIONS

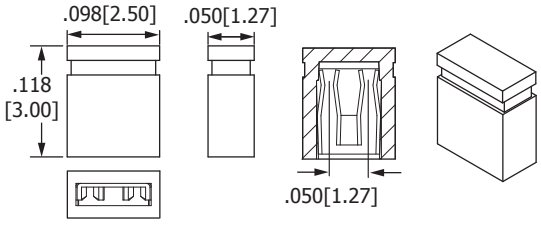
Dimensions in [ ] are in millimeters, all others are in inches.

CLOSED TOP - DUAL CIRCUIT

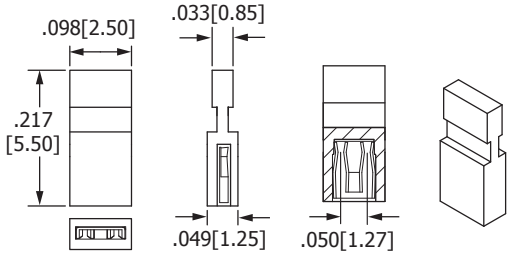


NPB02DVFN-RC

CLOSED TOP - SINGLE CIRCUIT



NPB02SVAN-RC



NPB02SVFN-RC

.079" [2.00 mm] Contact Centers, Jumpers Open/ Closed Top

SPECIFICATIONS

- Insulator Material: Nylon/PBT
- Contact Material: Phosphor Bronze
- Plating: Gold Flash Overall
- 1, 2 or 3 Amps current rating
- UL Flammability Rating: 94V-0/94V-2
- Dual Beam Contacts

PART NUMBER OPTIONS

S P N 02 S YB N - RC

MATERIALS (INSULATOR/CONTACT)
N = Nylon/Phosphor Bronze
S = PBT/ Phosphor Bronze

CONTACT FINISH
P = Gold Flash Overall
T = Tin Plate Overall ('YB' Profile Only)

CONTACT CENTERS
N = .079" [2.00 mm]

NUMBER OF POSITIONS
02 Positions Only

RoHS COMPLIANT

MOUNTING STYLE
N = No Mounting

PROFILE & TYPE
VB, VE, XC, XL, XN, YB

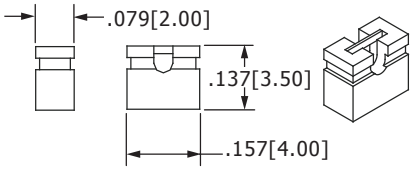
NUMBER OF ROWS
S = Single Circuit

DIMENSIONS

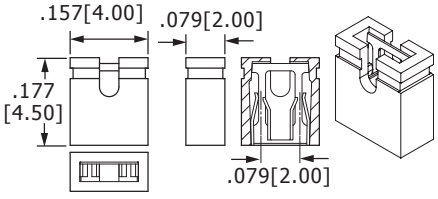
Dimensions in [ ] are in millimeters, all others are in inches.

OPEN TOP - SINGLE CIRCUIT

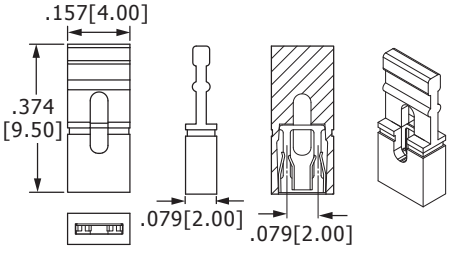
STANDARD



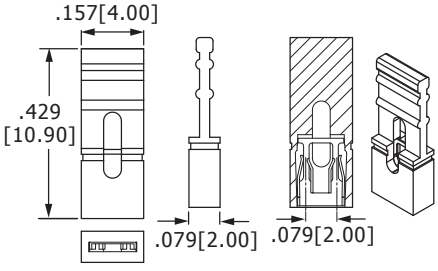
SPN02SYBN-RC
STN02SYBN-RC



SPN02SXCN-RC

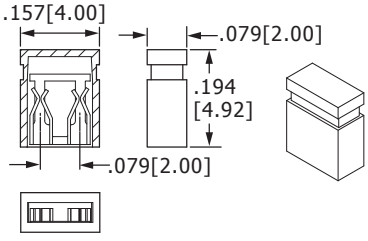


NPN02SXLN-RC

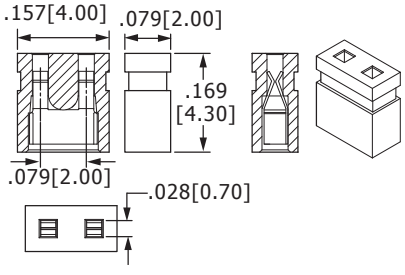


NPN02SXNN-RC

CLOSED TOP - SINGLE CIRCUIT



SPN02SVEN-RC



SPN02SVBN-RC

SULLINS

.100"[2.54 mm] Contact Centers, Jumpers Open / Closed Top

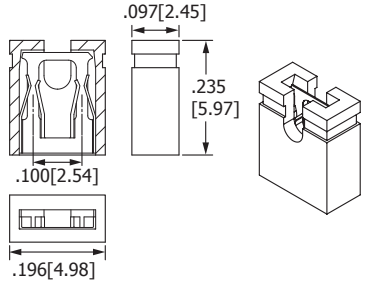
SPECIFICATIONS

- Insulator Material: Nylon, PBT, PA9T, PPS, PEEK
- Contact Material: Phosphor Bronze, Brass, Beryllium Copper, Beryllium Nickel, Spinodal
- Plating: Gold Flash Overall
- 3 Amps current rating
- UL Flammability Rating: 94V-0/94V-2
- Dual Beam Contacts

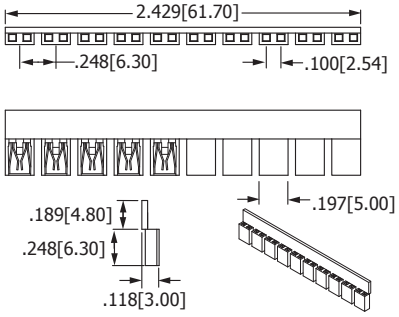
DIMENSIONS

Dimensions in [ ] are in millimeters, all others are in inches.

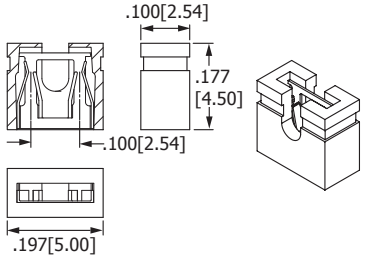
OPEN TOP - SINGLE CIRCUIT



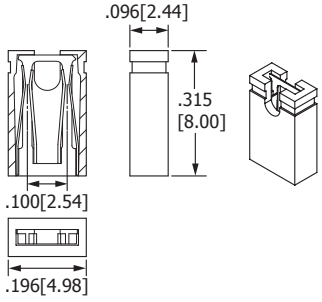
QPC02SXGN-RC



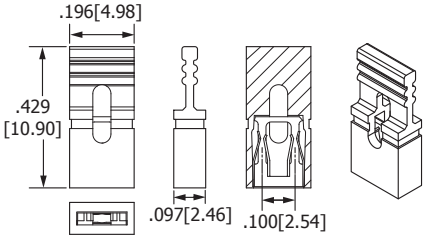
QPC02SXHN-M290RC (Strip of 10)



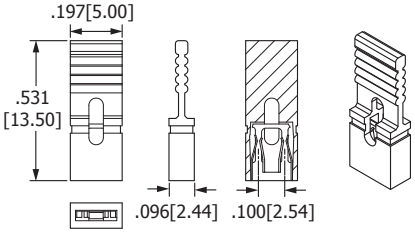
SPC02SXCN-RC



SPC02SXIN-RC

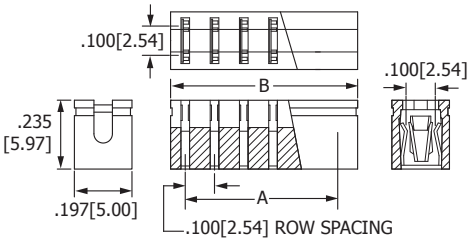


NPC02SXNN-RC
High Temperature Options Available
Example P/N: ADC02SXNN-S328



NPC02SXON-RC

OPEN TOP - CHOICE OF CIRCUITS



QPC02_XGN-RC

PART NUMBER	CIRCUITS	A		B	
		in	mm	in	mm
QPC02DXGN-RC	2	0.100	2.54	0.200	5.08
QPC02TXGN-RC	3	0.200	5.08	0.300	7.62
QPC02QXGN-RC	4	0.300	7.62	0.400	10.16
QPC02UXGN-RC	5	0.400	10.16	0.500	12.70
QPC02EXGN-RC	6	0.500	12.70	0.600	15.24
QPC02PXGN-RC	7	0.600	15.24	0.700	17.78
QPC02CXGN-RC	8	0.700	17.78	0.800	20.32
QPC02NXGN-RC	9	0.800	20.32	0.900	22.86
QPC02AXGN-RC	10	0.900	22.86	1.000	25.40
QPC02RXGN-RC	13	1.200	30.48	1.300	33.02

.100" [2.54 mm] Contact Centers, Jumpers Open / Closed Top

PART NUMBER OPTIONS

S P C 02 S VD N - RC

MATERIALS (INSULATOR/CONTACT)
N = Nylon/Phosphor Bronze
S = PBT/Phosphor Bronze
Q = PBT/Brass

High Temperature Options
(Available for 'XN' profile only)
A = Brown PPS/Beryllium Copper
Operating Temperature: -65°C to +150°C
(Requires -S328 modification code)
J = Black PA9T/Beryllium Copper
Operating Temperature: -65°C to +150°C
M = White PA9T/Beryllium Copper
Operating Temperature: -65°C to +150°C
F = Green PPS/Spinodal
Operating Temperature: -65°C to +200°C
W = Tan PEEK/Beryllium Nickel
Operating Temperature: -65°C to +250°C

CONTACT FINISH - RoHS Compliant
P = Gold Flash Overall (Material codes 'N', 'S', and 'Q' only)
T = Tin Plate Overall ('YA' Profile only, see below)
S = .000010" Gold Overall ('YA' Profile or high temperature only)
D = .000030" Gold Overall (High temperature materials only)

CONTACT CENTERS
C = .100" [2.54 mm]

NUMBER OF POSITIONS
02 Positions Only

MODIFICATION CODE
-RC (Omit for 'YA' profile)
-M290RC = Strip of 10 jumpers
(QPC02SXHN-M290RC only)

High Temperature Options
Omit -RC
-S328 = Brown PPS (Material code 'A' only)

MOUNTING STYLE
N = No Mounting

PROFILE & TYPE
VD, VG, VJ, VK, XC, XG, XH, XI, XN, XO, YA

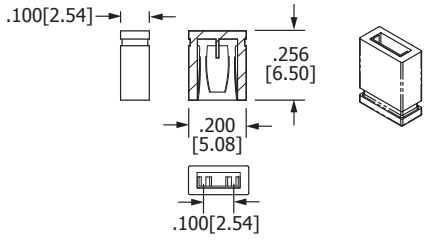
NUMBER OF ROWS
S = 1 Circuit
D = 2 Circuits
T = 3 Circuits
Q = 4 Circuits
U = 5 Circuits
E = 6 Circuits
P = 7 Circuits
C = 8 Circuits
N = 9 Circuits
A = 10 Circuits
R = 13 Circuits

DIMENSIONS

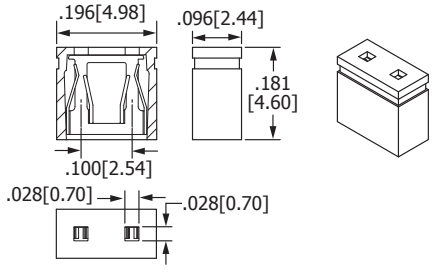
Dimensions in [ ] are in millimeters, all others are in inches.

CLOSED TOP - SINGLE CIRCUIT

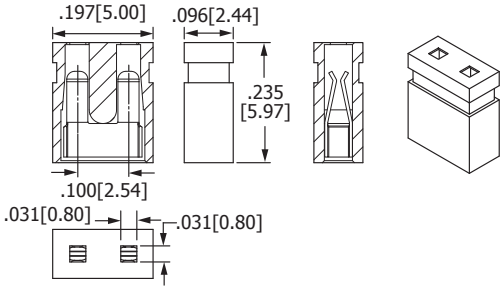
STANDARD



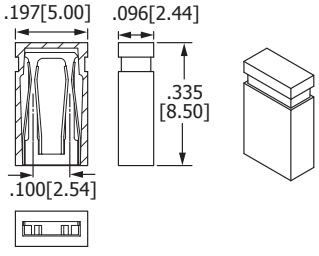
STC02SYAN
SPC02SYAN
SSC02SYAN



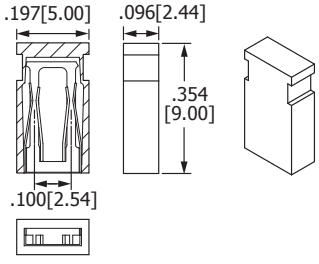
SPC02SVDN-RC



SPC02SVGN-RC



SPC02SVJN-RC



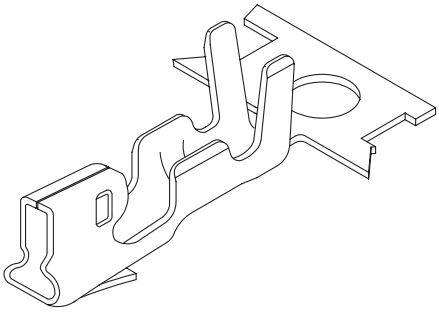
SPC02SVKN-RC

SULLINS

SWT201 Series Crimp Terminal

SPECIFICATIONS

- Material: Phosphor Bronze
- Plating: See Part Number Options
- Contact Resistance: 20 milli Ohms Max
- Current Rating: 1 Amp
- Wire Range: AWG #24 - #28
- Insulation O.D.: Ø1.20mm ~ Ø1.50mm
- Quantity Per Reel = 10,000 Pieces
- Used in SWH201 Series Housing



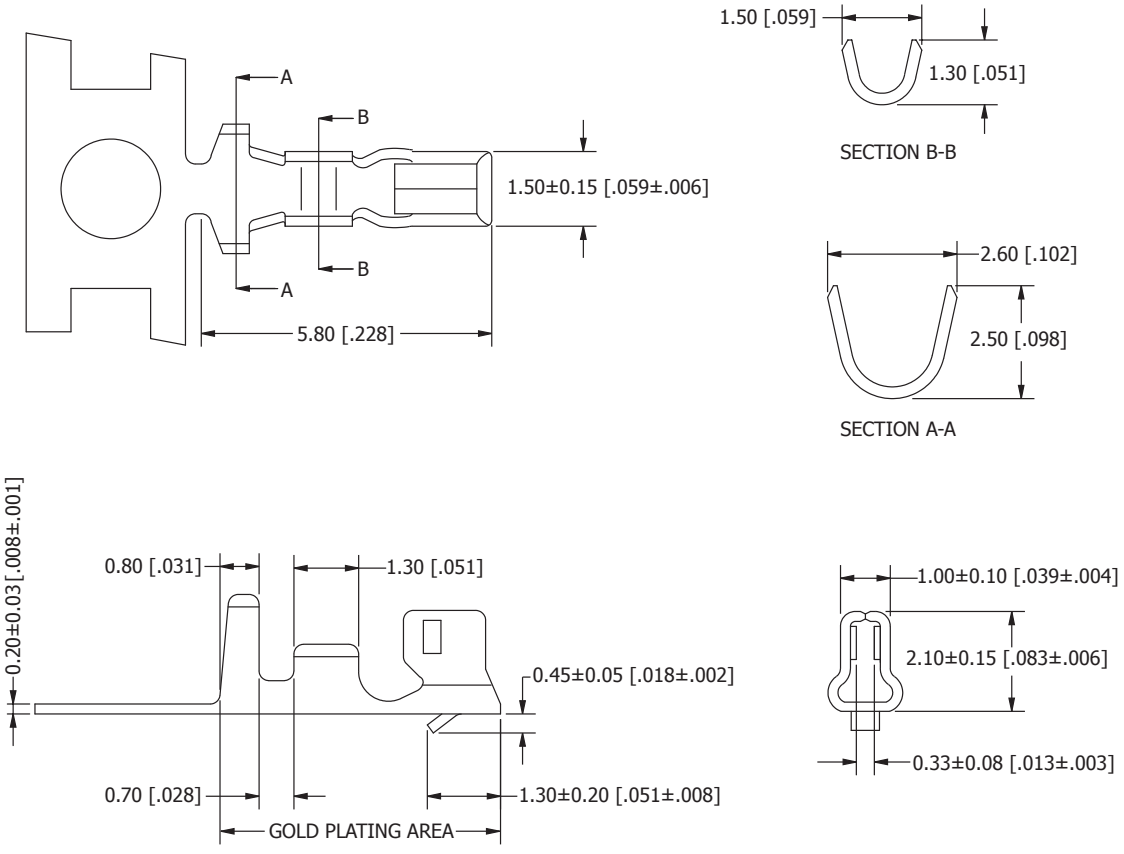
PART NUMBER OPTIONS

SWT201-UPTN-S01-UU-UU

CONTACT FINISH - RoHS Compliant

T = .000015" Min Nickel Underplate, .000040" Min Pure Tin, Bright Overall
P = .000040" Min Nickel Underplate, Gold Flash Overall

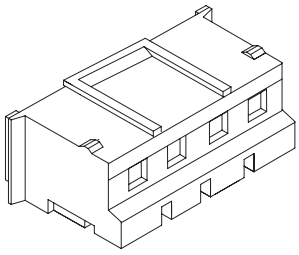
DIMENSIONS Dimensions in [ ] are in inches, all others are in millimeters.



SWH201 Series Housing 2.00 mm [.079”] Contact Centers

SPECIFICATIONS

- Insulator Material: Nylon, UL 94V-0 Color: White
- Dielectric Withstanding Voltage: 800 VAC
- Insulator Resistance: 1000 Megohms Minimum
- Operating Temperature: -25°C to +85°C
- Voltage Rating: 125 VAC/DC
- Suitable for SWT201 Series Terminal
- Mates with SWR201 Series Single Row Wafer

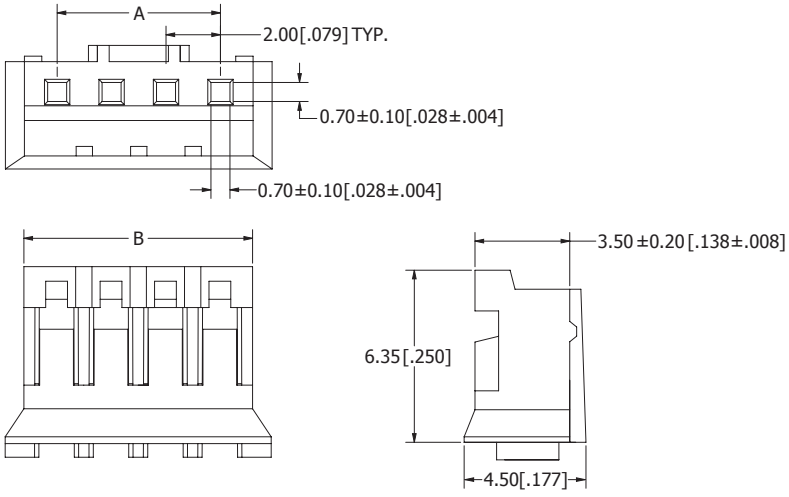


PART NUMBER OPTIONS

SWH201-NULN-S16-UU-WH

NUMBER OF POSITIONS
02 thru 16
See Chart Below

DIMENSIONS Dimensions in [ ] are in inches, all others are in millimeters.



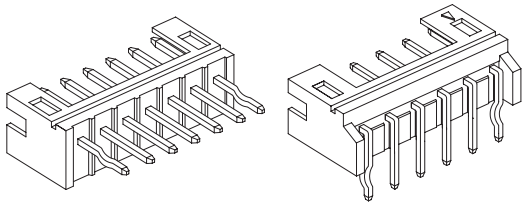
PART NUMBER	POSITIONS/ CONTACTS	A		B	
		mm	in	mm	in
SWH201-NULN-S02-UU-WH	02/02	2.00	0.079	4.40	0.173
SWH201-NULN-S03-UU-WH	03/03	4.00	0.157	6.40	0.252
SWH201-NULN-S04-UU-WH	04/04	6.00	0.236	8.40	0.331
SWH201-NULN-S05-UU-WH	05/05	8.00	0.315	10.40	0.409
SWH201-NULN-S06-UU-WH	06/06	10.00	0.394	12.40	0.488
SWH201-NULN-S07-UU-WH	07/07	12.00	0.472	14.40	0.567
SWH201-NULN-S08-UU-WH	08/08	14.00	0.551	16.40	0.646
SWH201-NULN-S09-UU-WH	09/09	16.00	0.630	18.40	0.724
SWH201-NULN-S10-UU-WH	10/10	18.00	0.709	20.40	0.803
SWH201-NULN-S11-UU-WH	11/11	20.00	0.787	22.40	0.882
SWH201-NULN-S12-UU-WH	12/12	22.00	0.866	24.40	0.961
SWH201-NULN-S13-UU-WH	13/13	24.00	0.945	26.40	1.039
SWH201-NULN-S14-UU-WH	14/14	26.00	1.024	28.40	1.118
SWH201-NULN-S15-UU-WH	15/15	28.00	1.102	30.40	1.197
SWH201-NULN-S16-UU-WH	16/16	30.00	1.181	32.40	1.276

SULLINS

SWR201 Series Single Row Wafer 2.0 mm [.079”] Contact Centers, Straight/Right Angle

SPECIFICATIONS

- Insulator Material: Nylon, UL 94V-0 Color: White
- Contact Material: Brass
- Contact Resistance: 20 milli Ohms Max
- Contact Plating: .000020” Min. Nickel Underplate, Pure Tin, Bright Overall
- Current Rating: 1 Amp
- Dielectric Withstanding Voltage: 800 VAC
- Insulator Resistance: 1000 Megohms Minimum
- Operating Temperature: -25°C to +85°C
- Voltage Rating: 125 VAC/DC
- Mates with SWH201 Series Single Row Housing



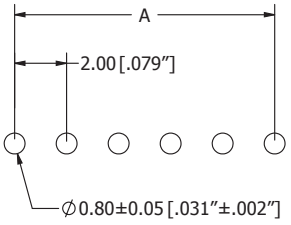
PART NUMBER OPTIONS

SWR201-NRTN-S16 -SA - WH

NUMBER OF POSITIONS
02 thru 16
See Chart Below

TERMINATION TYPE
SA = End Pins Kink Right
RL = Right Angle With Kinked End Pins

PCB LAYOUT

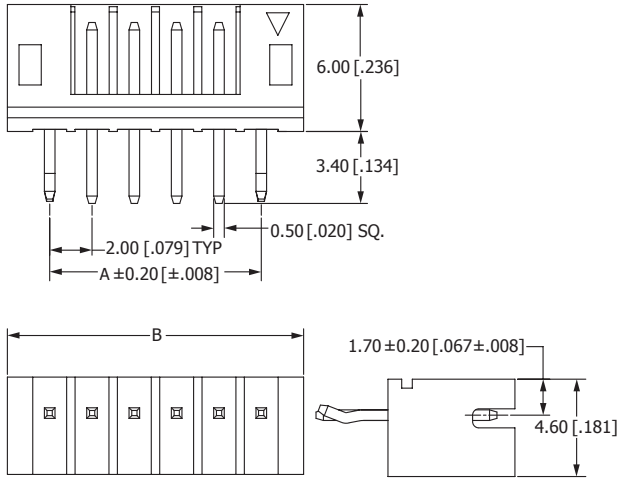


P.C. BOARD THICKNESS: 0.80 [.031”] - 1.60 [.063”]

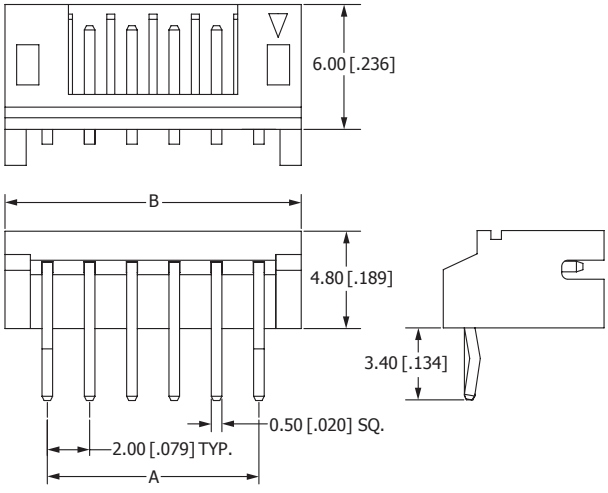
PART NUMBER	POSITIONS/ CONTACTS	A		B	
		mm	in	mm	in
SWR201-NRTN-S02-_ _-WH	02/02	2.00	0.079	5.90	0.232
SWR201-NRTN-S03-_ _-WH	03/03	4.00	0.157	7.90	0.311
SWR201-NRTN-S04-_ _-WH	04/04	6.00	0.236	9.90	0.390
SWR201-NRTN-S05-_ _-WH	05/05	8.00	0.315	11.90	0.469
SWR201-NRTN-S06-_ _-WH	06/06	10.00	0.394	13.90	0.547
SWR201-NRTN-S07-_ _-WH	07/07	12.00	0.472	15.90	0.626
SWR201-NRTN-S08-_ _-WH	08/08	14.00	0.551	17.90	0.705
SWR201-NRTN-S09-_ _-WH	09/09	16.00	0.630	19.90	0.783
SWR201-NRTN-S10-_ _-WH	10/10	18.00	0.709	21.90	0.862
SWR201-NRTN-S11-_ _-WH	11/11	20.00	0.787	23.90	0.941
SWR201-NRTN-S12-_ _-WH	12/12	22.00	0.866	25.90	1.020
SWR201-NRTN-S13-_ _-WH	13/13	24.00	0.945	27.90	1.098
SWR201-NRTN-S14-_ _-WH	14/14	26.00	1.024	29.90	1.177
SWR201-NRTN-S15-_ _-WH	15/15	28.00	1.102	31.90	1.256
SWR201-NRTN-S16-_ _-WH	16/16	30.00	1.181	33.90	1.335

DIMENSIONS Dimensions in [ ] are in inches, all others are in millimeters.

SWR201-NRTN-S_ _-SA-WH



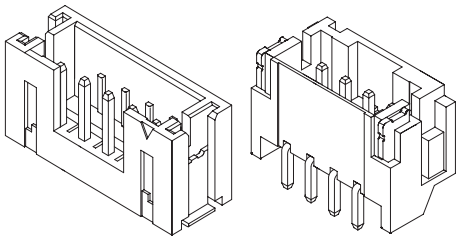
SWR201-NRTN-S_ _-RL-WH



SWR201 Series Single Row Wafer 2.00 mm [.079”] Contact Centers, SMT

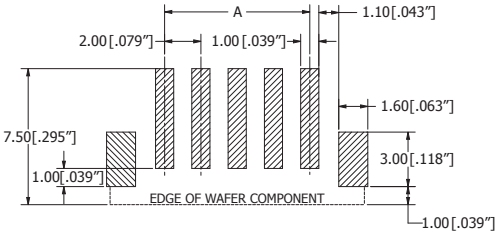
SPECIFICATIONS

- Insulator Material: Nylon, UL 94V-0 Color: Beige
- Contact Material: Brass
- Contact Resistance: 20 milli Ohms Max
- Contact Plating: .000020” Min. Nickel Underplate, Pure Tin, Bright Overall
- Current Rating: 1 Amp
- Dielectric Withstanding Voltage: 800 VAC
- Insulator Resistance: 1000 Megohms Minimum
- Operating Temperature: -25°C to +85°C
- Voltage Rating: 125 VAC/DC
- Mates with SWH201 Series Single Row Housing

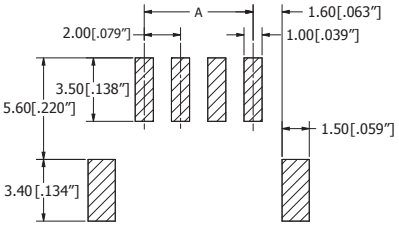


PCB LAYOUT

SWR201-NRTN-S_ _-SM-BG



SWR201-NRTN-S_ _-HM-BG



PART NUMBER OPTIONS

SWR201-NRTN-S16 -SM - BG

NUMBER OF POSITIONS
02 thru 16
See Chart Below

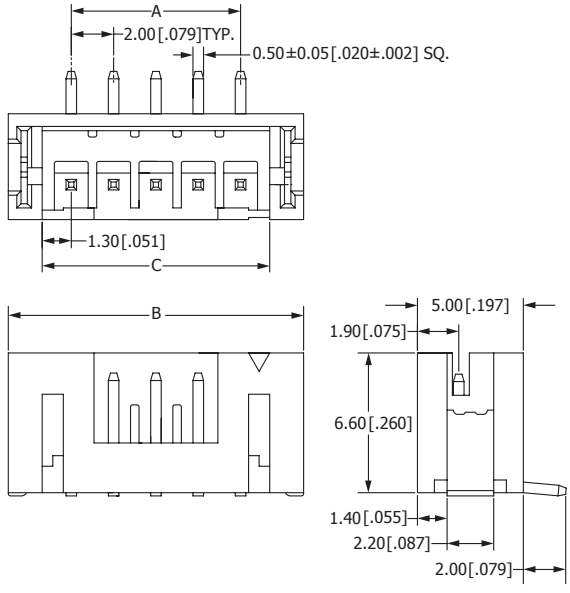
TERMINATION TYPE
SM = Surface Mount
HM = Horizontal Surface Mount

PART NUMBER	POSITIONS/ CONTACTS	A		B		C (SM)		C (HM)	
		mm	in	mm	in	mm	in	mm	in
SWR201-NRTN-S02-_ _-BG	02/02	2.00	0.079	8.00	0.315	4.60	0.181	4.80	0.189
SWR201-NRTN-S03-_ _-BG	03/03	4.00	0.157	10.00	0.394	6.60	0.260	6.80	0.268
SWR201-NRTN-S04-_ _-BG	04/04	6.00	0.236	12.00	0.472	8.60	0.339	8.80	0.346
SWR201-NRTN-S05-_ _-BG	05/05	8.00	0.315	14.00	0.551	10.60	0.417	10.80	0.425
SWR201-NRTN-S06-_ _-BG	06/06	10.00	0.394	16.00	0.630	12.60	0.496	12.80	0.504
SWR201-NRTN-S07-_ _-BG	07/07	12.00	0.472	18.00	0.709	14.60	0.575	14.80	0.583
SWR201-NRTN-S08-_ _-BG	08/08	14.00	0.551	20.00	0.787	16.60	0.654	16.80	0.661
SWR201-NRTN-S09-_ _-BG	09/09	16.00	0.630	22.00	0.866	18.60	0.732	18.80	0.740
SWR201-NRTN-S10-_ _-BG	10/10	18.00	0.709	24.00	0.945	20.60	0.811	20.80	0.819
SWR201-NRTN-S11-_ _-BG	11/11	20.00	0.787	26.00	1.024	22.60	0.890	22.80	0.898
SWR201-NRTN-S12-_ _-BG	12/12	22.00	0.866	28.00	1.102	24.60	0.969	24.80	0.976
SWR201-NRTN-S13-_ _-BG	13/13	24.00	0.945	30.00	1.181	26.60	1.047	26.80	1.055
SWR201-NRTN-S14-_ _-BG	14/14	26.00	1.024	32.00	1.260	28.60	1.126	28.80	1.134
SWR201-NRTN-S15-_ _-BG	15/15	28.00	1.102	34.00	1.339	30.60	1.205	30.80	1.213
SWR201-NRTN-S16-_ _-BG	16/16	30.00	1.181	36.00	1.417	32.60	1.283	32.80	1.291

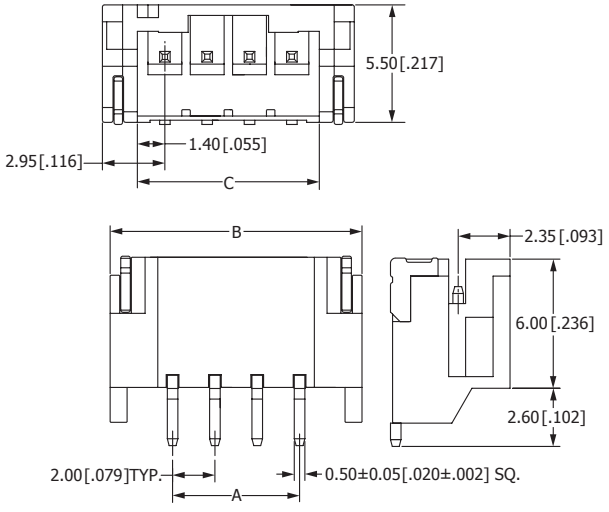
DIMENSIONS

Dimensions in [ ] are in inches, all others are in millimeters.

SWR201-NRTN-S_ _-SM-BG



SWR201-NRTN-S_ _-HM-BG

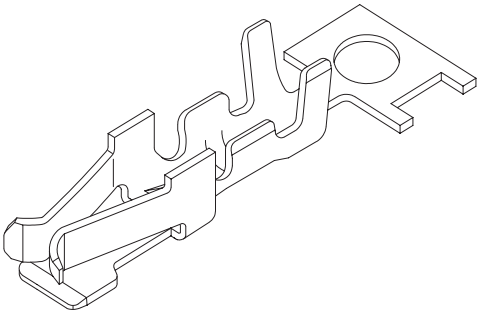


SULLINS

SWT204 Series Crimp Terminal

SPECIFICATIONS

- Material: Phosphor Bronze
- Plating: See Part Number Options
- Contact Resistance: 10 milli Ohms Max
- Current Rating: 3 Amps
- Wire Range: AWG #22 - #26
- Insulation O.D.: Ø1.35mm ~ Ø1.70mm
- Quantity Per Reel = 10,000 Pieces
- Used In SWH204 Series Housing



PART NUMBER OPTIONS

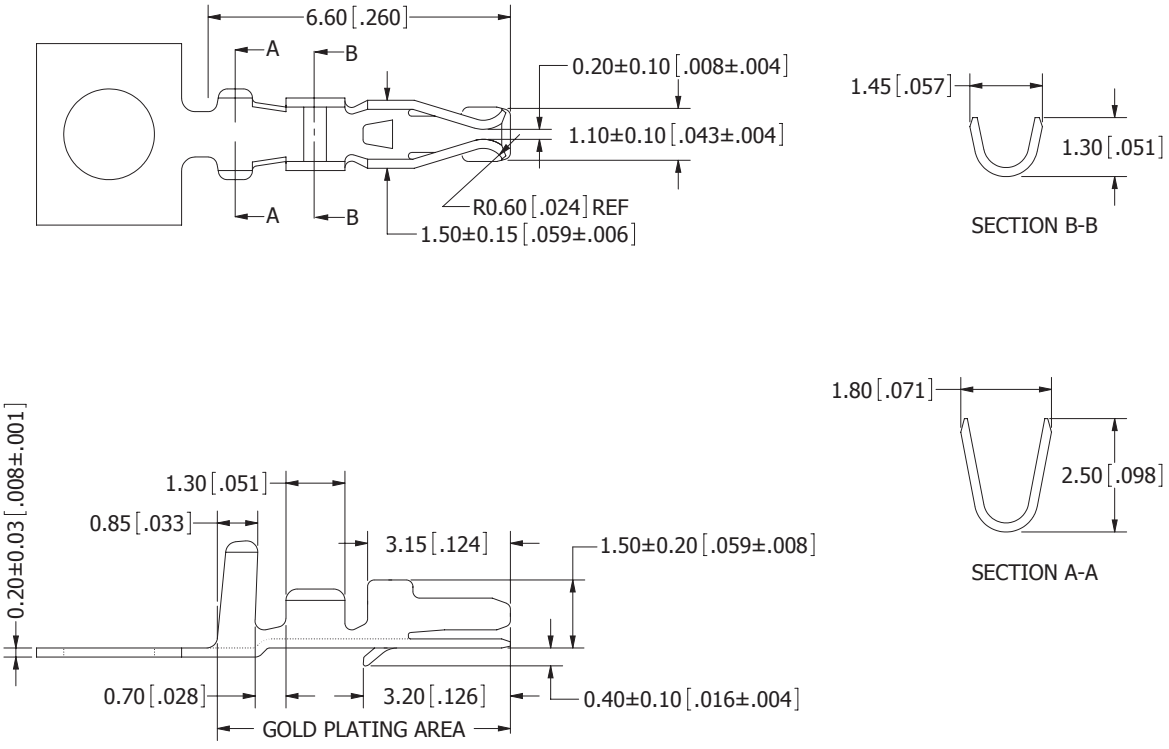
SWT204-UPTN-S01-UU-UU

CONTACT FINISH - RoHS Compliant

T = .000015" Min Nickel Underplate, .000040" Min Pure Tin, Bright Overall
P = .000040" Min Nickel Underplate, Gold Flash Overall

DIMENSIONS

Dimensions in [ ] are in inches, all others are in millimeters.



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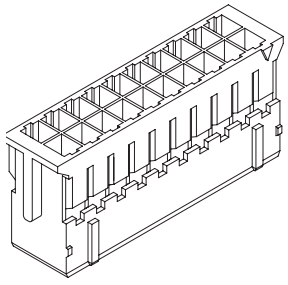
SWH204 Series Housing 2.00 mm [.079”] Contact Centers

SPECIFICATIONS

- Insulator Material: Nylon, UL 94V-0 Color: White
- Dielectric Withstanding Voltage: 800 VAC
- Insulator Resistance: 1000 Megohms Minimum
- Operating Temperature: -25°C to +85°C
- Voltage Rating: 50 VAC/DC
- Suitable for SWT204 Series Terminal
- Mates with SWR204 Series Dual Row Wafer



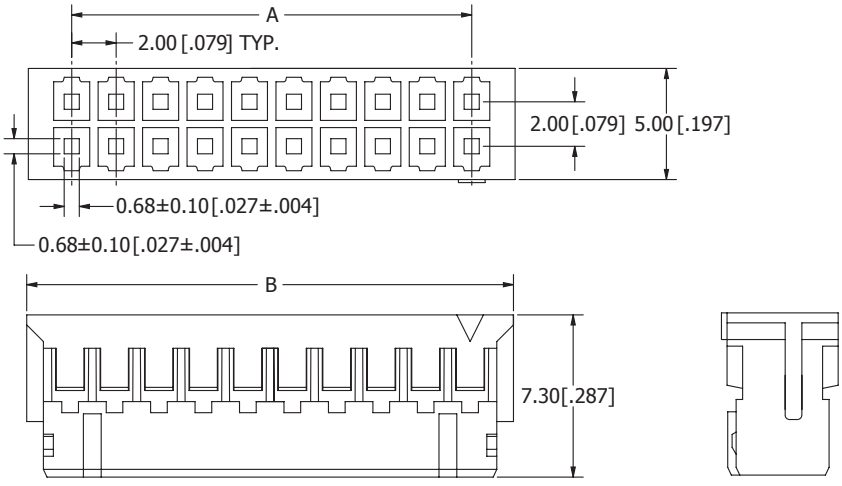
PART NUMBER OPTIONS

SWH204-NULN-D16-UU-WH

NUMBER OF POSITIONS
02 thru 17 & 20
See Chart Below

DIMENSIONS

Dimensions in [ ] are in inches, all others are in millimeters.

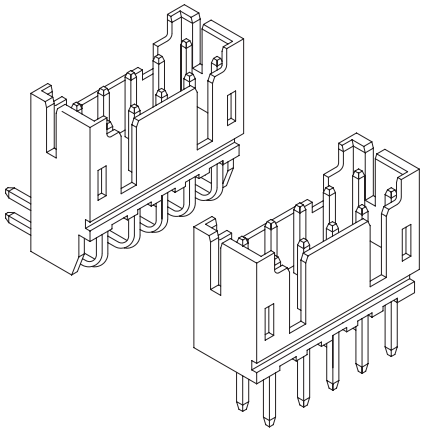


PART NUMBER	POSITIONS/ CONTACTS	A		B	
		mm	in	mm	in
SWH204-NULN-D02-UU-WH	02/04	2.00	0.079	5.90	0.232
SWH204-NULN-D03-UU-WH	03/06	4.00	0.157	7.90	0.311
SWH204-NULN-D04-UU-WH	04/08	6.00	0.236	9.90	0.390
SWH204-NULN-D05-UU-WH	05/10	8.00	0.315	11.90	0.469
SWH204-NULN-D06-UU-WH	06/12	10.00	0.394	13.90	0.547
SWH204-NULN-D07-UU-WH	07/14	12.00	0.472	15.90	0.626
SWH204-NULN-D08-UU-WH	08/16	14.00	0.551	17.90	0.705
SWH204-NULN-D09-UU-WH	09/18	16.00	0.630	19.90	0.783
SWH204-NULN-D10-UU-WH	10/20	18.00	0.709	21.90	0.862
SWH204-NULN-D11-UU-WH	11/22	20.00	0.787	23.90	0.941
SWH204-NULN-D12-UU-WH	12/24	22.00	0.866	25.90	1.020
SWH204-NULN-D13-UU-WH	13/26	24.00	0.945	27.90	1.098
SWH204-NULN-D14-UU-WH	14/28	26.00	1.024	29.90	1.177
SWH204-NULN-D15-UU-WH	15/30	28.00	1.102	31.90	1.256
SWH204-NULN-D16-UU-WH	16/32	30.00	1.181	33.90	1.335
SWH204-NULN-D17-UU-WH	17/34	32.00	1.260	35.90	1.413
SWH204-NULN-D20-UU-WH	20/40	38.00	1.496	41.90	1.650

SWR204 Series Dual Row Wafer 2.0 mm [.079”] Contact Centers, Straight/Right Angle

SPECIFICATIONS

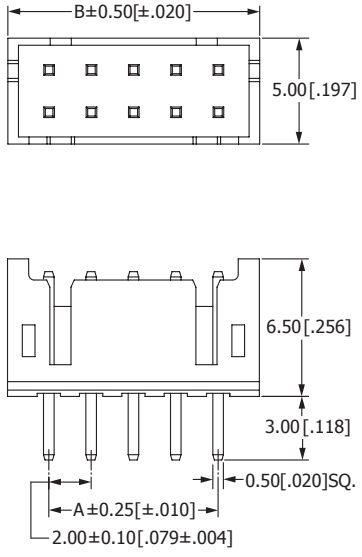
- Insulator Material: Nylon, UL 94V-0 Color: Natural
- Contact Material: Brass
- Contact Resistance: 10 milli Ohms Max
- Contact Plating: .000020” Min. Nickel Underplate, Pure Tin, Bright Overall
- Current Rating: 3 Amps
- Dielectric Withstanding Voltage: 800 VAC
- Insulator Resistance: 1000 Megohms Minimum
- Operating Temperature: -25°C to +85°C
- Voltage Rating: 50 VAC/DC
- Mates with SWH204 Series Dual Row Housing



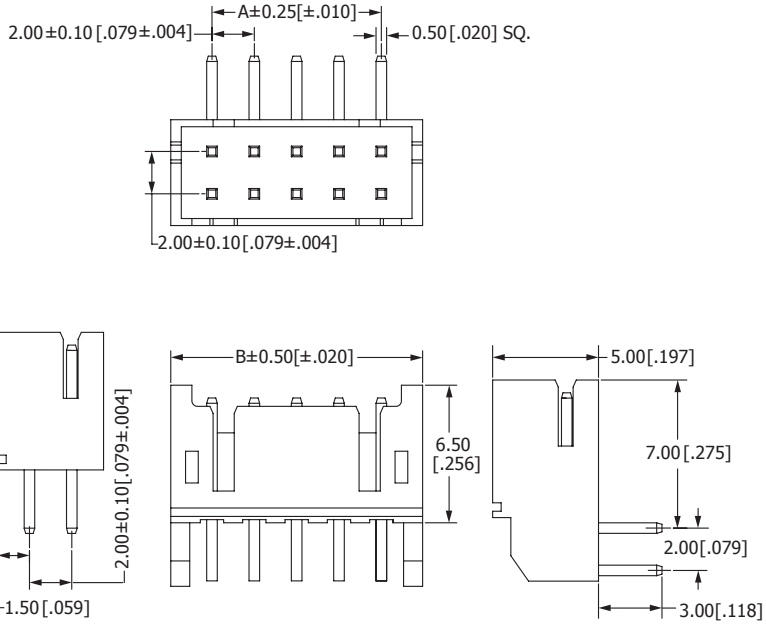
DIMENSIONS

Dimensions in [ ] are in inches, all others are in millimeters.

SWR204-NRTN-D_ _-ST-GA



SWR204-NRTN-D_ _-RA-GA



SWR204 Series Dual Row Wafer 2.0 mm [.079”] Contact Centers, Straight/Right Angle

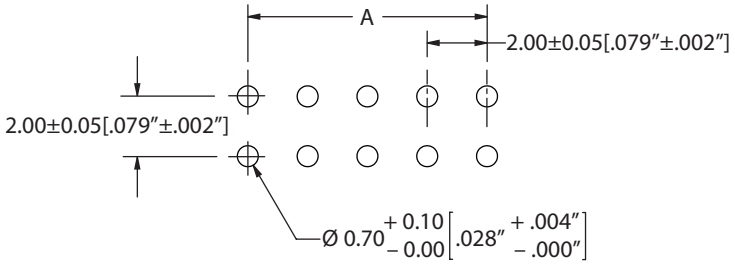
PART NUMBER OPTIONS

SWR204-NRTN-D16 -ST - GA

NUMBER OF POSITIONS
02 thru 17 & 20
See Chart Below

TERMINATION TYPE
ST = Straight
RA = Right Angle

PCB LAYOUT



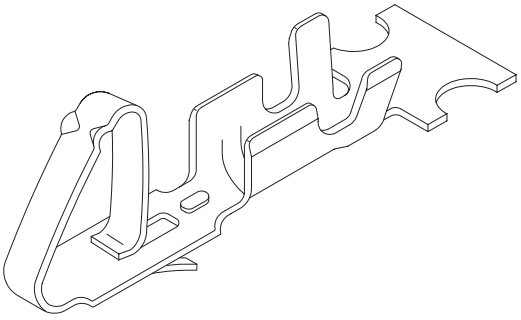
P.C. BOARD THICKNESS: 1.60 [.063”]

PART NUMBER	POSITIONS/ CONTACTS	A		B	
		mm	in	mm	in
SWR204-NRTN-D02-_ _-GA	02/04	2.00	0.079	5.90	0.232
SWR204-NRTN-D03-_ _-GA	03/06	4.00	0.157	7.90	0.311
SWR204-NRTN-D04-_ _-GA	04/08	6.00	0.236	9.90	0.390
SWR204-NRTN-D05-_ _-GA	05/10	8.00	0.315	11.90	0.469
SWR204-NRTN-D06-_ _-GA	06/12	10.00	0.394	13.90	0.547
SWR204-NRTN-D07-_ _-GA	07/14	12.00	0.472	15.90	0.626
SWR204-NRTN-D08-_ _-GA	08/16	14.00	0.551	17.90	0.705
SWR204-NRTN-D09-_ _-GA	09/18	16.00	0.630	19.90	0.783
SWR204-NRTN-D10-_ _-GA	10/20	18.00	0.709	21.90	0.862
SWR204-NRTN-D11-_ _-GA	11/22	20.00	0.787	23.90	0.941
SWR204-NRTN-D12-_ _-GA	12/24	22.00	0.866	25.90	1.020
SWR204-NRTN-D13-_ _-GA	13/26	24.00	0.945	27.90	1.098
SWR204-NRTN-D14-_ _-GA	14/28	26.00	1.024	29.90	1.177
SWR204-NRTN-D15-_ _-GA	15/30	28.00	1.102	31.90	1.256
SWR204-NRTN-D16-_ _-GA	16/32	30.00	1.181	33.90	1.335
SWR204-NRTN-D17-_ _-GA	17/34	32.00	1.260	35.90	1.413
SWR204-NRTN-D20-_ _-GA	20/40	38.00	1.496	41.90	1.650

SWT25X Series Crimp Terminal

SPECIFICATIONS

- Material: See Part Number Options
- Plating: See Part Number Options
- Contact Resistance: 20 milli Ohms Max
- Current Rating: 3 Amps
- Wire Range: AWG #20 - #26
- Insulation O.D.: Ø1.35 mm ~ Ø1.90 mm
- Quantity Per Reel = 10,000 Pieces
- Used In SWH25X Series Housing



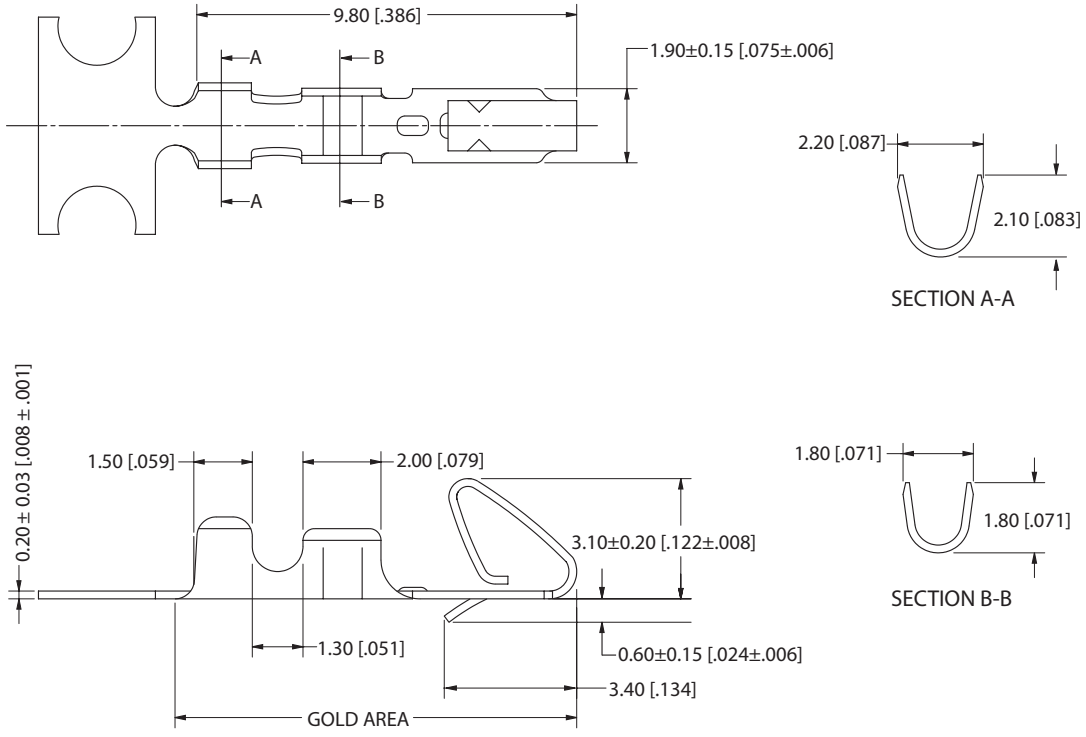
PART NUMBER OPTIONS

SWT25X-URTC-S01-UU-UU

MATERIAL & PLATING

RT = Brass, .000015" Min Nickel Underplate, .000040" Min Pure Tin, Bright Overall
PT = Phosphor Bronze, .000015" Min Nickel Underplate, .000040" Min Pure Tin, Bright Overall
RP = Brass, .000040" Min Nickel Underplate, Gold Flash Overall

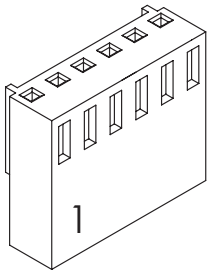
DIMENSIONS Dimensions in [ ] are in inches, all others are in millimeters.



SWH25X Series Housing 2.54 mm [.100”] Contact Centers

SPECIFICATIONS

- Insulator Material: Nylon, UL 94V-2 Color: Beige
- Dielectric Withstanding Voltage: 1000 VAC
- Insulator Resistance: 1000 Megohms Minimum
- Operating Temperature: -25°C to +85°C
- Voltage Rating: 250 VAC/DC
- Suitable for SWT25X Series Terminal
- Mates with SWR25X Series Single Row Wafer



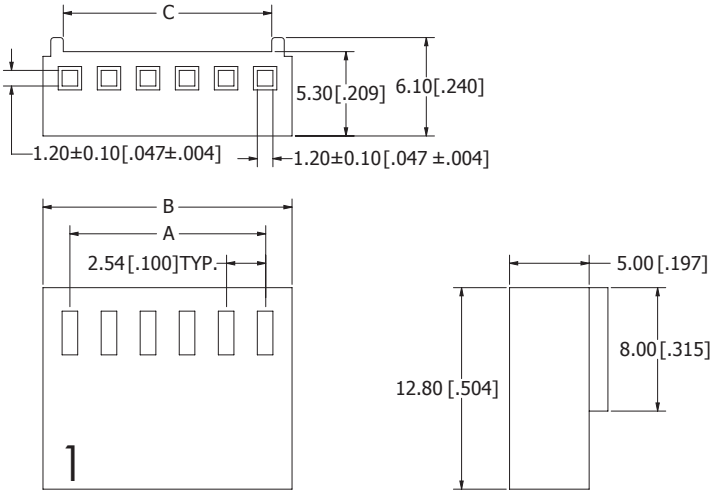
PART NUMBER OPTIONS

SWH25X-NULC-S16-UU-BA

NUMBER OF POSITIONS
02 thru 20

DIMENSIONS

Dimensions in [ ] are in inches, all others are in millimeters.



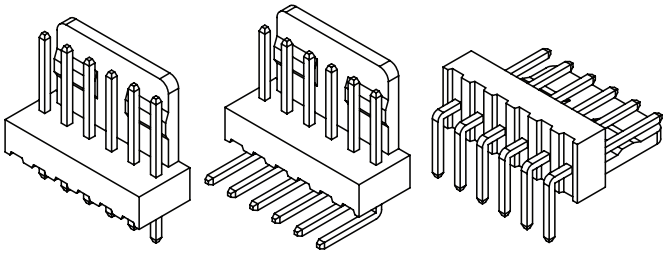
PART NUMBER	POSITIONS/ CONTACTS	A		B		C	
		mm	in	mm	in	mm	in
SWH25X-NULC-S02-UU-BA	02/02	2.54	0.100	5.79	0.228	3.07	0.121
SWH25X-NULC-S03-UU-BA	03/03	5.08	0.200	8.33	0.328	5.61	0.221
SWH25X-NULC-S04-UU-BA	04/04	7.62	0.300	10.87	0.428	8.15	0.321
SWH25X-NULC-S05-UU-BA	05/05	10.16	0.400	13.41	0.528	10.69	0.421
SWH25X-NULC-S06-UU-BA	06/06	12.70	0.500	15.95	0.628	13.23	0.521
SWH25X-NULC-S07-UU-BA	07/07	15.24	0.600	18.49	0.728	15.77	0.621
SWH25X-NULC-S08-UU-BA	08/08	17.78	0.700	21.03	0.828	18.31	0.721
SWH25X-NULC-S09-UU-BA	09/09	20.32	0.800	23.57	0.928	20.85	0.821
SWH25X-NULC-S10-UU-BA	10/10	22.86	0.900	26.11	1.028	23.39	0.921
SWH25X-NULC-S11-UU-BA	11/11	25.40	1.000	28.65	1.128	25.93	1.021
SWH25X-NULC-S12-UU-BA	12/12	27.94	1.100	31.19	1.228	28.47	1.121
SWH25X-NULC-S13-UU-BA	13/13	30.48	1.200	33.73	1.328	31.01	1.221
SWH25X-NULC-S14-UU-BA	14/14	33.02	1.300	36.27	1.428	33.55	1.321
SWH25X-NULC-S15-UU-BA	15/15	35.56	1.400	38.81	1.528	36.09	1.421
SWH25X-NULC-S16-UU-BA	16/16	38.10	1.500	41.35	1.628	38.63	1.521
SWH25X-NULC-S17-UU-BA	17/17	40.64	1.600	43.89	1.728	41.17	1.621
SWH25X-NULC-S18-UU-BA	18/18	43.18	1.700	46.43	1.828	43.71	1.721
SWH25X-NULC-S19-UU-BA	19/19	45.72	1.800	48.97	1.928	46.25	1.821
SWH25X-NULC-S20-UU-BA	20/20	48.26	1.900	51.51	2.028	48.79	1.921

SWR25X Series Single Row Wafer 2.54 mm [.100”] Contact Centers, Straight/Right Angle

SPECIFICATIONS

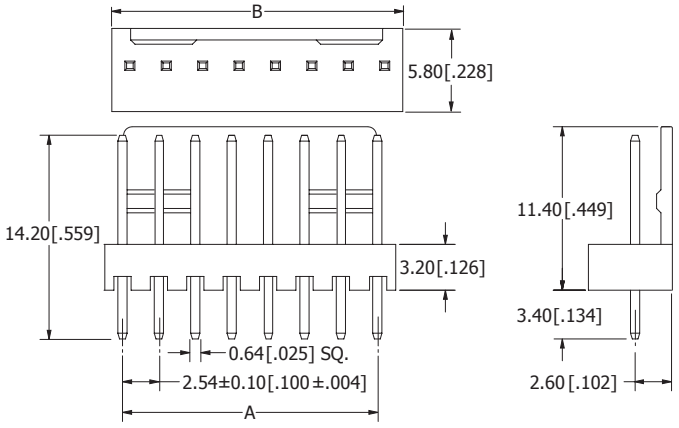
- Insulator Material: Nylon, UL 94V-2, Color: Beige
- Contact Material: Brass
- Contact Resistance: 20 milli Ohms Max
- Contact Plating: .000020” Min. Nickel Underplate, Pure Tin, Bright Overall
- Current Rating: 3 Amps
- Dielectric Withstanding Voltage: 1000 VAC
- Insulator Resistance: 1000 Megohms Minimum
- Operating Temperature: -25°C to +85°C
- Voltage Rating: 250 VAC/DC
- Mates with SWH25X Series Single Row Housing

(ST) STRAIGHT **(RA) TYPE 2** **(RB) TYPE 1**

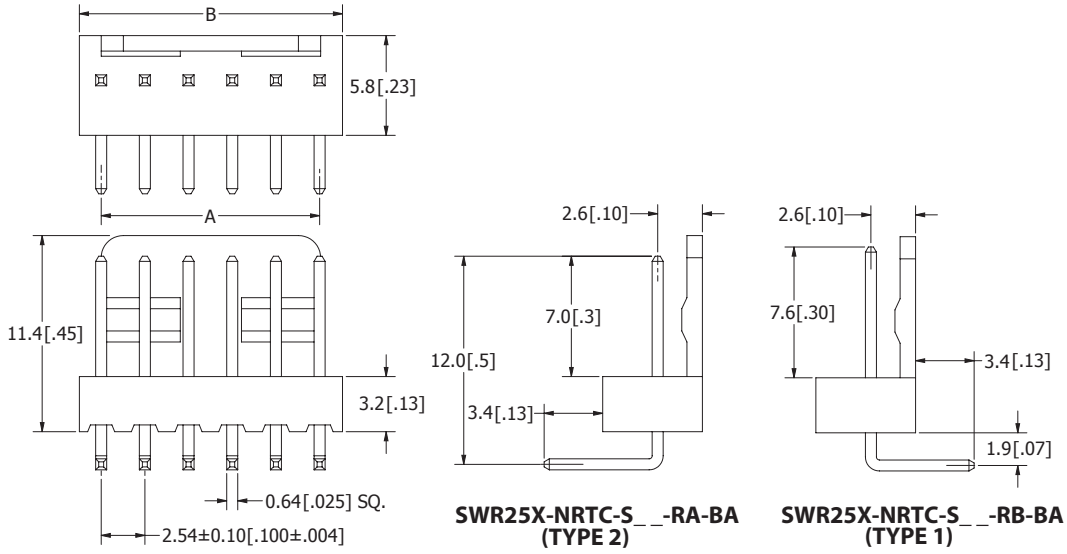


DIMENSIONS

Dimensions in [ ] are in inches, all others are in millimeters.



06 - 20 POSITIONS **SWR25X-NRTC-S_ _-ST-BA**



06-20 POSITIONS

SWR25X-NRTC-S_ _-RA-BA (TYPE 2)

SWR25X-NRTC-S_ _-RB-BA (TYPE 1)

SWR25X Series Single Row Wafer 2.54 mm [.100”] Contact Centers, Straight/Right Angle

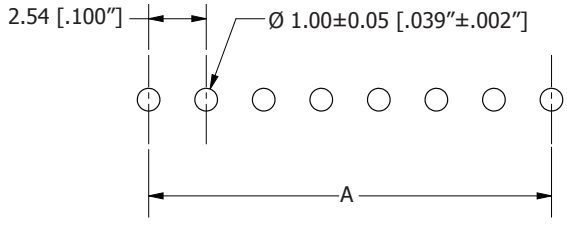
PART NUMBER OPTIONS

SWR25X-NRTC-S16 -ST - BA

NUMBER OF POSITIONS
02 thru 20
See Chart Below

TERMINATION TYPE
ST = Straight
RA = Right Angle (Type 2)
RB = Right Angle (Type 1)

PCB LAYOUT



P.C. BOARD THICKNESS: 1.60 [.063”]

PART NUMBER	POSITIONS/ CONTACTS	A		B	
		mm	in	mm	in
SWR25X-NRTC-S02-_ _-BA	02/02	2.54	0.100	5.12	0.202
SWR25X-NRTC-S03-_ _-BA	03/03	5.08	0.200	7.66	0.302
SWR25X-NRTC-S04-_ _-BA	04/04	7.62	0.300	10.20	0.402
SWR25X-NRTC-S05-_ _-BA	05/05	10.16	0.400	12.74	0.502
SWR25X-NRTC-S06-_ _-BA	06/06	12.70	0.500	15.30	0.602
SWR25X-NRTC-S07-_ _-BA	07/07	15.24	0.600	17.94	0.706
SWR25X-NRTC-S08-_ _-BA	08/08	17.78	0.700	20.48	0.806
SWR25X-NRTC-S09-_ _-BA	09/09	20.32	0.800	23.02	0.906
SWR25X-NRTC-S10-_ _-BA	10/10	22.86	0.900	25.58	1.007
SWR25X-NRTC-S11-_ _-BA	11/11	25.40	1.000	28.12	1.107
SWR25X-NRTC-S12-_ _-BA	12/12	27.94	1.100	30.68	1.208
SWR25X-NRTC-S13-_ _-BA	13/13	30.48	1.200	33.10	1.303
SWR25X-NRTC-S14-_ _-BA	14/14	33.02	1.300	35.80	1.409
SWR25X-NRTC-S15-_ _-BA	15/15	35.56	1.400	38.34	1.509
SWR25X-NRTC-S16-_ _-BA	16/16	38.10	1.500	40.94	1.612
SWR25X-NRTC-S17-_ _-BA	17/17	40.64	1.600	43.30	1.705
SWR25X-NRTC-S18-_ _-BA	18/18	43.18	1.700	45.90	1.807
SWR25X-NRTC-S19-_ _-BA	19/19	45.72	1.800	48.56	1.912
SWR25X-NRTC-S20-_ _-BA	20/20	48.26	1.900	50.80	2.000

GENERAL SPECIFICATIONS

RoHS COMPLIANT

RoHS COMPLIANT

All parts are currently manufactured with recommended materials to meet RoHS standards. All contacts have 50u" of nickel underplate, and a large selection of plating options: Pure tin matte, overall gold, or selective gold plating. For complete part number information refer to opposite page of this catalog. For operating/processing temperature parameters, visit the RoHS section of our website.

MATERIALS

To determine Assembly Operating Temperature, take the lower of two temperatures

Insulator:

			Operating Temperature	Processing Temperature
Standard	PBT, Valox*	Glass filled Thermoplastic Polyester	-65°C to +130°C	Wave only
Special	PPS, Ryton*	Glass/Mineral filled Polyphenylene Sulfide, Green	-65°C to +220°C	260°C Max. / 20 Seconds
Special	PPS, Ryton*	Glass filled Polyphenylene Sulfide, Brown	-65°C to +200°C	260°C Max. / 20 Seconds
Special	PA9T	High Temperature Polyamide	-65°C to +150°C	260°C Max. / 20 Seconds
Special	PEEK	Glass filled Polyetheretherketone	-65°C to +250°C	

Contacts:

Standard	Phosphor Bronze (Available in All Contact Styles)	-65°C to +125°C
Special	Beryllium Copper (Consult Factory)	-65°C to +150°C
Special	Spinodal** (Consult Factory)	-65°C to +200°C

Plating:

Plating is Lead Free with Nickel Underplate, offered in Gold (Selective or Overall) and Pure Tin Overall.

UL/CUL File Number: E64287

CAGE CODE: 31223

ECCN: EAR99

INTERNATIONAL HARMONIZED CODE: 8536.69.4040

MECHANICAL

Board Insertion Force: 16 oz Maximum per contact pair using .062" [1.57 mm] thick steel test blade.
Board Withdrawal Force: 1 oz Minimum per contact pair using .062" [1.57 mm] thick steel test blade.

Special Insertion/Withdrawal forces available upon request.

ELECTRICAL

Insulation Resistance:	5,000 Megohms					
Contact Centers:	.039" [1 mm]	.050" [1.27 mm]	.100" [2.54 mm]	.125" [3.18 mm]	.150" [3.81 mm]	.156" [3.96 mm]
Operating Voltage:	225 VAC	300 VAC	700 VAC	750 VAC	850 VAC	950 VAC
DWV:	675 VAC	900 VAC	2100 VAC	2250 VAC	2550 VAC	2850 VAC
Current Rating:	1 to 5 Amp per contact					
Contact Resistance:	30 milli Ohms maximum at rated current					

* Or equivalent.
** Consult factory for special soldering guidelines.

Registered Trademarks

Sabic Innovative Plastics: Valox
Gardner-Denver Co.: Wire Wrap
Phillips 66: Ryton
Ametek: Spinodal
RTP Compounder: PEEK
Underwriters Labs: UL
Sullins Electronics: Sullins
Sullins Electronics: Zero Lead Time

PART NUMBER OPTIONS

_MP_ _ - 0 100 - 22 - D W - 5 xxx

PLATING - RoHS Compliant

All platings are Lead Free and have .000050" Nickel underplate

	Contact Surface	Termination
*MPSL =	.000010" Gold	.000100" Pure Tin Matte
*EMPSL =	.000010" Gold	.000100" Pure Tin Matte
*MPL =	.000100" Overall Pure Tin, Matte	
*EMPL =	.000100" Overall Pure Tin, Matte	
MP =	.000010" Overall Gold	
EMP =	.000010" Overall Gold	
MPP =	Spinodal Contact Material (Overall Gold Only)	
EMPP =	Spinodal Contact Material (Overall Gold Only)	

***Tin Requires 'K' Modification Code**

Use 'E' code for Economy Eyelet Only
See Modification codes for alternate plating

INSULATOR MATERIAL

All Materials are U.L. Approved 94V-0

0 = PBT, Blue
1 = PPS, Brown
2 = PBT, Green
3 = PBT, Black
4 = PA9T, Black
5 = PPS, Black
6 = PPS, Green
7 = PPS, Brown
8 = PEEK, Natural

CONTACT CENTERS

100 = .100" [2.54 mm]
125 = .125" [3.18 mm]
150 = .150" [3.84 mm]
156 = .156" [3.96 mm]

NUMBER OF POSITIONS

02 - 70 Contacts Per Row

READOUT

D = Dual Row

TERMINATION TYPE

FS = .045" Square Tails
.720" Insulator Height
P = Solder Eyelet
.431" Insulator Height
PE = Economy Eyelet, .156" Pitch only
.431" Insulator Height, Card Extender
R = .025" Round Tails
.610" Insulator Height
S = Dip Solder - .431" Insulator Height
SE = Card Extender - .431" Insulator Height
W = .025" Square Wire Wrap
.610" Insulator Height
WE = .025" Square Card Extender
.610" Insulator Height

MOUNTING STYLE

1 = .125" Clearance Holes
.245" Ears, .431" Insulator
.250" Flush Ears, .610" Insulator

2 = #4-40 Threaded Insert
.245" Ears, .431" Insulator
.250" Flush Ears, .610" Insulator

3 = Floating Bobbin
.220" Ears not Including Bobbin
(Flush Ears on .610" Insulator)

4 = No Mounting Ears
All Connectors

5 = Raised with .125" Clearance Holes
Wire Wrap/Thru Hole,
Only available in .610" Insulator

6 = Raised with #4-40 Threaded Insert
Wire Wrap/Thru Hole,
Only available in .610" Insulator

8 = .125" Side Holes (Cross Drilled)

9 = One Ear, .125" Clearance Hole
.431" Insulator, Dip Solder & Eyelet

10 = One Ear, #4-40 Threaded Insert
.431" Insulator, Dip Solder & Eyelet

11 = .142" Mounting Holes
.431" Insulator, Dip Solder, Eyelet
.610" Insulator , .025" Sq & Round

12 = .128" Clearance Holes
.431" Insulator, Dip Solder & Eyelet
.610" Insulator, .025" Sq & Round

13 = Flush Ears, .128" Clearance Holes
.430" Ears with Pad on .610" Insulator Height, Wire Wrap Only

14 = .142" Side Holes (Cross Drilled)
.431" Insulator, Dip Solder & Eyelet
.610" Insulator, .025" Sq & Round

15 = Flush Ears, .125" Clearance Holes
.190" Ears, No Pad
.610" Insulator, .025" Sq & Round

16 = Flush .250" Ears to top of the Card Entry Side of the Connector,
.610" Insulator, .025" Sq & Round

18 = Flush Ears, .125" Side Holes
(Cross Drilled)

19 = .152" Clearance Holes
.610" Insulator, .025" Sq & Round

58 = Raised Ears, .125" Side Holes
(Cross Drilled)

81 = Flush Ears, .125" Side Holes
.250" Ears with Pad,
.610" Insulator, .025" Sq & Round

86 = Side Holes with #4-40 Threaded Insert
.250" Ears with Pad,
.610" Insulator, .025" Sq & Round

MODIFICATION CODE

CONSULT FACTORY FOR OTHER OPTIONS

A = Contacts Loaded one side only

B = Center Barrier for 28/56 -
.156" Dip Solder & Eyelet

C = .030" Longer Card slot and Mounting Hole Centers for 22/44,
All .156" (Consult Factory)

D = .000050" Gold Plating -
(Consult Factory)

E9 = .200" Row Spacing on .156" Contact Centers

F = 6.802" Card slot for 43/86
.156" Eyelet & Wire Wrap Only

F9 = 6.802" Card slot & .200" Row Spacing for 43/86 Dip Solder Only

G = .000030" Gold Plating on Contact Surface; .000010" Gold Overall

H = .190" Contact Length for
.025" Square & .026" Round Contacts
.250" Contact Length
without Standoffs

J = Low Insertion Force

K = MPSL - Selective Gold with Pure Tin, Matte Plating on Tails
MPL - Overall Pure Tin, Matte

L = .140" Contact Length
for .156" Dip Solder Only

M = Pad on Bottom of Mounting Ears
for .156", .431" Insulator Height, Dip Solder & Eyelet Only

N = Hi-light Contact ID on Bottom
(Consult Factory)

P = Alternate Contact ID
(Consult Factory)

Q = Right Angle Connector Contacts Untrimmed
(Requires 'R' Modification Code)

R = Right Angle Connectors

S = Shorter Overall Length

T = Center Standoffs Removed
.100" & .125" Wire Wrap Only

TT = No Standoffs

U = .000020" Gold Plating

X9 = .200" Row Spacing for
.100" & .156" Dip Solder Only
.250" Row Spacing for
.125" Dip Solder Only

Y = Beryllium Copper Contacts

Z = Standoffs on .156" Wire Wrap

See applicable specification pages for more information.

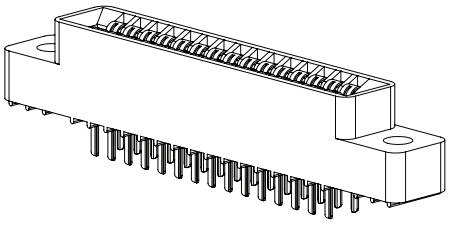
Specifications are subject to change without notice.

SULLINS

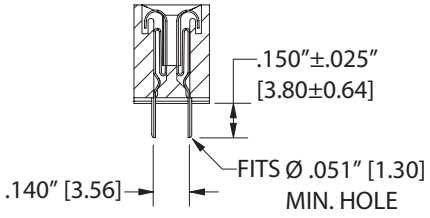
.100" [2.54 mm] Contact Centers, .431" [10.95 mm] Insulator Height, Dip Solder

SPECIFICATIONS

- Accommodates .062" ± .008" [1.57 mm ± 0.20 mm] PC Board
- Insulator Material available in PBT, PPS, or PA9T
- 3 Amps current rating for one contact energized
- Insulator / Contact Specifications and Part Number Options See Opposite Page
- Row Spacing Available in .140" [3.56 mm] or .200" [5.08 mm] (Use Modification Code 'X9' for .200" [5.08])
- P/N 04-0003-000 for In Between Contact Polarizing Key See Page 186 (Sold Separately)
- Molded-in Key Available - Consult Factory

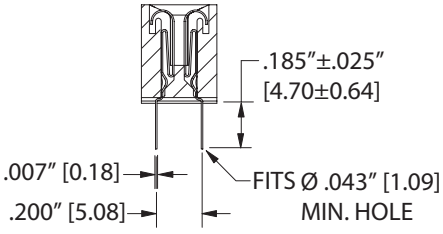


TERMINATION TYPE



DIP SOLDER (S)
.140" [3.56] ROW SPACING

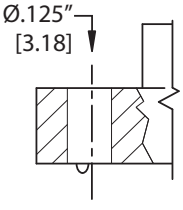
Example P/N: MPSL-0100-10-DS-1K



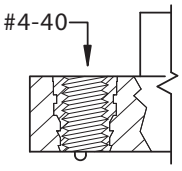
DIP SOLDER (S)
.200" [5.08] ROW SPACING
USE 'X9' MODIFICATION CODE

Example P/N: MPSL-0100-10-DS-1X9K

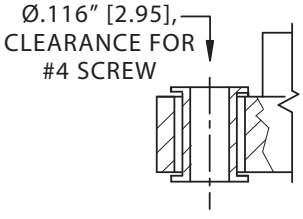
MOUNTING STYLE



(STYLE 1)



(STYLE 2)



(STYLE 3)

(STYLE 4)

.100" [2.54 mm] Contact Centers, .431" [10.95 mm] Insulator Height, Dip Solder

PART NUMBER OPTIONS

MPSL - 0 100 - 10 - D S - 1 K

PLATING - RoHS Compliant
All Platings are Lead Free and have .000050" Nickel Underplate

	Contact Surface	Termination
*MPSL =	.000010" Gold	.000100" Pure Tin, Matte
*MPL =	.000100" Overall Pure Tin, Matte	
MP =	.000010" Overall Gold	

***Requires 'K' Modification Code**
Refer to Page 142 for Operating/Processing Temperatures

INSULATOR MATERIAL**
0 = PBT

CONTACT CENTERS
100 = .100" [2.54 mm]

NUMBER OF POSITIONS
Contacts Per Row (See Position Chart Below)

MODIFICATION CODE**
K = Required on MPSL or MPL Plating
Omit for MP Plating (Overall Gold)
X9 = .200" [5.08 mm] Row Spacing

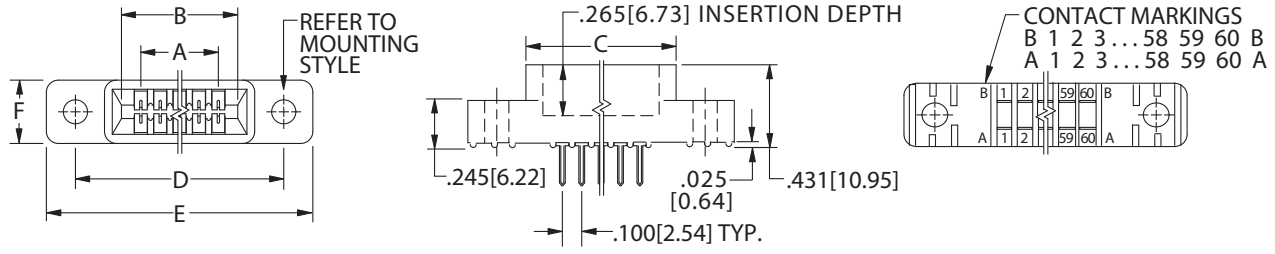
MOUNTING STYLE (See Opposite Page)
1 = .125" [3.18 mm] Clearance Hole
2 = #4-40 Threaded Insert
3 = Floating Bobbin
4 = No Mounting

TERMINATION TYPE (See Opposite Page)
S = Dip Solder

READOUT
D = Dual

** See Pages 142-143 for Specifications and other Variations

DIMENSIONS Dimensions in [ ] are in millimeters, all others are in inches.

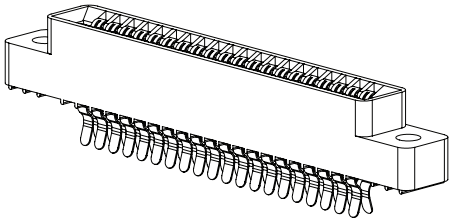


POSITIONS/ CONTACTS	INCHES						MILLIMETERS					
	A±.008	B±.008	C±.015	D±.010	E±.020	F+.005/-.015	A±0.20	B±0.20	C±0.38	D±0.25	E±0.51	F+0.13/-0.38
05/10	0.400	0.600	0.775	1.075	1.375	0.330	10.16	15.24	19.69	27.31	34.93	8.38
06/12	0.500	0.700	0.875	1.175	1.475		12.70	17.78	22.23	29.85	37.47	
07/14	0.600	0.800	0.975	1.275	1.575		15.24	20.32	24.77	32.39	40.01	
08/16	0.700	0.900	1.075	1.375	1.675		17.78	22.86	27.31	34.93	42.55	
10/20	0.900	1.100	1.275	1.575	1.875		22.86	27.94	32.39	40.01	47.63	
12/24	1.100	1.300	1.475	1.775	2.075		27.94	33.02	37.47	45.09	52.71	
13/26	1.200	1.400	1.575	1.875	2.175		30.48	35.56	40.01	47.63	55.25	
15/30	1.400	1.600	1.775	2.075	2.375		35.56	40.64	45.09	52.71	60.33	
17/34	1.600	1.800	1.975	2.275	2.575		40.64	45.72	50.17	57.79	65.41	
18/36	1.700	1.900	2.075	2.375	2.675		43.18	48.26	52.71	60.33	67.95	
19/38	1.800	2.000	2.175	2.475	2.775		45.72	50.80	55.25	62.87	70.49	
20/40	1.900	2.100	2.275	2.575	2.875		48.26	53.34	57.79	65.41	73.03	
22/44	2.100	2.300	2.475	2.775	3.075		53.34	58.42	62.87	70.49	78.11	
25/50	2.400	2.600	2.775	3.075	3.375		60.96	66.04	70.49	78.11	85.73	
26/52	2.500	2.700	2.875	3.175	3.475		63.50	68.58	73.03	80.65	88.27	
28/56	2.700	2.900	3.075	3.375	3.675		68.58	73.66	78.11	85.73	93.35	
30/60	2.900	3.100	3.275	3.575	3.875		73.66	78.74	83.19	90.81	98.43	
31/62	3.000	3.200	3.375	3.675	3.975		76.20	81.28	85.73	93.35	100.97	
35/70	3.400	3.600	3.775	4.075	4.375	0.400	86.36	91.44	95.89	103.51	111.13	10.16
36/72	3.500	3.700	3.875	4.175	4.475		88.90	93.98	98.43	106.05	113.67	
40/80	3.900	4.100	4.275	4.575	4.875		99.06	104.14	108.59	116.21	123.83	
43/86	4.200	4.400	4.575	4.875	5.175		106.68	111.76	116.21	123.83	131.45	
44/88	4.300	4.500	4.675	4.975	5.275		109.22	114.30	118.75	126.37	133.99	
49/98	4.800	5.000	5.175	5.475	5.775		121.92	127.00	131.45	139.07	146.69	
50/100	4.900	5.100	5.275	5.575	5.875		124.46	129.54	133.99	141.61	149.23	
60/120	5.900	6.100	6.275	6.575	6.875		149.86	154.94	159.39	167.01	174.63	
65/130	6.400	6.600	6.775	7.075	7.375		162.56	167.64	172.09	179.71	187.33	

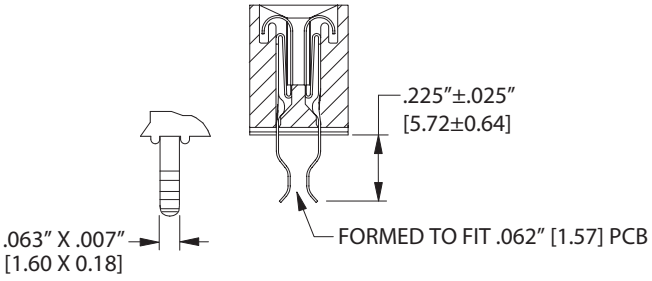
.100" [2.54 mm] Contact Centers, .431" [10.95 mm] Insulator Height, Card Extender

SPECIFICATIONS

- Accommodates .062" ± .008" [1.57 mm ± 0.20 mm] PC Board
- Insulator Material available in PBT, PPS, or PA9T
- 3 Amps current rating for one contact energized
- Insulator / Contact Specifications and Part Number Options See Opposite Page
- P/N 04-0003-000 for In Between Contact Polarizing Key See Page 186 (Sold Separately)
- Molded-in Key Available - Consult Factory



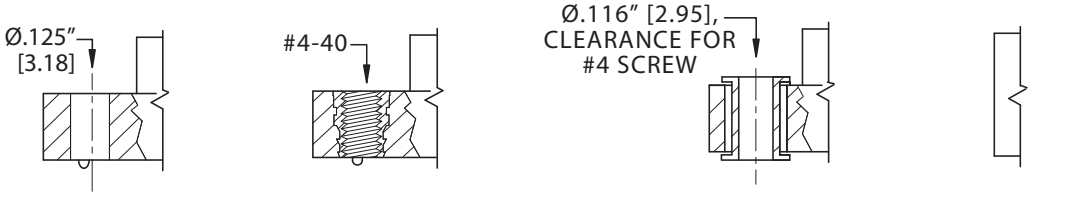
TERMINATION TYPE



CARD EXTENDER (SE)

Example P/N: MPSL-0100-10-DSE-1K

MOUNTING STYLE



(STYLE 1) **(STYLE 2)** **(STYLE 3)** **(STYLE 4)**

.100" [2.54 mm] Contact Centers, .431" [10.95 mm] Insulator Height, Card Extender

PART NUMBER OPTIONS

MPSL - 0 100 - 10 - D SE - 1 K

PLATING - RoHS Compliant
All Platings are Lead Free and have .000050" Nickel Underplate

	Contact Surface	Termination
*MPSL =	.000010" Gold	.000100" Pure Tin Matte
*MPL =	.000100" Overall Pure Tin, Matte	
MP =	.000010" Overall Gold	

*** Requires 'K' Modification Code**
Other Plating and thicknesses available upon request
Refer to Page 142 for Operating/Processing Temperatures

INSULATOR MATERIAL* *
0 = PBT

CONTACT CENTERS
100 = .100" [2.54 mm]

NUMBER OF POSITIONS
Contacts Per Row (See Position Chart Below)

PLATING MODIFICATION CODE**
K = Required on Tin Plating
Omit for MP Plating (Overall Gold)

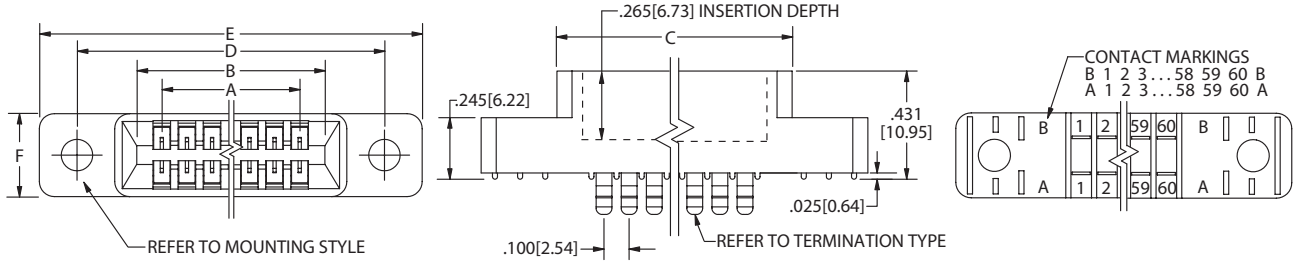
MOUNTING STYLE (See Opposite Page)
1 = .125" [3.18 mm] Clearance Hole
2 = #4-40 Threaded Insert
3 = Floating Bobbin
4 = No Mounting

TERMINATION TYPE (See Opposite Page)
SE = Card Extender

READOUT
D = Dual

** See Pages 142-143 for Specifications and other Variations

DIMENSIONS Dimensions in [ ] are in millimeters, all others are in inches.



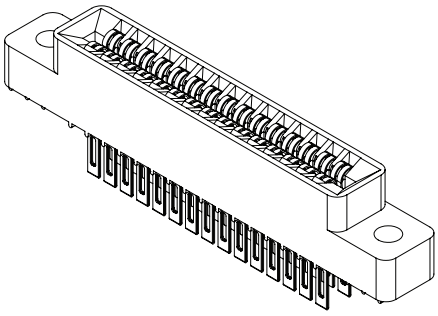
POSITIONS/ CONTACTS	INCHES						MILLIMETERS					
	A±.008	B±.008	C±.015	D±.010	E±.020	F+.005/-.015	A±0.20	B±0.20	C±0.38	D±0.25	E±0.51	F+0.13/-0.38
05/10	0.400	0.600	0.775	1.075	1.375		10.16	15.24	19.69	27.31	34.93	
06/12	0.500	0.700	0.875	1.175	1.475		12.70	17.78	22.23	29.85	37.47	
07/14	0.600	0.800	0.975	1.275	1.575		15.24	20.32	24.77	32.39	40.01	
08/16	0.700	0.900	1.075	1.375	1.675		17.78	22.86	27.31	34.93	42.55	
10/20	0.900	1.100	1.275	1.575	1.875		22.86	27.94	32.39	40.01	47.63	
12/24	1.100	1.300	1.475	1.775	2.075		27.94	33.02	37.47	45.09	52.71	
13/26	1.200	1.400	1.575	1.875	2.175		30.48	35.56	40.01	47.63	55.25	
15/30	1.400	1.600	1.775	2.075	2.375		35.56	40.64	45.09	52.71	60.33	
17/34	1.600	1.800	1.975	2.275	2.575	0.330	40.64	45.72	50.17	57.79	65.41	8.38
18/36	1.700	1.900	2.075	2.375	2.675		43.18	48.26	52.71	60.33	67.95	
19/38	1.800	2.000	2.175	2.475	2.775		45.72	50.80	55.25	62.87	70.49	
20/40	1.900	2.100	2.275	2.575	2.875		48.26	53.34	57.79	65.41	73.03	
22/44	2.100	2.300	2.475	2.775	3.075		53.34	58.42	62.87	70.49	78.11	
25/50	2.400	2.600	2.775	3.075	3.375		60.96	66.04	70.49	78.11	85.73	
26/52	2.500	2.700	2.875	3.175	3.475		63.50	68.58	73.03	80.65	88.27	
28/56	2.700	2.900	3.075	3.375	3.675		68.58	73.66	78.11	85.73	93.35	
30/60	2.900	3.100	3.275	3.575	3.875		73.66	78.74	83.19	90.81	98.43	
31/62	3.000	3.200	3.375	3.675	3.975		76.20	81.28	85.73	93.35	100.97	
35/70	3.400	3.600	3.775	4.075	4.375		86.36	91.44	95.89	103.51	111.13	
36/72	3.500	3.700	3.875	4.175	4.475		88.90	93.98	98.43	106.05	113.67	
40/80	3.900	4.100	4.275	4.575	4.875		99.06	104.14	108.59	116.21	123.83	
43/86	4.200	4.400	4.575	4.875	5.175		106.68	111.76	116.21	123.83	131.45	
44/88	4.300	4.500	4.675	4.975	5.275	0.400	109.22	114.30	118.75	126.37	133.99	10.16
49/98	4.800	5.000	5.175	5.475	5.775		121.92	127.00	131.45	139.07	146.69	
50/100	4.900	5.100	5.275	5.575	5.875		124.46	129.54	133.99	141.61	149.23	
60/120	5.900	6.100	6.275	6.575	6.875		149.86	154.94	159.39	167.01	174.63	
65/130	6.400	6.600	6.775	7.075	7.375		162.56	167.64	172.09	179.71	187.33	

SULLINS

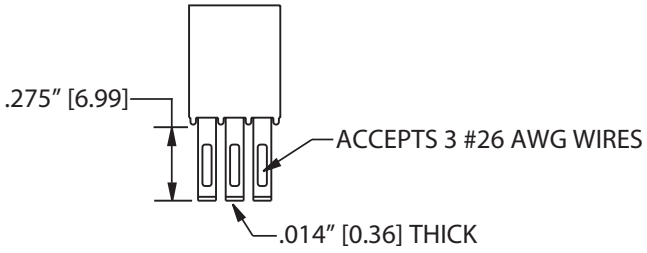
.100" [2.54 mm] Contact Centers, .431" [10.95 mm] Insulator Height, Eyelet

SPECIFICATIONS

- Accommodates .062" ± .008" [1.57 mm ± 0.20 mm] PC Board
- Insulator Material available in PBT, PPS, or PA9T
- 3 Amps current rating for one contact energized
- Insulator / Contact Specifications and Part Number Options See opposite page
- P/N 04-0003-000 for In Between Contact Polarizing Key See Page 186 (Sold Separately)
- Molded-in Key Available - Consult Factory



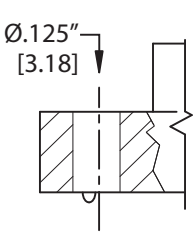
TERMINATION TYPE



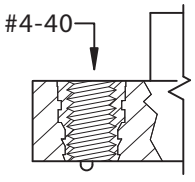
EYELET (P)

Example P/N: MP-0100-10-DP-1

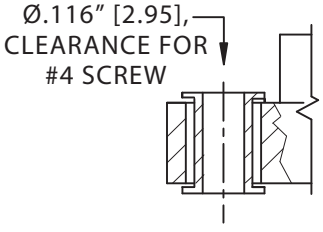
MOUNTING STYLE



(STYLE 1)



(STYLE 2)



(STYLE 3)

(STYLE 4)

.100" [2.54 mm] Contact Centers, .431" [10.95 mm] Insulator Height, Eyelet

PART NUMBER OPTIONS

MPL - 0 100 - 10 - D P - 1 K

PLATING - RoHS Compliant
All Platings are Lead Free and have .000050" Nickel Underplate
*MPL = .000100" Overall Pure Tin, Matte
MP = .000010" Overall Gold
*** Requires 'K' Modification Code**
Other Plating and thicknesses available upon request
Refer to Page 142 for Operating/Processing Temperatures

INSULATOR MATERIAL* *
0 = PBT

CONTACT CENTERS
100 = .100" [2.54 mm]

NUMBER OF POSITIONS
Contacts Per Row (See Position Chart Below)

PLATING MODIFICATION CODE**
K = Required on Tin Plating
Omit for MP Plating (Overall Gold)

MOUNTING STYLE (See Opposite Page)
1 = .125" [3.18 mm] Clearance Hole
2 = #4-40 Threaded Insert
3 = Floating Bobbin
4 = No Mounting

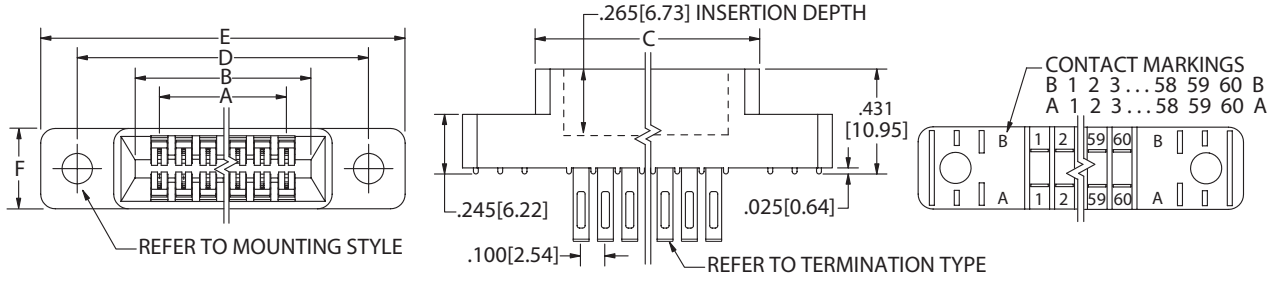
TERMINATION TYPE (See Opposite Page)
P = Pierced Eyelet, .014" [0.36 mm] Thick

READOUT
D = Dual

**** See Pages 142-143 for Specifications and other Variations**

DIMENSIONS

Dimensions in [ ] are in millimeters, all others are in inches.



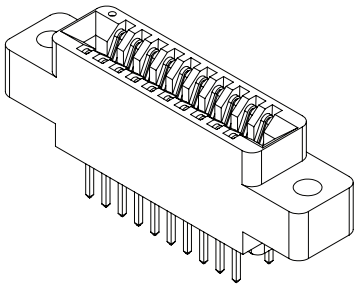
POSITIONS/ CONTACTS	INCHES						MILLIMETERS					
	A±.008	B±.008	C±.015	D±.010	E±.020	F+.005/-.015	A±0.20	B±0.20	C±0.38	D±0.25	E±0.51	F+0.13/-0.38
05/10	0.400	0.600	0.775	1.075	1.375	0.330	10.16	15.24	19.69	27.31	34.93	8.38
06/12	0.500	0.700	0.875	1.175	1.475		12.70	17.78	22.23	29.85	37.47	
07/14	0.600	0.800	0.975	1.275	1.575		15.24	20.32	24.77	32.39	40.01	
08/16	0.700	0.900	1.075	1.375	1.675		17.78	22.86	27.31	34.93	42.55	
10/20	0.900	1.100	1.275	1.575	1.875		22.86	27.94	32.39	40.01	47.63	
12/24	1.100	1.300	1.475	1.775	2.075		27.94	33.02	37.47	45.09	52.71	
13/26	1.200	1.400	1.575	1.875	2.175		30.48	35.56	40.01	47.63	55.25	
15/30	1.400	1.600	1.775	2.075	2.375		35.56	40.64	45.09	52.71	60.33	
17/34	1.600	1.800	1.975	2.275	2.575		40.64	45.72	50.17	57.79	65.41	
18/36	1.700	1.900	2.075	2.375	2.675		43.18	48.26	52.71	60.33	67.95	
19/38	1.800	2.000	2.175	2.475	2.775		45.72	50.80	55.25	62.87	70.49	
20/40	1.900	2.100	2.275	2.575	2.875		48.26	53.34	57.79	65.41	73.03	
22/44	2.100	2.300	2.475	2.775	3.075		53.34	58.42	62.87	70.49	78.11	
25/50	2.400	2.600	2.775	3.075	3.375		60.96	66.04	70.49	78.11	85.73	
26/52	2.500	2.700	2.875	3.175	3.475		63.50	68.58	73.03	80.65	88.27	
28/56	2.700	2.900	3.075	3.375	3.675		68.58	73.66	78.11	85.73	93.35	
30/60	2.900	3.100	3.275	3.575	3.875		73.66	78.74	83.19	90.81	98.43	
31/62	3.000	3.200	3.375	3.675	3.975		76.20	81.28	85.73	93.35	100.97	
35/70	3.400	3.600	3.775	4.075	4.375	0.400	86.36	91.44	95.89	103.51	111.13	10.16
36/72	3.500	3.700	3.875	4.175	4.475		88.90	93.98	98.43	106.05	113.67	
40/80	3.900	4.100	4.275	4.575	4.875		99.06	104.14	108.59	116.21	123.83	
43/86	4.200	4.400	4.575	4.875	5.175		106.68	111.76	116.21	123.83	131.45	
44/88	4.300	4.500	4.675	4.975	5.275		109.22	114.30	118.75	126.37	133.99	
49/98	4.800	5.000	5.175	5.475	5.775		121.92	127.00	131.45	139.07	146.69	
50/100	4.900	5.100	5.275	5.575	5.875		124.46	129.54	133.99	141.61	149.23	
60/120	5.900	6.100	6.275	6.575	6.875		149.86	154.94	159.39	167.01	174.63	
65/130	6.400	6.600	6.775	7.075	7.375		162.56	167.64	172.09	179.71	187.33	

SULLINS

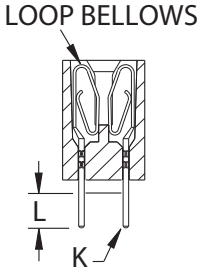
.100" [2.54 mm] Contact Centers, .610" [15.49 mm] Insulator Height, Wire Wrap & Dip Solder

SPECIFICATIONS

- Accommodates .062" ± .008" [1.57 mm ± 0.20 mm] PC Board
- Insulator Material available in PBT, PPS, or PA9T
- 3 Amps current rating for one contact energized
- Insulator / Contact Specifications and Part Number Options See opposite page
- P/N 04-0004-000 for In Between Contact Polarizing Key See Page 186 (Sold Separately)
- Molded-in Key Available - Consult Factory

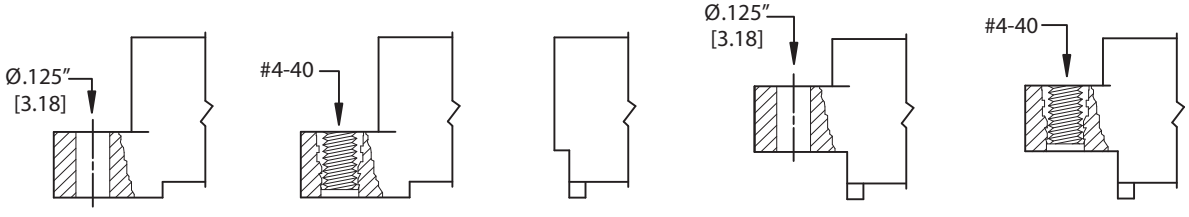


TERMINATION TYPE



TERMINATION CODE	MODIFICATION CODE	TYPE	POST CROSS SECTION K	POST LENGTH L	FITS MIN. HOLE SIZE	EXAMPLE PART NUMBER
R	H	Dip Solder	.025" [0.64] Round	.190" [4.83]	.033" [0.84]	***MPSL-0100-10-DR-1HK***
R	H(.165)	Dip Solder	.025" [0.64] Round	.165" [4.19]	.033" [0.84]	***MPSL-0100-10-DR-1HK(.165)***
W	H	Dip Solder	.025" [0.64] Square	.190" [4.83]	.040" [1.02]	***MPSL-0100-10-DW-1HK***
W	OMIT	Wire Wrap	.025" [0.64] Square	.560" [14.20]	.040" [1.02]	***MPSL-0100-10-DW-1K***

MOUNTING STYLE



(STYLE 1) **(STYLE 2)** **(STYLE 4)** **(STYLE 5)** **(STYLE 6)**

.100" [2.54 mm] Contact Centers, .610" [15.49 mm] Insulator Height, Wire Wrap & Dip Solder

PART NUMBER OPTIONS

MPSL - 0 100 - 10 - D W - 1 H K

PLATING - RoHS Compliant
All Platings are Lead Free and have .000050" Nickel Underplate

	Contact Surface	Termination
*MPSL =	.000010" Gold	.000100" Pure Tin, Matte
*MPL =	.000100" Overall Pure Tin, Matte	
MP =	.000010" Overall Gold	

***Requires 'K' Modification Code**
Refer to Page 142 for Operating/Processing Temperatures

INSULATOR MATERIAL* *
0 = PBT

CONTACT CENTERS
100 = .100" [2.54 mm]

NUMBER OF POSITIONS
Contacts Per Row (See Position Chart Below)

READOUT
D = Dual

PLATING MODIFICATION CODE**
K = Required on MPSL or MPL Plating
Omit for MP Plating (Overall Gold)

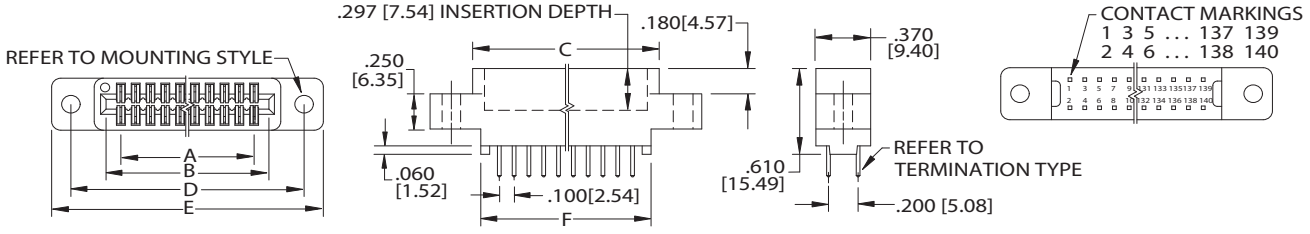
MODIFICATION CODE**
(See Opposite Page)
H = Dip Solder .190" [4.83 mm] Tail Length (.025" [0.64 mm] Round) or (.025" [0.64 mm] Square)
H(.165) = Dip Solder .165" [4.19 mm] Tail Length (.025" [0.64 mm] Round Only)

MOUNTING STYLE (See Opposite Page)
1 = .125" [3.18 mm] Clearance Hole
2 = #4-40 Threaded Insert
4 = No Mounting
5 = Raised, .125" [3.18 mm] Clearance Hole
6 = Raised, #4-40 Threaded Insert

TERMINATION TYPE (See Opposite Page)
LOOP BELLOWS
R = .025" [0.64 mm] Round
W = .025" [0.64 mm] Square

** See Pages 142-143 for Specifications and other Variations

DIMENSIONS Dimensions in [ ] are in millimeters, all others are in inches.



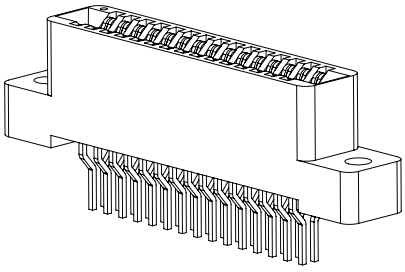
POSITIONS/ CONTACTS	INCHES						MILLIMETERS					
	A±.008	B±.008	C±.015	D±.010	E±.020	F±015	A±0.20	B±0.20	C±0.38	D±0.25	E±0.51	F±0.38
06/12	0.500	0.700	0.860	1.175	1.435	0.750	12.70	17.78	21.84	29.85	36.45	19.05
08/16	0.700	0.900	1.060	1.375	1.635	0.950	17.78	22.86	26.92	34.93	41.53	24.13
10/20	0.900	1.100	1.260	1.575	1.835	1.150	22.86	27.94	32.00	40.01	46.61	29.21
12/24	1.100	1.300	1.460	1.775	2.035	1.350	27.94	33.02	37.08	45.09	51.69	34.29
13/26	1.200	1.400	1.560	1.875	2.135	1.450	30.48	35.56	39.62	47.63	54.23	36.83
15/30	1.400	1.600	1.760	2.075	2.335	1.650	35.56	40.64	44.70	52.71	59.31	41.91
17/34	1.600	1.800	1.960	2.275	2.535	1.850	40.64	45.72	49.78	57.79	64.39	46.99
18/36	1.700	1.900	2.060	2.375	2.635	1.950	43.18	48.26	52.32	60.33	66.93	49.53
20/40	1.900	2.100	2.260	2.575	2.835	2.150	48.26	53.34	57.40	65.41	72.01	54.61
22/44	2.100	2.300	2.460	2.775	3.035	2.350	53.34	58.42	62.48	70.49	77.09	59.69
24/48	2.300	2.500	2.660	2.975	3.235	2.550	58.42	63.50	67.56	75.57	82.17	64.77
25/50	2.400	2.600	2.760	3.075	3.335	2.650	60.96	66.04	70.10	78.11	84.71	67.31
28/56	2.700	2.900	3.060	3.375	3.635	2.950	68.58	73.66	77.72	85.73	92.33	74.93
30/60	2.900	3.100	3.260	3.575	3.835	3.150	73.66	78.74	82.80	90.81	97.41	80.01
31/62	3.000	3.200	3.360	3.675	3.935	3.250	76.20	81.28	85.34	93.35	99.95	82.55
35/70	3.400	3.600	3.760	4.075	4.335	3.650	86.36	91.44	95.50	103.51	110.11	92.71
36/72	3.500	3.700	3.860	4.175	4.435	3.750	88.90	93.98	98.04	106.05	112.65	95.25
40/80	3.900	4.100	4.260	4.575	4.835	4.150	99.06	104.14	108.20	116.21	122.81	105.41
43/86	4.200	4.400	4.560	4.875	5.135	4.450	106.68	111.76	115.82	123.83	130.43	113.03
44/88	4.300	4.500	4.660	4.975	5.235	4.550	109.22	114.30	118.36	126.37	132.97	115.57
50/100	4.900	5.100	5.260	5.575	5.835	5.150	124.46	129.54	133.60	141.61	148.21	130.81
55/110	5.400	5.600	5.760	6.075	6.335	5.650	137.16	142.24	146.30	154.31	160.91	143.51
60/120	5.900	6.100	6.260	6.575	6.835	6.150	149.86	154.94	159.00	167.01	173.61	156.21
61/122	6.000	6.200	6.360	6.675	6.935	6.250	152.40	157.48	161.54	169.55	176.15	158.75
65/130	6.400	6.600	6.760	7.075	7.335	6.650	162.56	167.64	171.70	179.71	186.31	168.91
70/140	6.900	7.100	7.260	7.575	7.835	7.150	175.26	180.34	184.40	192.41	199.01	181.61

SULLINS

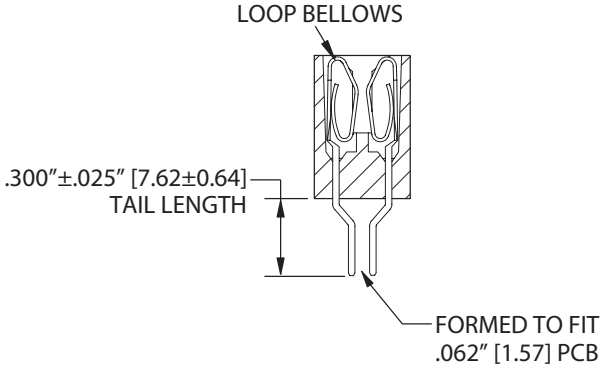
.100" [2.54 mm] Contact Centers, .550" [13.97 mm] Insulator Height, .025" [0.64 mm] Square Card Extender

SPECIFICATIONS

- Accommodates .062" ± .008" [1.57 mm ± 0.20 mm] PC Board
- Insulator Material available in PBT, PPS, or PA9T
- 3 Amps current rating for one contact energized
- Insulator / Contact Specifications and Part Number Options See opposite page
- P/N 04-0004-000 for In Between Contact Polarizing Key See Page 186 (Sold Separately)
- Molded-in Key Available - Consult Factory

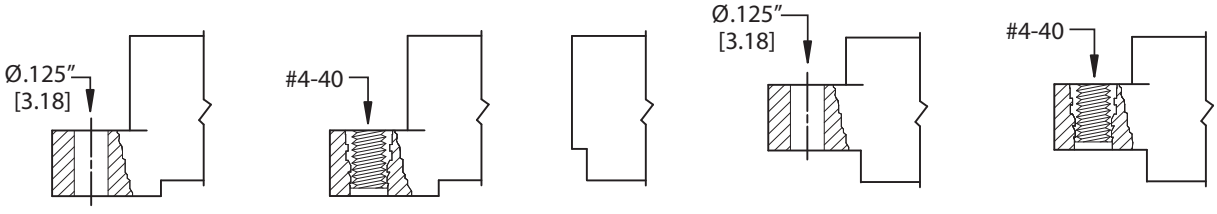


TERMINATION TYPE



Example P/N: MPSL-0100-10-DWE-4KTT

MOUNTING STYLE



(STYLE 1) **(STYLE 2)** **(STYLE 4)** **(STYLE 5)** **(STYLE 6)**

www.sullinscorp.com | 760-744-0125 | toll-free 888-774-3100 | fax 760-744-6081 | info@sullinscorp.com

.100" [2.54 mm] Contact Centers, .550" [13.97 mm] Insulator Height, .025" [0.64 mm] Square Card Extender

PART NUMBER OPTIONS

MPSL - 0 100 - 10 - D WE - 4 K TT

PLATING - RoHS Compliant
All Platings are Lead Free & have .000050" Nickel Underplate

	Contact Surface	Termination
*MPSL =	.000010" Gold	.000100" Pure Tin, Matte
*MPL =	.000100" Overall Pure Tin, Matte	
MP =	.000010" Overall Gold	

***Requires 'K' Modification Code**
Refer to Page 142 for Operating/Processing Temperatures

INSULATOR MATERIAL* *
0 = PBT

CONTACT CENTERS
100 = .100" [2.54 mm]

NUMBER OF POSITIONS
Contacts Per Row (See Position Chart Below)

READOUT
D = Dual

MODIFICATION CODE**
TT = No Standoffs

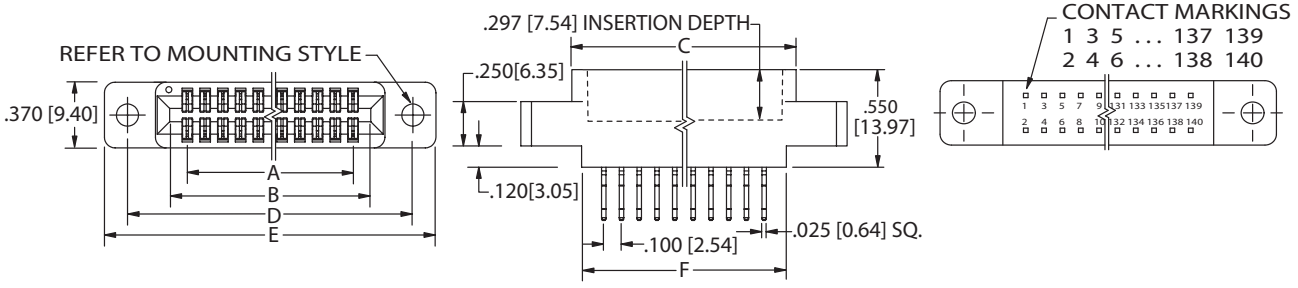
PLATING MODIFICATION CODE**
K = Required on MPSL or MPL Plating
Omit for MP Plating (Overall Gold)

MOUNTING STYLE (See Opposite Page)
1 = .125" [3.18 mm] Clearance Hole
2 = #4-40 Threaded Insert
4 = No Mounting
5 = Raised, .125" [3.18 mm] Clearance Hole
6 = Raised, #4-40 Threaded Insert

TERMINATION TYPE (See Opposite Page)
WE = Card Extender

** See Pages 142-143 for Specifications and other Variations

DIMENSIONS Dimensions in [ ] are in millimeters, all others are in inches.



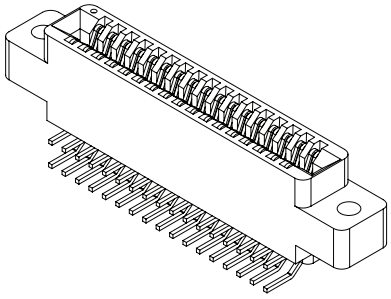
POSITIONS/ CONTACTS	INCHES						MILLIMETERS					
	A±.008	B±.008	C±.015	D±.010	E±.020	F±.015	A±0.20	B±0.20	C±0.38	D±0.25	E±0.51	F±0.38
06/12	0.500	0.700	0.860	1.175	1.435	0.750	12.70	17.78	21.84	29.85	36.45	19.05
08/16	0.700	0.900	1.060	1.375	1.635	0.950	17.78	22.86	26.92	34.93	41.53	24.13
10/20	0.900	1.100	1.260	1.575	1.835	1.150	22.86	27.94	32.00	40.01	46.61	29.21
12/24	1.100	1.300	1.460	1.775	2.035	1.350	27.94	33.02	37.08	45.09	51.69	34.29
13/26	1.200	1.400	1.560	1.875	2.135	1.450	30.48	35.56	39.62	47.63	54.23	36.83
15/30	1.400	1.600	1.760	2.075	2.335	1.650	35.56	40.64	44.70	52.71	59.31	41.91
17/34	1.600	1.800	1.960	2.275	2.535	1.850	40.64	45.72	49.78	57.79	64.39	46.99
18/36	1.700	1.900	2.060	2.375	2.635	1.950	43.18	48.26	52.32	60.33	66.93	49.53
20/40	1.900	2.100	2.260	2.575	2.835	2.150	48.26	53.34	57.40	65.41	72.01	54.61
22/44	2.100	2.300	2.460	2.775	3.035	2.350	53.34	58.42	62.48	70.49	77.09	59.69
24/48	2.300	2.500	2.660	2.975	3.235	2.550	58.42	63.50	67.56	75.57	82.17	64.77
25/50	2.400	2.600	2.760	3.075	3.335	2.650	60.96	66.04	70.10	78.11	84.71	67.31
28/56	2.700	2.900	3.060	3.375	3.635	2.950	68.58	73.66	77.72	85.73	92.33	74.93
30/60	2.900	3.100	3.260	3.575	3.835	3.150	73.66	78.74	82.80	90.81	97.41	80.01
31/62	3.000	3.200	3.360	3.675	3.935	3.250	76.20	81.28	85.34	93.35	99.95	82.55
35/70	3.400	3.600	3.760	4.075	4.335	3.650	86.36	91.44	95.50	103.51	110.11	92.71
36/72	3.500	3.700	3.860	4.175	4.435	3.750	88.90	93.98	98.04	106.05	112.65	95.25
40/80	3.900	4.100	4.260	4.575	4.835	4.150	99.06	104.14	108.20	116.21	122.81	105.41
43/86	4.200	4.400	4.560	4.875	5.135	4.450	106.68	111.76	115.82	123.83	130.43	113.03
44/88	4.300	4.500	4.660	4.975	5.235	4.550	109.22	114.30	118.36	126.37	132.97	115.57
50/100	4.900	5.100	5.260	5.575	5.835	5.150	124.46	129.54	133.60	141.61	148.21	130.81
55/110	5.400	5.600	5.760	6.075	6.335	5.650	137.16	142.24	146.30	154.31	160.91	143.51
60/120	5.900	6.100	6.260	6.575	6.835	6.150	149.86	154.94	159.00	167.01	173.61	156.21
61/122	6.000	6.200	6.360	6.675	6.935	6.250	152.40	157.48	161.54	169.55	176.15	158.75
65/130	6.400	6.600	6.760	7.075	7.335	6.650	162.56	167.64	171.70	179.71	186.31	168.91
70/140	6.900	7.100	7.260	7.575	7.835	7.150	175.26	180.34	184.40	192.41	199.01	181.61

SULLINS

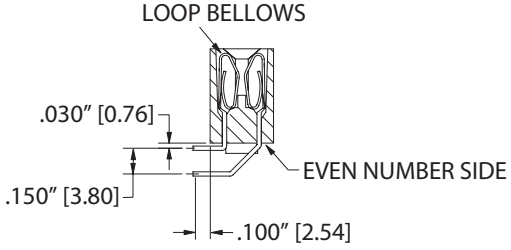
.100"[2.54 mm] Contact Centers, .610" [15.49 mm] Insulator Height, Right Angle

SPECIFICATIONS

- Accommodates .062" ± .008" [1.57 mm ± 0.20 mm] PC Board
- Insulator Material available in PBT, PPS, or PA9T
- 3 Amps current rating for one contact energized
- Insulator / Contact Specifications and Part Number Options See opposite page
- P/N 04-0004-000 for In Between Contact Polarizing Key See Page 186 (Sold Separately)
- Molded-in Key Available - Consult Factory

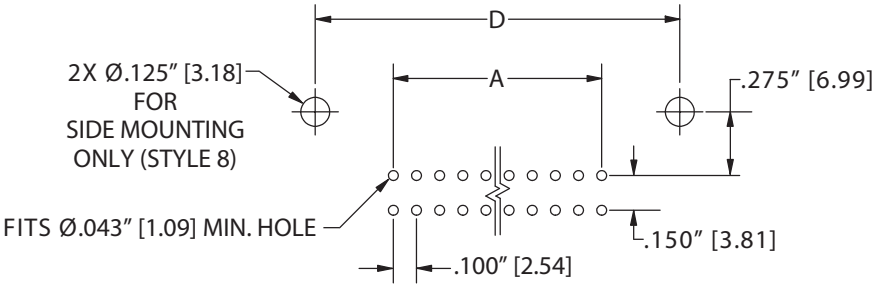


TERMINATION TYPE

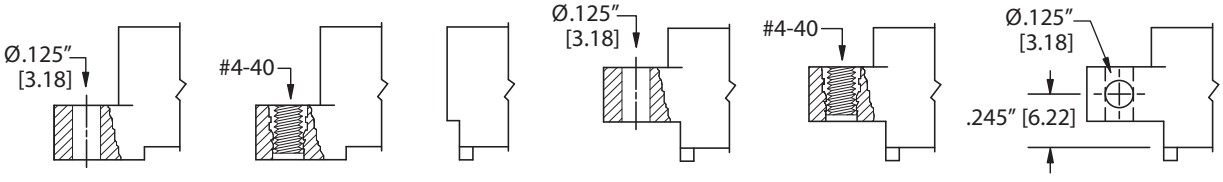


Example P/N: MP-0100-10-DW-1R

PCB LAYOUT



MOUNTING STYLE



(STYLE 1) **(STYLE 2)** **(STYLE 4)** **(STYLE 5)** **(STYLE 6)** **(STYLE 8)**

.100" [2.54 mm] Contact Centers, .610" [15.49 mm] Insulator Height, Right Angle

PART NUMBER OPTIONS

MPSL - 0 100 - 10 - D W - 1 K R

PLATING - RoHS Compliant
All Platings are Lead Free and have .000050" Nickel Underplate

	Contact Surface	Termination
*MPSL =	.000010" Gold	.000100" Pure Tin, Matte
*MPL =	.000100" Overall Pure Tin, Matte	
MP =	.000010" Overall Gold	

***Requires 'K' Modification Code**
Refer to Page 142 for Operating/Processing Temperatures

INSULATOR MATERIAL* *
0 = PBT

CONTACT CENTERS
100 = .100" [2.54 mm]

NUMBER OF POSITIONS
Contacts Per Row (See Position Chart Below)

READOUT
D = Dual

MODIFICATION CODE**
R = Right Angle

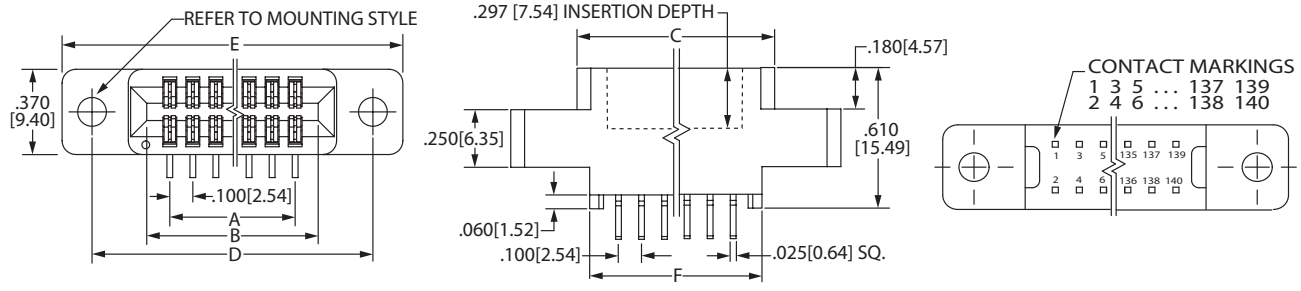
PLATING MODIFICATION CODE**
K = Required on MPSL or MPL Plating
Omit for MP Plating (Overall Gold)

MOUNTING STYLE (See Opposite Page)
1 = .125" [3.18 mm] Clearance Hole
2 = #4-40 Threaded Insert
4 = No Mounting
5 = Raised, .125" [3.18 mm] Clearance Hole
6 = Raised, #4-40 Threaded Insert
8 = Raised, Side Mounting, .125" [3.18 mm] Clearance Hole

TERMINATION TYPE (See Opposite Page)
LOOP BELLOWS
W = .025" [0.64 mm] Square

** See Pages 142-143 for Specifications and other Variations

DIMENSIONS Dimensions in [ ] are in millimeters, all others are in inches.



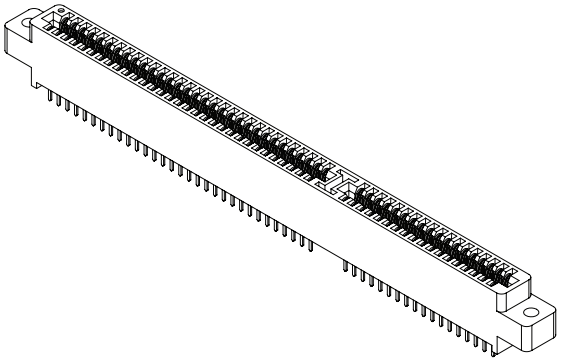
POSITIONS/ CONTACTS	INCHES						MILLIMETERS					
	A±.008	B±.008	C±.015	D±.010	E±.020	F±.015	A±0.20	B±0.20	C±0.38	D±0.25	E±0.51	F±0.38
06/12	0.500	0.700	0.860	1.175	1.435	0.750	12.70	17.78	21.84	29.85	36.45	19.05
08/16	0.700	0.900	1.060	1.375	1.635	0.950	17.78	22.86	26.92	34.93	41.53	24.13
10/20	0.900	1.100	1.260	1.575	1.835	1.150	22.86	27.94	32.00	40.01	46.61	29.21
12/24	1.100	1.300	1.460	1.775	2.035	1.350	27.94	33.02	37.08	45.09	51.69	34.29
13/26	1.200	1.400	1.560	1.875	2.135	1.450	30.48	35.56	39.62	47.63	54.23	36.83
15/30	1.400	1.600	1.760	2.075	2.335	1.650	35.56	40.64	44.70	52.71	59.31	41.91
17/34	1.600	1.800	1.960	2.275	2.535	1.850	40.64	45.72	49.78	57.79	64.39	46.99
18/36	1.700	1.900	2.060	2.375	2.635	1.950	43.18	48.26	52.32	60.33	66.93	49.53
20/40	1.900	2.100	2.260	2.575	2.835	2.150	48.26	53.34	57.40	65.41	72.01	54.61
22/44	2.100	2.300	2.460	2.775	3.035	2.350	53.34	58.42	62.48	70.49	77.09	59.69
24/48	2.300	2.500	2.660	2.975	3.235	2.550	58.42	63.50	67.56	75.57	82.17	64.77
25/50	2.400	2.600	2.760	3.075	3.335	2.650	60.96	66.04	70.10	78.11	84.71	67.31
28/56	2.700	2.900	3.060	3.375	3.635	2.950	68.58	73.66	77.72	85.73	92.33	74.93
30/60	2.900	3.100	3.260	3.575	3.835	3.150	73.66	78.74	82.80	90.81	97.41	80.01
31/62	3.000	3.200	3.360	3.675	3.935	3.250	76.20	81.28	85.34	93.35	99.95	82.55
35/70	3.400	3.600	3.760	4.075	4.335	3.650	86.36	91.44	95.50	103.51	110.11	92.71
36/72	3.500	3.700	3.860	4.175	4.435	3.750	88.90	93.98	98.04	106.05	112.65	95.25
40/80	3.900	4.100	4.260	4.575	4.835	4.150	99.06	104.14	108.20	116.21	122.81	105.41
43/86	4.200	4.400	4.560	4.875	5.135	4.450	106.68	111.76	115.82	123.83	130.43	113.03
44/88	4.300	4.500	4.660	4.975	5.235	4.550	109.22	114.30	118.36	126.37	132.97	115.57
50/100	4.900	5.100	5.260	5.575	5.835	5.150	124.46	129.54	133.60	141.61	148.21	130.81
55/110	5.400	5.600	5.760	6.075	6.335	5.650	137.16	142.24	146.30	154.31	160.91	143.51
60/120	5.900	6.100	6.260	6.575	6.835	6.150	149.86	154.94	159.00	167.01	173.61	156.21
61/122	6.000	6.200	6.360	6.675	6.935	6.250	152.40	157.48	161.54	169.55	176.15	158.75
65/130	6.400	6.600	6.760	7.075	7.335	6.650	162.56	167.64	171.70	179.71	186.31	168.91
70/140	6.900	7.100	7.260	7.575	7.835	7.150	175.26	180.34	184.40	192.41	199.01	181.61

SULLINS

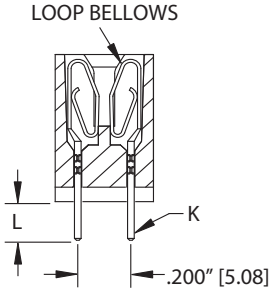
.100" [2.54 mm] Contact Centers, .610" [15.49 mm] Insulator Height, Special 18/31 with Barrier, Dip Solder/Wire Wrap, [ISA]

SPECIFICATIONS

- ISA Connector
- Accommodates .062" ± .008" [1.57 mm ± 0.20 mm] PC Board
- Insulator Material available in PBT, PPS, or PA9T
- 3 Amps current rating for one contact energized
- Insulator / Contact Specifications and Part Number Options See opposite page
- P/N 04-0004-000 for In Between Contact Polarizing Key See Page 186 (Sold Separately)
- Molded-in Key Available - Consult Factory

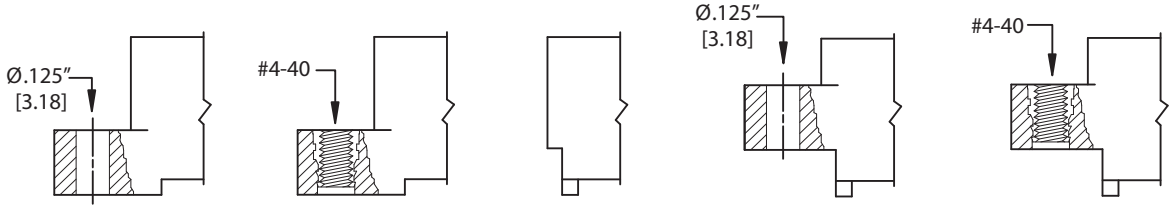


TERMINATION TYPE



TERMINATION CODE	MODIFICATION CODE	TYPE	POST CROSS SECTION K	POST LENGTH L	FITS MIN. HOLE SIZE	EXAMPLE PART NUMBER
R	H	Dip Solder	.025" [0.64] Round	.190" [4.83]	.033" [0.84]	***MPSL-0100-18/31-DR-1HK***
R	H(.165)	Dip Solder	.025" [0.64] Round	.165" [4.19]	.033" [0.84]	***MPSL-0100-18/31-DR-1HK(.165)***
W	H	Dip Solder	.025" [0.64] Square	.190" [4.83]	.040" [1.02]	***MPSL-0100-18/31-DW-1HK***
W	OMIT	Wire Wrap	.025" [0.64] Square	.560" [14.20]	.040" [1.02]	***MPSL-0100-18/31-DW-1K***

MOUNTING STYLE



(STYLE 1) **(STYLE 2)** **(STYLE 4)** **(STYLE 5)** **(STYLE 6)**

.100" [2.54 mm] Contact Centers, .610" [15.49 mm] Insulator Height, Special 18/31 with Barrier, Dip Solder/Wire Wrap, [ISA]

PART NUMBER OPTIONS

MPSL - 0 100 - 18/31 - D W - 1 H K

PLATING - RoHS Compliant
All Platings are Lead Free and have .000050" Nickel Underplate

	Contact Surface	Termination
*MPSL =	.000010" Gold	.000100" Pure Tin, Matte
*MPL =	.000100" Overall Pure Tin, Matte	
MP =	.000010" Overall Gold	

***Requires 'K' Modification Code**
Refer to Page 142 for Operating/Processing Temperatures

INSULATOR MATERIAL* *
0 = PBT

CONTACT CENTERS
100 = .100" [2.54 mm]

NUMBER OF POSITIONS
18/31 Per Row

READOUT
D = Dual

PLATING MODIFICATION CODE**
K = Required on MPSL or MPL Plating
Omit for MP Plating (Overall Gold)

MODIFICATION CODE**
(See Opposite Page)
H = Dip Solder .190" [4.83 mm] Tail Length (.025" [0.64 mm] Round) or (.025" [0.64 mm] Square)
H(.165) = Dip Solder .165" [4.19 mm] Tail Length (.025" [0.64 mm] Round Only)

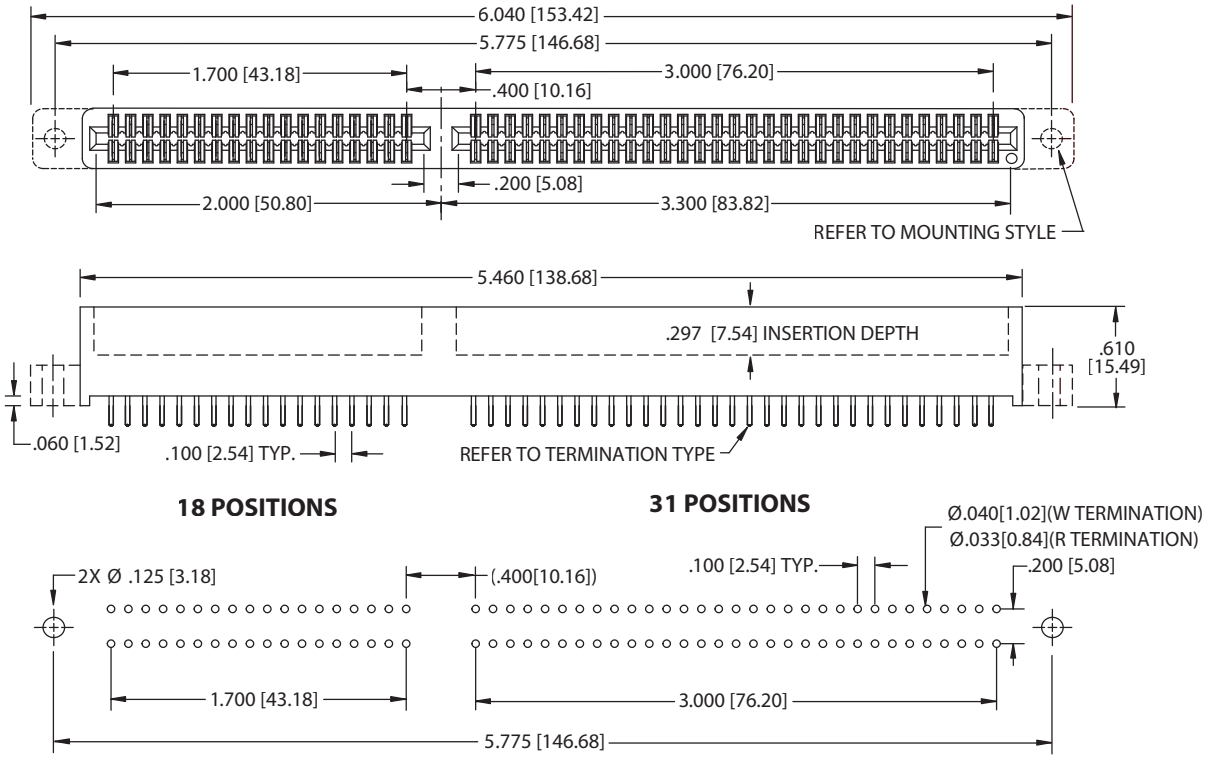
MOUNTING STYLE (See Opposite Page)
1 = .125" [3.18 mm] Clearance Hole
2 = #4-40 Threaded Insert
4 = No Mounting
5 = Raised, .125" [3.18 mm] Clearance Hole
6 = Raised, #4-40 Threaded Insert

TERMINATION TYPE (See Opposite Page)
LOOP BELLOWS
R = .025" [0.64 mm] Round
W = .025" [0.64 mm] Square

CONSULT FACTORY FOR RIGHT ANGLE VERSION

** See Pages 142-143 for Specifications and other Variations

DIMENSIONS Dimensions in [ ] are in millimeters, all others are in inches.

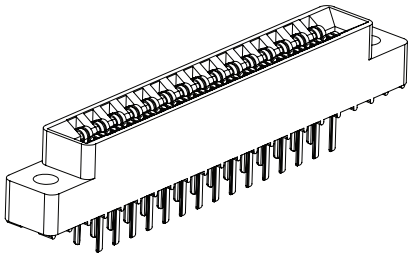


RECOMMENDED PCB LAYOUT

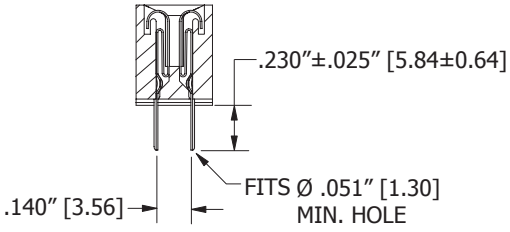
.125" [3.18 mm] Contact Centers, .431" [10.95 mm] Insulator Height, Dip Solder

SPECIFICATIONS

- Accommodates .062" ± .008" [1.57 mm ± 0.20 mm] PC Board
- Insulator Material available in PBT, PPS, or PA9T
- 3 Amps current rating for one contact energized
- Insulator / Contact Specifications and Part Number Options See opposite page
- Row Spacing Available in .140" [3.56 mm] or .250" [6.35 mm] (Use Modification Code 'X9' for .250" [6.35 mm])
- P/N 04-0003-000 for In Between Contact Polarizing Key See Page 186 (Sold Separately)
- Molded-in Key Available - Consult Factory

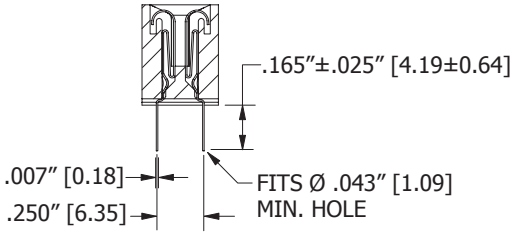


TERMINATION TYPE



DIP SOLDER (S)
.140" [3.56] ROW SPACING

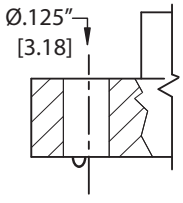
Example P/N: MPSL-0125-10-DS-1K



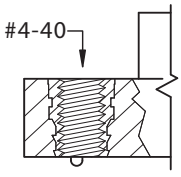
DIP SOLDER (S)
.250" [6.35] ROW SPACING
REQUIRES 'X9' MODIFICATION CODE

Example P/N: MPSL-0125-10-DS-1KX9

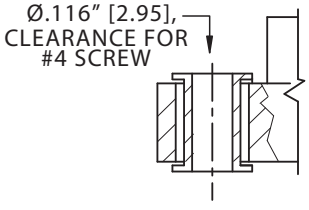
MOUNTING STYLE



(STYLE 1)



(STYLE 2)



(STYLE 3)

(STYLE 4)

.125" [3.18 mm] Contact Centers, .431" [10.95 mm] Insulator Height, Dip Solder

PART NUMBER OPTIONS

MPL - 0 125 - 10 - D S - 1 K

PLATING - RoHS Compliant
All Platings are Lead Free and have .000050" Nickel Underplate

	Contact Surface	Termination
*MPSL =	.000010" Gold	.000100" Pure Tin, Matte
*MPL =	.000100" Overall Pure Tin, Matte	
MP =	.000010" Overall Gold	

***Requires 'K' Modification Code**
Refer to Page 142 for Operating/Processing Temperatures

INSULATOR MATERIAL**
0 = PBT

CONTACT CENTERS
125 = .125" [3.18 mm]

NUMBER OF POSITIONS
Contacts Per Row (See Position Chart Below)

MODIFICATION CODE**
K = Required on MPSL or MPL Plating
Omit for MP Plating (Overall Gold)
X9 = .250" [6.35 mm] Row Spacing

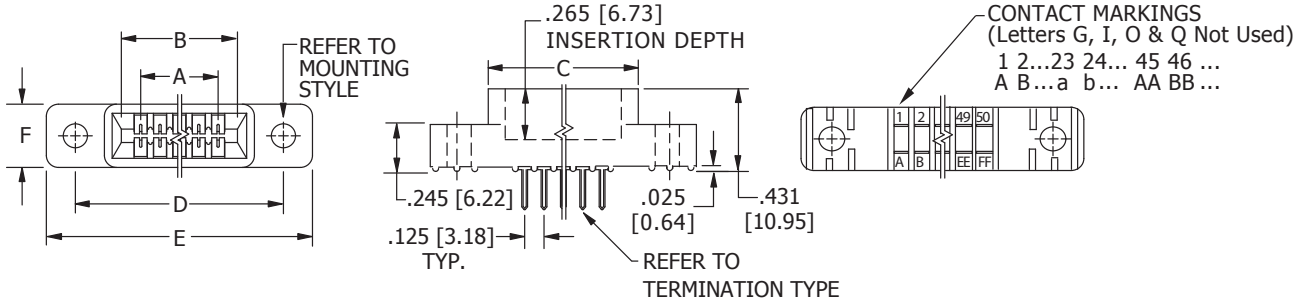
MOUNTING STYLE (See Opposite Page)
1 = .125" [3.18 mm] Clearance Hole
2 = #4-40 Threaded Insert
3 = Floating Bobbin
4 = No Mounting

TERMINATION TYPE (See Opposite Page)
S = Dip Solder

READOUT
D = Dual

** See Pages 142-143 for Specifications and other Variations

DIMENSIONS Dimensions in [ ] are in millimeters, all others are in inches.



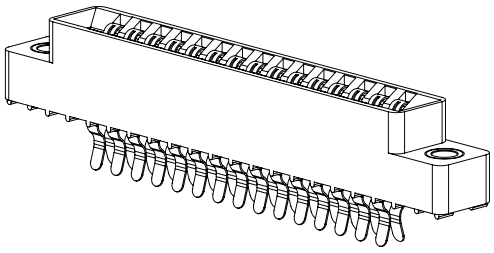
POSITIONS/ CONTACTS	INCHES						MILLIMETERS					
	A±.008	B±.008	C±.015	D±.010	E±.020	F+.005/-.015	A±0.20	B±0.20	C±0.38	D±0.25	E±0.51	F+0.13/-0.38
06/12	0.625	0.875	1.035	1.295	1.575	0.330	15.88	22.23	26.29	32.89	40.01	8.38
10/20	1.125	1.375	1.535	1.795	2.075		28.58	34.93	38.99	45.59	52.71	
14/28	1.625	1.875	2.035	2.295	2.575		41.28	47.63	51.69	58.29	65.41	
15/30	1.750	2.000	2.160	2.420	2.700		44.45	50.80	54.86	61.47	68.58	
18/36	2.125	2.375	2.535	2.795	3.075		53.98	60.33	64.39	70.99	78.11	
22/44	2.625	2.875	3.035	3.295	3.575		66.68	73.03	77.09	83.69	90.81	
28/56	3.375	3.625	3.785	4.045	4.325		85.73	92.08	96.14	102.74	109.86	
30/60	3.625	3.875	4.035	4.295	4.575		92.08	98.43	102.49	109.09	116.21	
31/62	3.750	4.000	4.160	4.420	4.700		95.25	101.60	105.66	112.27	119.38	
35/70	4.250	4.500	4.660	4.920	5.200		107.95	114.30	118.36	124.97	132.08	
36/72	4.375	4.625	4.785	5.045	5.325		111.13	117.48	121.54	128.14	135.26	
37/74	4.500	4.750	4.910	5.170	5.450		114.30	120.65	124.71	131.32	138.43	
40/80	4.875	5.125	5.285	5.545	5.825	0.370	123.83	130.18	134.24	140.84	147.96	9.40
43/86	5.250	5.500	5.660	5.920	6.200		133.35	139.70	143.76	150.37	157.48	
44/88	5.375	5.625	5.785	6.045	6.325		136.53	142.88	146.94	153.54	160.66	
49/98	6.000	6.250	6.410	6.670	6.950		152.40	158.75	162.81	169.42	176.53	
50/100	6.125	6.375	6.535	6.795	7.075		155.58	161.93	165.99	172.59	179.71	

SULLINS

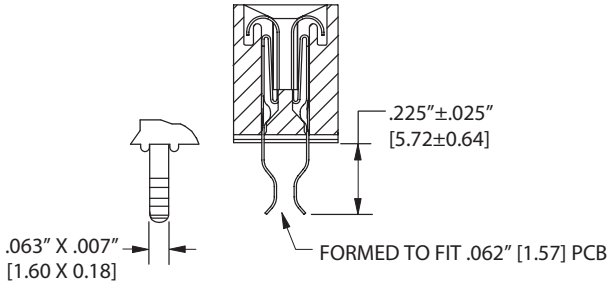
.125" [3.18 mm] Contact Centers, .431" [10.95 mm] Insulator Height, Card Extender

SPECIFICATIONS

- Accommodates .062" ± .008" [1.57 mm ± 0.20 mm] PC Board
- Insulator Material available in PBT, PPS, or PA9T
- 3 Amps current rating for one contact energized
- Insulator / Contact Specifications and Part Number Options See opposite page
- P/N 04-0003-000 for In Between Contact Polarizing Key See Page 186 (Sold Separately)
- Molded-in Key Available - Consult Factory



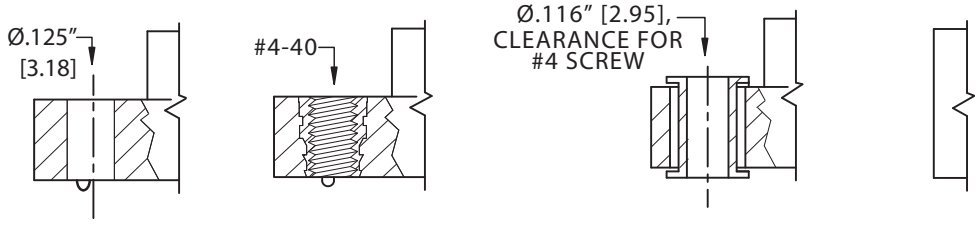
TERMINATION TYPE



CARD EXTENDER (SE)

Example P/N:
MPSL-0125-10-DSE-1K

MOUNTING STYLE



(STYLE 1) **(STYLE 2)** **(STYLE 3)** **(STYLE 4)**

.125" [3.18 mm] Contact Centers, .431" [10.95 mm] Insulator Height, Card Extender

PART NUMBER OPTIONS

MPSL - 0 125 - 10 - D SE - 1 K

PLATING - RoHS Compliant
All Platings are Lead Free and have .000050" Nickel Underplate

	Contact Surface	Termination
*MPSL =	.000010" Gold	.000100" Pure Tin Matte
*MPL =	.000100" Overall Pure Tin, Matte	
MP =	.000010" Overall Gold	

*** Requires 'K' Modification Code**
Other Plating and thicknesses available upon request
Refer to Page 142 for Operating/Processing Temperatures

INSULATOR MATERIAL**
0 = PBT

CONTACT CENTERS
125 = .125" [3.18 mm]

NUMBER OF POSITIONS
Contacts Per Row (See Position Chart Below)

PLATING MODIFICATION CODE**
K = Required on MPSL or MPL Plating
Omit for MP Plating (Overall Gold)

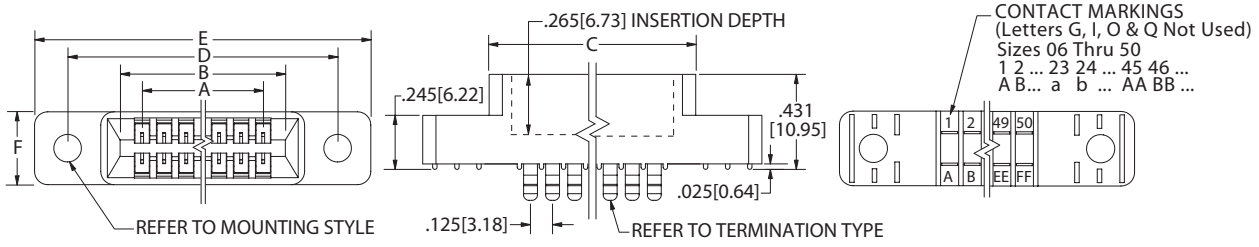
MOUNTING STYLE (See Opposite Page)
1 = .125" [3.18 mm] Clearance Hole
2 = #4-40 Threaded Insert
3 = Floating Bobbin
4 = No Mounting

TERMINATION TYPE (See Opposite Page)
SE = Card Extender

READOUT
D = Dual

**See Pages 142-143 for Specifications and other Variations

DIMENSIONS Dimensions in [ ] are in millimeters, all others are in inches.

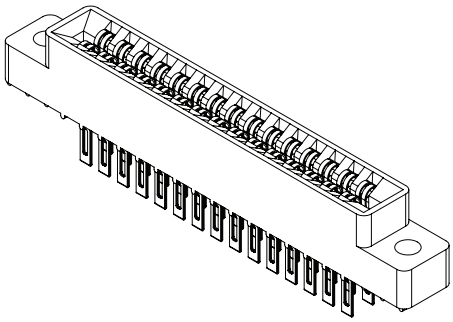


POSITIONS/ CONTACTS	INCHES						MILLIMETERS					
	A±.008	B±.008	C±.015	D±.010	E±.020	F+.005/-.015	A±0.20	B±0.20	C±0.38	D±0.25	E±0.51	F+0.13/-0.38
06/12	0.625	0.875	1.035	1.295	1.575	0.330	15.88	22.23	26.29	32.89	40.01	8.38
10/20	1.125	1.375	1.535	1.795	2.075		28.58	34.93	38.99	45.59	52.71	
14/28	1.625	1.875	2.035	2.295	2.575		41.28	47.63	51.69	58.29	65.41	
15/30	1.750	2.000	2.160	2.420	2.700		44.45	50.80	54.86	61.47	68.58	
18/36	2.125	2.375	2.535	2.795	3.075		53.98	60.33	64.39	70.99	78.11	
22/44	2.625	2.875	3.035	3.295	3.575		66.68	73.03	77.09	83.69	90.81	
28/56	3.375	3.625	3.785	4.045	4.325		85.73	92.08	96.14	102.74	109.86	
30/60	3.625	3.875	4.035	4.295	4.575		92.08	98.43	102.49	109.09	116.21	
31/62	3.750	4.000	4.160	4.420	4.700		95.25	101.60	105.66	112.27	119.38	
35/70	4.250	4.500	4.660	4.920	5.200		107.95	114.30	118.36	124.97	132.08	
36/72	4.375	4.625	4.785	5.045	5.325		111.13	117.48	121.54	128.14	135.26	
37/74	4.500	4.750	4.910	5.170	5.450		114.30	120.65	124.71	131.32	138.43	
40/80	4.875	5.125	5.285	5.545	5.825	0.370	123.83	130.18	134.24	140.84	147.96	9.40
43/86	5.250	5.500	5.660	5.920	6.200		133.35	139.70	143.76	150.37	157.48	
44/88	5.375	5.625	5.785	6.045	6.325		136.53	142.88	146.94	153.54	160.66	
49/98	6.000	6.250	6.410	6.670	6.950		152.40	158.75	162.81	169.42	176.53	
50/100	6.125	6.375	6.535	6.795	7.075		155.58	161.93	165.99	172.59	179.71	

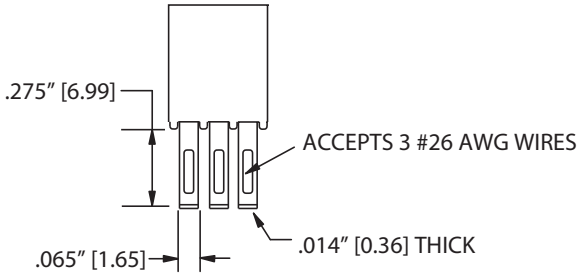
.125" [3.18 mm] Contact Centers, .431" [10.95 mm] Insulator Height, Eyelet

SPECIFICATIONS

- Accommodates .062" ± .008" [1.57 mm ± 0.20 mm] PC Board
- Insulator Material available in PBT, PPS, or PA9T
- 3 Amps current rating for one contact energized
- Insulator / Contact Specifications and Part Number Options See opposite page
- P/N 04-0003-000 for In Between Contact Polarizing Key See Page 186 (Sold Separately)
- Molded-in Key Available - Consult Factory



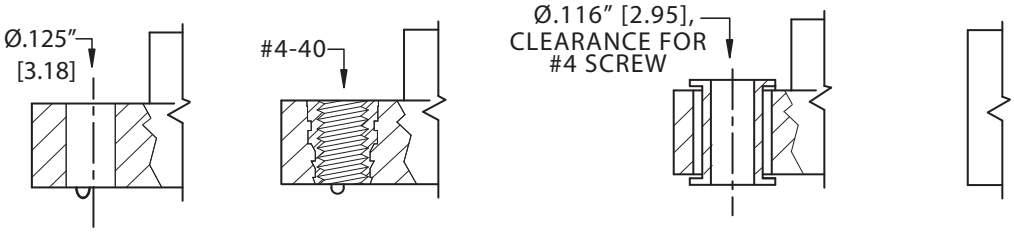
TERMINATION TYPE



EYELET (P)

Example P/N:
MP-0125-10-DP-1

MOUNTING STYLE



(STYLE 1) **(STYLE 2)** **(STYLE 3)** **(STYLE 4)**

.125" [3.18 mm] Contact Centers, .431" [10.95 mm] Insulator Height, Eyelet

PART NUMBER OPTIONS

MPL - 0 125 - 10 - D P - 1 K

PLATING - RoHS Compliant
All Platings are Lead Free and have .000050" Nickel Underplate
*MPL = .000100" Overall Pure Tin, Matte
MP = .000010" Overall Gold
*** Requires 'K' Modification Code**
Other Plating and thicknesses available upon request
Refer to Page 142 for Operating/Processing Temperatures

INSULATOR MATERIAL**
0 = PBT

CONTACT CENTERS
125 = .125" [3.18 mm]

NUMBER OF POSITIONS
Contacts Per Row (See Position Chart Below)

PLATING MODIFICATION CODE**
K = Required on Tin Plating
Omit for MP Plating (Overall Gold)

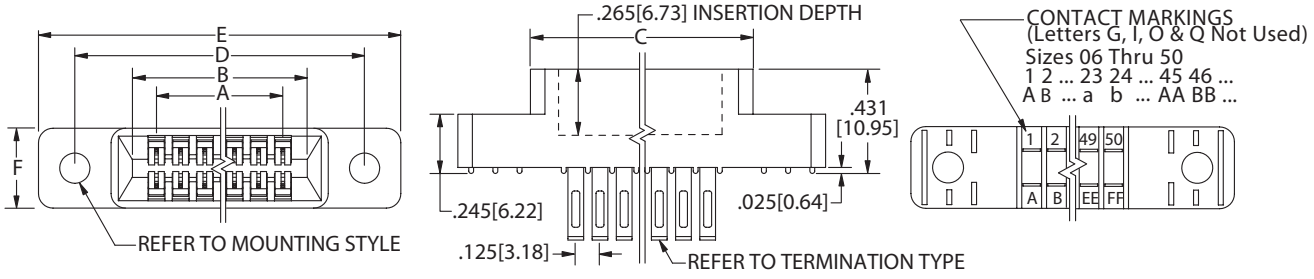
MOUNTING STYLE (See Opposite Page)
1 = .125" [3.18 mm] Clearance Hole
2 = #4-40 Threaded Insert
3 = Floating Bobbin
4 = No Mounting

TERMINATION TYPE (See Opposite Page)
P = Pierced Eyelet, .014" [0.36 mm] Thick

READOUT
D = Dual

** See Pages 142-143 for Specifications and other Variations

DIMENSIONS Dimensions in [ ] are in millimeters, all others are in inches.



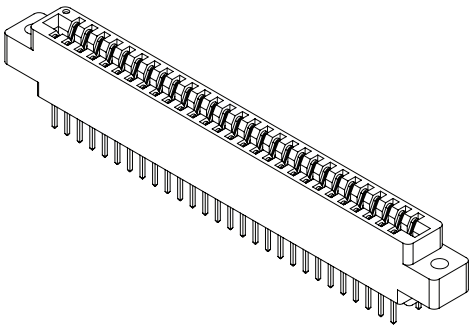
POSITIONS/ CONTACTS	INCHES						MILLIMETERS					
	A±.008	B±.008	C±.015	D±.010	E±.020	F+.005/-.015	A±0.20	B±0.20	C±0.38	D±0.25	E±0.51	F+0.13/-0.38
06/12	0.625	0.875	1.035	1.295	1.575	0.330	15.88	22.23	26.29	32.89	40.01	8.38
10/20	1.125	1.375	1.535	1.795	2.075		28.58	34.93	38.99	45.59	52.71	
14/28	1.625	1.875	2.035	2.295	2.575		41.28	47.63	51.69	58.29	65.41	
15/30	1.750	2.000	2.160	2.420	2.700		44.45	50.80	54.86	61.47	68.58	
18/36	2.125	2.375	2.535	2.795	3.075		53.98	60.33	64.39	70.99	78.11	
22/44	2.625	2.875	3.035	3.295	3.575		66.68	73.03	77.09	83.69	90.81	
28/56	3.375	3.625	3.785	4.045	4.325		85.73	92.08	96.14	102.74	109.86	
30/60	3.625	3.875	4.035	4.295	4.575		92.08	98.43	102.49	109.09	116.21	
31/62	3.750	4.000	4.160	4.420	4.700		95.25	101.60	105.66	112.27	119.38	
35/70	4.250	4.500	4.660	4.920	5.200		107.95	114.30	118.36	124.97	132.08	
36/72	4.375	4.625	4.785	5.045	5.325		111.13	117.48	121.54	128.14	135.26	
37/74	4.500	4.750	4.910	5.170	5.450		114.30	120.65	124.71	131.32	138.43	
40/80	4.875	5.125	5.285	5.545	5.825	0.370	123.83	130.18	134.24	140.84	147.96	9.40
43/86	5.250	5.500	5.660	5.920	6.200		133.35	139.70	143.76	150.37	157.48	
44/88	5.375	5.625	5.785	6.045	6.325		136.53	142.88	146.94	153.54	160.66	
49/98	6.000	6.250	6.410	6.670	6.950		152.40	158.75	162.81	169.42	176.53	
50/100	6.125	6.375	6.535	6.795	7.075		155.58	161.93	165.99	172.59	179.71	

SULLINS

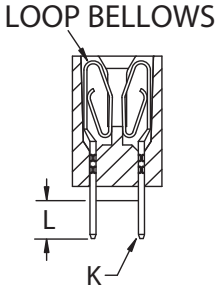
.125"[3.18 mm] Contact Centers, .610"[15.49 mm] Insulator Height, Wire Wrap & Dip Solder

SPECIFICATIONS

- Accommodates .062" ± .008" [1.57 mm ± 0.20 mm] PC Board
- Insulator Material available in PBT, PPS, or PA9T
- 3 Amps current rating for one contact energized
- Insulator / Contact Specifications and Part Number Options See opposite page
- P/N 04-0004-000 for In Between Contact Polarizing Key See Page 186 (Sold Separately)
- Molded-in Key Available - Consult Factory

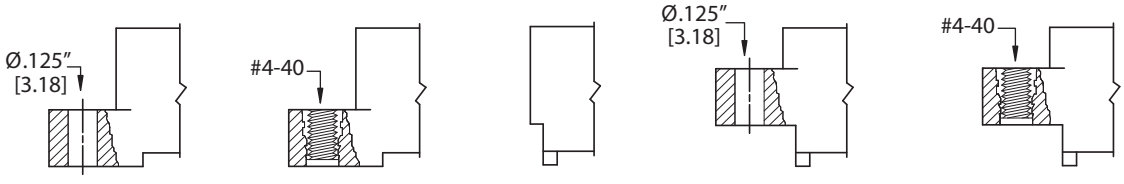


TERMINATION TYPE



TERMINATION CODE	MODIFICATION CODE	TYPE	POST CROSS SECTION K	POST LENGTH L	FITS MIN. HOLE SIZE	EXAMPLE PART NUMBER
R	H	Dip Solder	.025" [0.64] Round	.190" [4.83]	.033" [0.84]	***MPSL-0125-10-DR-1HK***
R	H(.165)	Dip Solder	.025" [0.64] Round	.165" [4.19]	.033" [0.84]	***MPSL-0125-10-DR-1HK(.165)***
W	H	Dip Solder	.025" [0.64] Square	.190" [4.83]	.040" [1.02]	***MPSL-0125-10-DW-1HK***
W	OMIT	Wire Wrap	.025" [0.64] Square	.560" [14.20]	.040" [1.02]	***MPSL-0125-10-DW-1K***

MOUNTING STYLE



(STYLE 1) **(STYLE 2)** **(STYLE 4)** **(STYLE 5)** **(STYLE 6)**

.125" [3.18 mm] Contact Centers, .610" [15.49 mm] Insulator Height, Wire Wrap & Dip Solder

PART NUMBER OPTIONS

MPSL - 0 125 - 10 - D W - 1 H K

PLATING - RoHS Compliant
All Platings are Lead Free and have .000050" Nickel Underplate

	Contact Surface	Termination
*MPSL =	.000010" Gold	.000100" Pure Tin, Matte
*MPL =	.000100" Overall Pure Tin, Matte	
MP =	.000010" Overall Gold	

***Requires 'K' Modification Code**
Refer to Page 142 for Operating/Processing Temperatures

INSULATOR MATERIAL**
0 = PBT

CONTACT CENTERS
125 = .125" [3.18 mm]

NUMBER OF POSITIONS
Contacts Per Row (See Position Chart Below)

READOUT
D = Dual

PLATING MODIFICATION CODE**
K = Required on MPSL or MPL Plating
Omit for MP Plating (Overall Gold)

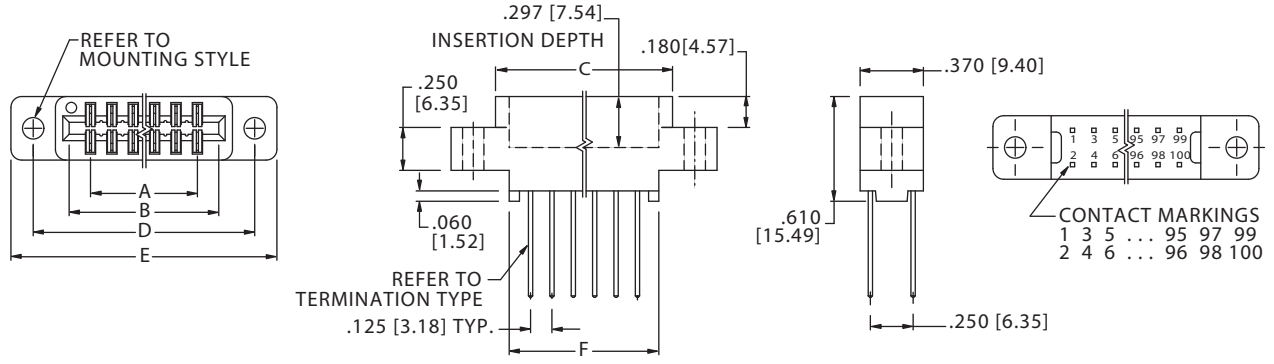
MODIFICATION CODE**
(See Opposite Page)
H = Dip Solder .190" [4.83 mm] Tail Length (.025" [0.64 mm] Round) or (.025" [0.64 mm] Square)
H(.165) = Dip Solder .165" [4.19 mm] Tail Length (.025" [0.64 mm] Round Only)

MOUNTING STYLE (See Opposite Page)
1 = .125" [3.18 mm] Clearance Hole
2 = #4-40 Threaded Insert
4 = No Mounting
5 = Raised, .125" [3.18 mm] Clearance Hole
6 = Raised, #4-40 Threaded Insert

TERMINATION TYPE (See Opposite Page)
LOOP BELLOWS
R = .025" [0.64 mm] Round
W = .025" [0.64 mm] Square

** See Pages 142-143 for Specifications and other Variations

DIMENSIONS Dimensions in [ ] are in millimeters, all others are in inches.

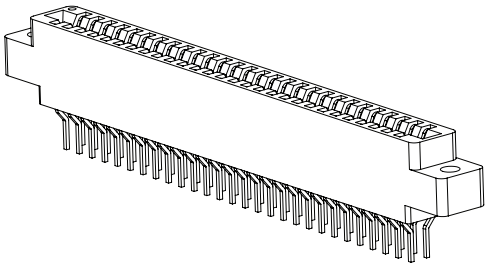


POSITIONS/ CONTACTS	INCHES						MILLIMETERS					
	A±.008	B±.008	C±.015	D±.010	E±.020	F±.015	A±0.20	B±0.20	C±0.38	D±0.25	E±0.51	F±0.38
06/12	0.625	0.875	1.035	1.295	1.555	0.875	15.88	22.23	26.29	32.89	39.50	22.23
10/20	1.125	1.375	1.535	1.795	2.055	1.375	28.58	34.93	38.99	45.59	52.20	34.93
14/28	1.625	1.875	2.035	2.295	2.555	1.875	41.28	47.63	51.69	58.29	64.90	47.63
15/30	1.750	2.000	2.160	2.420	2.680	2.000	44.45	50.80	54.86	61.47	68.07	50.80
18/36	2.125	2.375	2.535	2.795	3.055	2.375	53.98	60.33	64.39	70.99	77.60	60.33
22/44	2.625	2.875	3.035	3.295	3.555	2.875	66.68	73.03	77.09	83.69	90.30	73.03
24/48	2.875	3.125	3.285	3.545	3.805	3.125	73.03	79.38	83.44	90.04	96.65	79.38
28/56	3.375	3.625	3.785	4.045	4.305	3.625	85.73	92.08	96.14	102.74	109.35	92.08
30/60	3.625	3.875	4.035	4.295	4.555	3.875	92.08	98.43	102.49	109.09	115.70	98.43
31/62	3.750	4.000	4.160	4.420	4.680	4.000	95.25	101.60	105.66	112.27	118.87	101.60
32/64	3.875	4.125	4.285	4.545	4.805	4.125	98.43	104.78	108.84	115.44	122.05	104.78
35/70	4.250	4.500	4.660	4.920	5.180	4.500	107.95	114.30	118.36	124.97	131.57	114.30
36/72	4.375	4.625	4.785	5.045	5.305	4.625	111.13	117.48	121.54	128.14	134.75	117.48
40/80	4.875	5.125	5.285	5.545	5.805	5.125	123.83	130.18	134.24	140.84	147.45	130.18
43/86	5.250	5.500	5.660	5.920	6.180	5.500	133.35	139.70	143.76	150.37	156.97	139.70
44/88	5.375	5.625	5.785	6.045	6.305	5.625	136.53	142.88	146.94	153.54	160.15	142.88
49/98	6.000	6.250	6.410	6.670	6.930	6.250	152.40	158.75	162.81	169.42	176.02	158.75
50/100	6.125	6.375	6.535	6.795	7.055	6.375	155.58	161.93	165.99	172.59	179.20	161.93

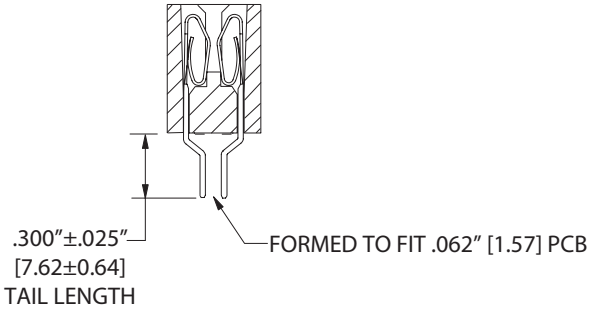
.125" [3.18 mm] Contact Centers, .550" [13.97 mm] Insulator Height, .025" [0.64 mm] Square Card Extender

SPECIFICATIONS

- Accommodates .062" ± .008" [1.57 mm ± 0.20 mm] PC Board
- Insulator Material available in PBT, PPS, or PA9T
- 3 Amps current rating for one contact energized
- Insulator / Contact Specifications and Part Number Options See opposite page
- P/N 04-0004-000 for In Between Contact Polarizing Key See Page 186 (Sold Separately)
- Molded-in Key Available - Consult Factory

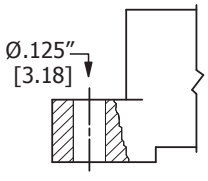


TERMINATION TYPE

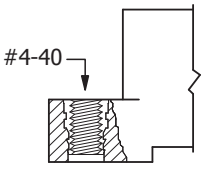


Example P/N: MPSL-0125-10-DWE-4KTT

MOUNTING STYLE

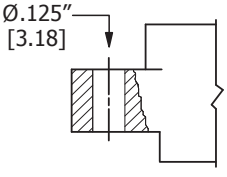


(STYLE 1)

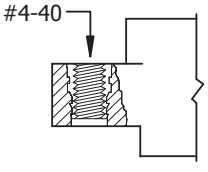


(STYLE 2)

(STYLE 4)



(STYLE 5)



(STYLE 6)

.125" [3.18 mm] Contact Centers, .550" [13.97 mm] Insulator Height, .025" [0.64 mm] Square Card Extender

PART NUMBER OPTIONS

MPSL - 0 125 - 10 - D WE - 4 K TT

PLATING - RoHS Compliant
All Platings are Lead Free and have .000050" Nickel Underplate

	Contact Surface	Termination
*MPSL =	.000010" Gold	.000100" Pure Tin, Matte
*MPL =	.000100" Overall Pure Tin, Matte	
MP =	.000010" Overall Gold	

***Requires 'K' Modification Code**
Refer to Page 142 for Operating/Processing Temperatures

INSULATOR MATERIAL**
0 = PBT

CONTACT CENTERS
125 = .125" [3.18 mm]

NUMBER OF POSITIONS
Contacts Per Row (See Position Chart Below)

READOUT
D = Dual

MODIFICATION CODE**
TT = No Standoffs

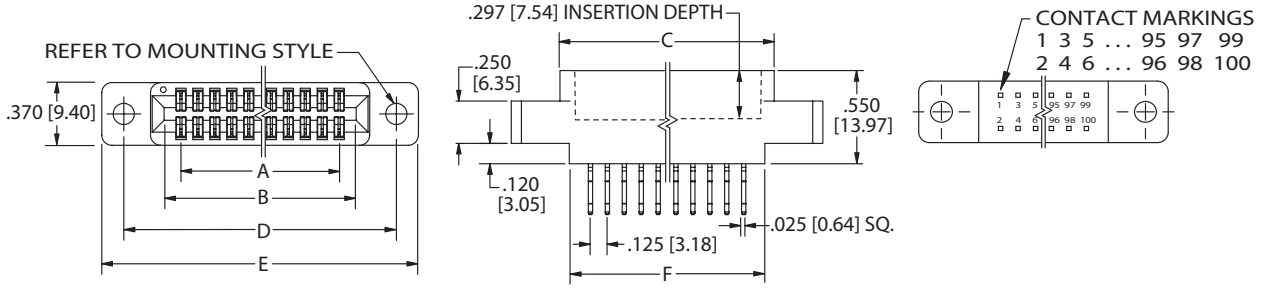
PLATING MODIFICATION CODE**
K = Required on MPSL or MPL Plating
Omit for MP Plating (Overall Gold)

MOUNTING STYLE (See Opposite Page)
1 = .125" [3.18 mm] Clearance Hole
2 = #4-40 Threaded Insert
4 = No Mounting
5 = Raised, .125" [3.18 mm] Clearance Hole
6 = Raised, #4-40 Threaded Insert

TERMINATION TYPE (See Opposite Page)
WE = Card Extender

** See Pages 142-143 for Specifications and other Variations

DIMENSIONS Dimensions in [ ] are in millimeters, all others are in inches.



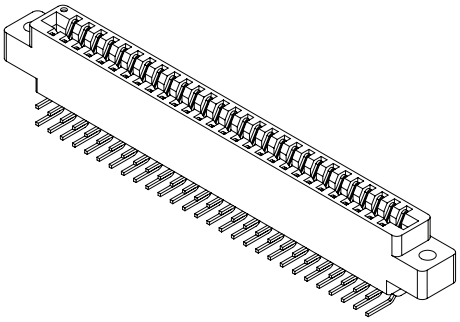
POSITIONS/ CONTACTS	INCHES						MILLIMETERS					
	A±.008	B±.008	C±.015	D±.010	E±.020	F±.015	A±0.20	B±0.20	C±0.38	D±0.25	E±0.51	F±0.38
06/12	0.625	0.875	1.035	1.295	1.555	0.875	15.88	22.23	26.29	32.89	39.50	22.23
10/20	1.125	1.375	1.535	1.795	2.055	1.375	28.58	34.93	38.99	45.59	52.20	34.93
14/28	1.625	1.875	2.035	2.295	2.555	1.875	41.28	47.63	51.69	58.29	64.90	47.63
15/30	1.750	2.000	2.160	2.420	2.680	2.000	44.45	50.80	54.86	61.47	68.07	50.80
18/36	2.125	2.375	2.535	2.795	3.055	2.375	53.98	60.33	64.39	70.99	77.60	60.33
22/44	2.625	2.875	3.035	3.295	3.555	2.875	66.68	73.03	77.09	83.69	90.30	73.03
24/48	2.875	3.125	3.285	3.545	3.805	3.125	73.03	79.38	83.44	90.04	96.65	79.38
28/56	3.375	3.625	3.785	4.045	4.305	3.625	85.73	92.08	96.14	102.74	109.35	92.08
30/60	3.625	3.875	4.035	4.295	4.555	3.875	92.08	98.43	102.49	109.09	115.70	98.43
31/62	3.750	4.000	4.160	4.420	4.680	4.000	95.25	101.60	105.66	112.27	118.87	101.60
32/64	3.875	4.125	4.285	4.545	4.805	4.125	98.43	104.78	108.84	115.44	122.05	104.78
35/70	4.250	4.500	4.660	4.920	5.180	4.500	107.95	114.30	118.36	124.97	131.57	114.30
36/72	4.375	4.625	4.785	5.045	5.305	4.625	111.13	117.48	121.54	128.14	134.75	117.48
40/80	4.875	5.125	5.285	5.545	5.805	5.125	123.83	130.18	134.24	140.84	147.45	130.18
43/86	5.250	5.500	5.660	5.920	6.180	5.500	133.35	139.70	143.76	150.37	156.97	139.70
44/88	5.375	5.625	5.785	6.045	6.305	5.625	136.53	142.88	146.94	153.54	160.15	142.88
49/98	6.000	6.250	6.410	6.670	6.930	6.250	152.40	158.75	162.81	169.42	176.02	158.75
50/100	6.125	6.375	6.535	6.795	7.055	6.375	155.58	161.93	165.99	172.59	179.20	161.93

SULLINS

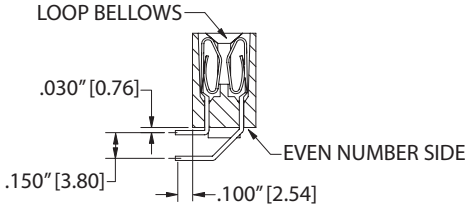
.125" [3.18 mm] Contact Centers, .610" [15.49 mm] Insulator Height, Right Angle

SPECIFICATIONS

- Accommodates .062" ± .008" [1.57 mm ± 0.20 mm] PC Board
- Insulator Material available in PBT, PPS, or PA9T
- 3 Amps current rating for one contact energized
- Insulator / Contact Specifications and Part Number Options See opposite page
- P/N 04-0004-000 for In Between Contact Polarizing Key See Page 186 (Sold Separately)
- Molded-in Key Available - Consult Factory

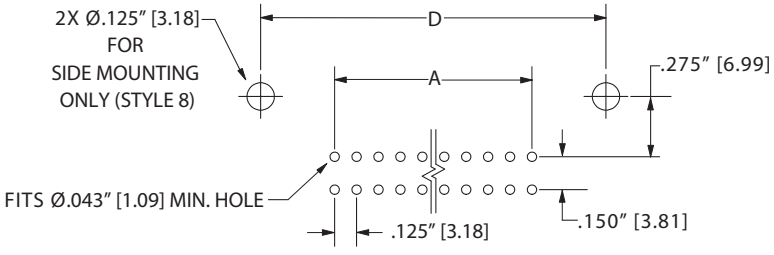


TERMINATION TYPE

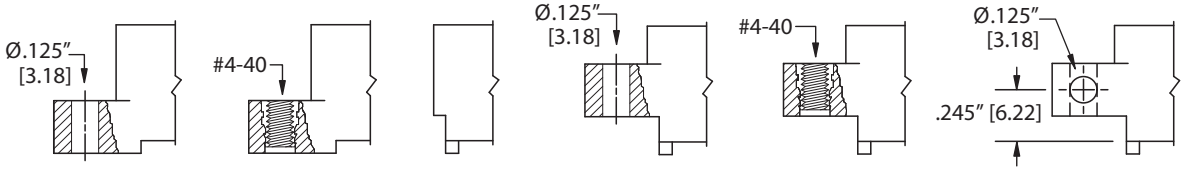


Example P/N: MP-0125-10-DW-1R

PCB LAYOUT



MOUNTING STYLE



(STYLE 1) **(STYLE 2)** **(STYLE 4)** **(STYLE 5)** **(STYLE 6)** **(STYLE 8)**

.125" [3.18 mm] Contact Centers, .610" [15.49 mm] Insulator Height, Right Angle

PART NUMBER OPTIONS

MPSL - 0 125 - 10 - D W - 1 K R

PLATING - RoHS Compliant
All Platings are Lead Free and have .000050" Nickel Underplate

	Contact Surface	Termination
*MPSL =	.000010" Gold	.000100" Pure Tin, Matte
*MPL =	.000100" Overall Pure Tin, Matte	
MP =	.000010" Overall Gold	

***Requires 'K' Modification Code**
Refer to Page 142 for Operating/Processing Temperatures

INSULATOR MATERIAL**
0 = PBT

CONTACT CENTERS
125 = .125" [3.18 mm]

NUMBER OF POSITIONS
Contacts Per Row (See Position Chart Below)

READOUT
D = Dual

MODIFICATION CODE**
R = Right Angle

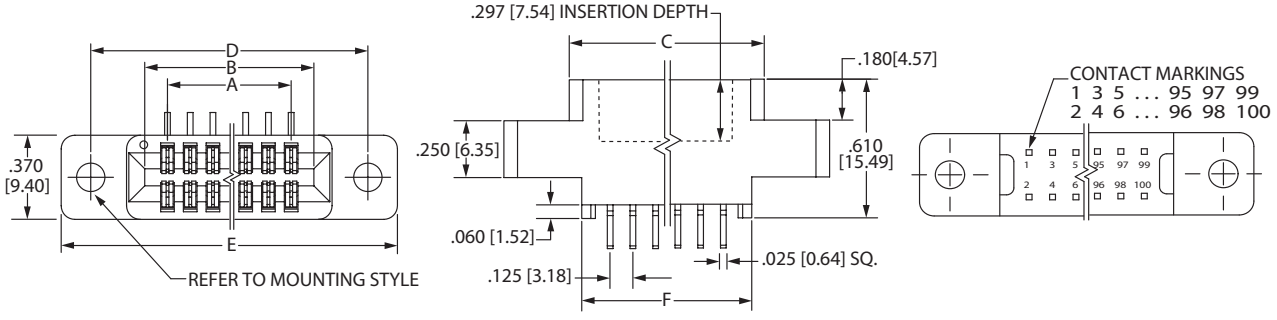
PLATING MODIFICATION CODE**
K = Required on MPSL or MPL Plating
Omit for MP Plating (Overall Gold)

MOUNTING STYLE (See Opposite Page)
1 = .125" [3.18 mm] Clearance Hole
2 = #4-40 Threaded Insert
4 = No Mounting
5 = Raised, .125" [3.18 mm] Clearance Hole
6 = Raised, #4-40 Threaded Insert
8 = Raised, Side Mounting, .125" [3.18 mm] Clearance Hole

TERMINATION TYPE (See Opposite Page)
LOOP BELLOWS
W = .025" [0.64 mm] Square

** See Pages 142-143 for Specifications and other Variations

DIMENSIONS Dimensions in [ ] are in millimeters, all others are in inches.

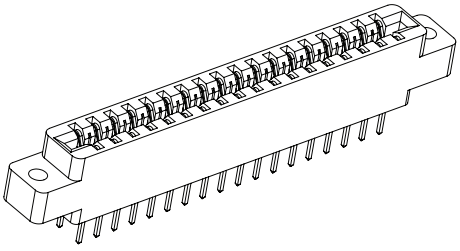


POSITIONS/ CONTACTS	INCHES						MILLIMETERS					
	A±.008	B±.008	C±.015	D±.010	E±.020	F±.015	A±0.20	B±0.20	C±0.38	D±0.25	E±0.51	F±0.38
06/12	0.625	0.875	1.035	1.295	1.555	0.875	15.88	22.23	26.29	32.89	39.50	22.23
10/20	1.125	1.375	1.535	1.795	2.055	1.375	28.58	34.93	38.99	45.59	52.20	34.93
14/28	1.625	1.875	2.035	2.295	2.555	1.875	41.28	47.63	51.69	58.29	64.90	47.63
15/30	1.750	2.000	2.160	2.420	2.680	2.000	44.45	50.80	54.86	61.47	68.07	50.80
18/36	2.125	2.375	2.535	2.795	3.055	2.375	53.98	60.33	64.39	70.99	77.60	60.33
22/44	2.625	2.875	3.035	3.295	3.555	2.875	66.68	73.03	77.09	83.69	90.30	73.03
24/48	2.875	3.125	3.285	3.545	3.805	3.125	73.03	79.38	83.44	90.04	96.65	79.38
28/56	3.375	3.625	3.785	4.045	4.305	3.625	85.73	92.08	96.14	102.74	109.35	92.08
30/60	3.625	3.875	4.035	4.295	4.555	3.875	92.08	98.43	102.49	109.09	115.70	98.43
31/62	3.750	4.000	4.160	4.420	4.680	4.000	95.25	101.60	105.66	112.27	118.87	101.60
32/64	3.875	4.125	4.285	4.545	4.805	4.125	98.43	104.78	108.84	115.44	122.05	104.78
35/70	4.250	4.500	4.660	4.920	5.180	4.500	107.95	114.30	118.36	124.97	131.57	114.30
36/72	4.375	4.625	4.785	5.045	5.305	4.625	111.13	117.48	121.54	128.14	134.75	117.48
40/80	4.875	5.125	5.285	5.545	5.805	5.125	123.83	130.18	134.24	140.84	147.45	130.18
43/86	5.250	5.500	5.660	5.920	6.180	5.500	133.35	139.70	143.76	150.37	156.97	139.70
44/88	5.375	5.625	5.785	6.045	6.305	5.625	136.53	142.88	146.94	153.54	160.15	142.88
49/98	6.000	6.250	6.410	6.670	6.930	6.250	152.40	158.75	162.81	169.42	176.02	158.75
50/100	6.125	6.375	6.535	6.795	7.055	6.375	155.58	161.93	165.99	172.59	179.20	161.93

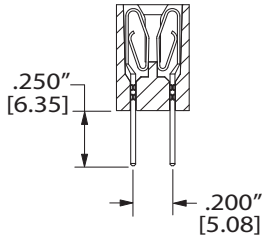
.150" [3.81 mm] Contact Centers, .550" [13.97 mm] Insulator Height, .025" [0.64 mm] Square & .025" [0.64 mm] Round Dip Solder

SPECIFICATIONS

- Accommodates .062" ± .008" [1.57 mm ± 0.20 mm] PC Board
- Insulator Material available in PBT, PPS, or PA9T
- 3 Amps current rating for one contact energized
- Insulator / Contact Specifications and Part Number Options See opposite page
- P/N 04-0004-000 for In Between Contact Polarizing Key See Page 186 (Sold Separately)
- Molded-in Key Available - Consult Factory

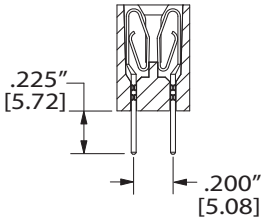


TERMINATION TYPE



.250"[6.35] TAIL LENGTH

Termination Code	Modification Code	Termination Type	Fits Min. Hole Size	Example Part Number
W	H	.025" [0.64] Square	.040" [1.02]	***MPSL-0150-18-DW-1HK***
R	H	.025" [0.64] Round	.033" [0.84]	***MPSL-0150-18-DR-1HK***

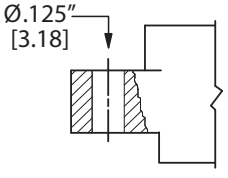


.225"[5.72] TAIL LENGTH

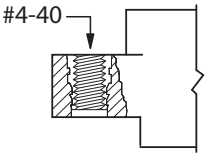
Termination Code	Modification Code	Termination Type	Fits Min. Hole Size	Example Part Number
R	H(.225)	.025" [0.64] Round	.033" [0.84]	***MPSL-0150-18-DR-1HK(.225)***

MOUNTING STYLE

(STYLE 4)



(STYLE 5)



(STYLE 6)

.150" [3.81 mm] Contact Centers, .550" [13.97 mm] Insulator Height, .025" [0.64 mm] Square & .025" [0.64 mm] Round Dip Solder

PART NUMBER OPTIONS

MPSL - 0 150 - 18 - D W - 1 H K

PLATING - RoHS Compliant
All Platings are Lead Free and have .000050" Nickel Underplate

	Contact Surface	Termination
*MPSL =	.000010" Gold	.000100" Pure Tin Matte
*MPL =	.000100" Overall Pure Tin, Matte	
MP =	.000010" Overall Gold	

*** Requires 'K' Modification Code**
Refer to Page 142 for Operating/Processing Temperatures

INSULATOR MATERIAL**
0 = PBT

CONTACT CENTERS
150 = .150" [3.81 mm]

NUMBER OF POSITIONS
Contacts Per Row (See Position Chart Below)

READOUT
D = Dual

PLATING MODIFICATION CODE**
K = Required on MPSL or MPL Plating
Omit for MP Plating (Overall Gold)

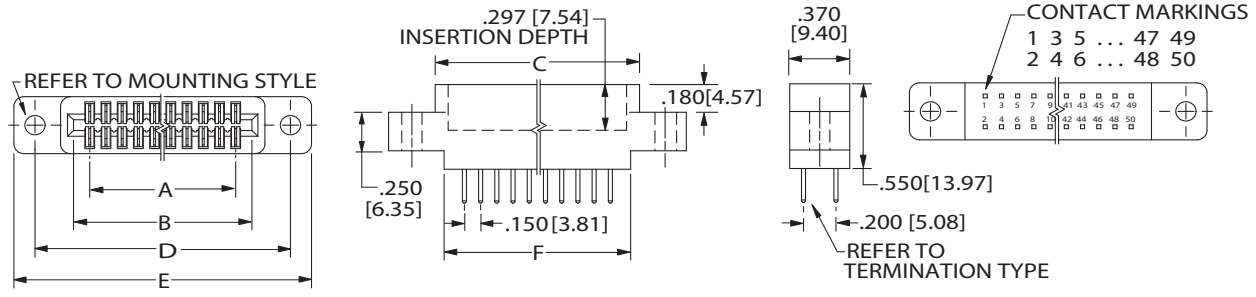
MODIFICATION CODE**
(See Opposite Page)
H = Dip Solder .250" [6.35 mm] Tail Length (.025" [0.64 mm] Round) or (.025" [0.64 mm] Square)
H(.225) = Dip Solder .225" [5.72 mm] Tail Length (.025" [0.64 mm] Round Only)

MOUNTING STYLE (See Opposite Page)
4 = No Mounting
5 = Raised, .125" [3.18 mm] Clearance Hole
6 = Raised, #4-40 Threaded Insert

TERMINATION TYPE (See Opposite Page)
LOOP BELLOWS
W = .025" [0.64 mm] Square
R = .025" [0.64 mm] Round

** See Pages 142-143 for Specifications and other Variations

DIMENSIONS Dimensions in [ ] are in millimeters, all others are in inches.

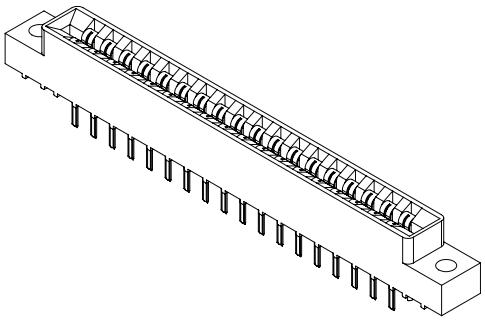


POSITIONS/ CONTACTS	INCHES						MILLIMETERS					
	A±.008	B±.008	C±.015	D±.015	E±.020	F±.015	A±0.20	B±0.20	C±0.38	D±0.38	E±0.51	F±0.38
18/36	2.550	2.850	2.990	3.300	3.550	2.840	64.77	72.39	75.95	83.82	90.17	72.14
25/50	3.600	3.900	4.040	--------	--------	3.890	91.44	99.06	102.62	--------	--------	98.81
26/52	3.750	4.050	4.190	4.500	4.750	4.040	95.25	102.87	106.43	114.30	120.65	102.62
28/56	4.050	4.350	4.490	4.800	5.050	4.340	102.87	110.49	114.05	121.92	128.27	110.24
32/64	4.650	4.950	5.090	5.400	5.650	4.940	118.11	125.73	129.29	137.16	143.51	125.48
50/100	7.350	7.650	7.800	--------	--------	7.640	186.69	194.31	198.12	--------	--------	194.06

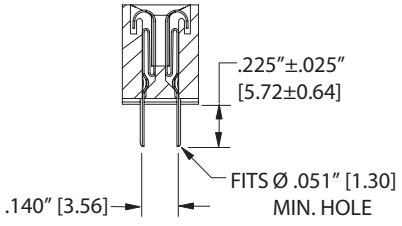
.156" [3.96 mm] Contact Centers, .431" [10.95 mm] Insulator Height, Dip Solder

SPECIFICATIONS

- Accommodates .062" ± .008" [1.57 mm ± 0.20 mm] PC Board
- Insulator Material available in PBT, PPS, or PA9T
- 3 Amps current rating for one contact energized (for 5 Amps application, consult factory)
- Insulator / Contact Specifications and Part Number Options See opposite page
- Row Spacing Available in .140" [3.56 mm] or .200" [5.08 mm] (Use Modification Code 'E9' or 'X9' for .200" [5.08 mm])
- P/N 04-0003-000 for In Between Contact Polarizing Key
  P/N 04-0002-000 for In Contact Polarizing Key
  See Page 186 (Sold Separately)
- Molded-in Key Available - Consult Factory

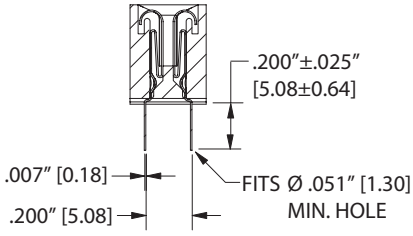


TERMINATION TYPE



DIP SOLDER (S)
.140˝ [3.56] ROW SPACING

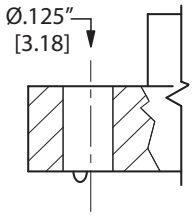
Example P/N: MPSL-0156-10-DS-1K



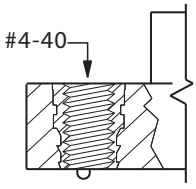
DIP SOLDER (S)
.200˝ [5.08] ROW SPACING
REQUIRES 'E9' OR 'X9' MODIFICATION CODE

Example P/N: MPSL-0156-10-DS-1X9K

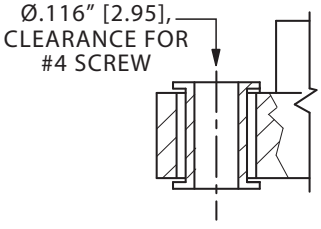
MOUNTING STYLE



(STYLE 1)



(STYLE 2)



(STYLE 3)

(STYLE 4)

.156" [3.96 mm] Contact Centers, .431" [10.95 mm] Insulator Height, Dip Solder

PART NUMBER OPTIONS

MPSL - 0 156 - 10 - D S - 1 K

PLATING - RoHS Compliant
All Platings are Lead Free and have .000050" Nickel Underplate

	Contact Surface	Termination
*MPSL =	.000010" Gold	.000100" Pure Tin, Matte
*MPL =	.000100" Overall Pure Tin, Matte	
MP =	.000010" Overall Gold	

***Requires 'K' Modification Code**
Refer to Page 142 for Operating/Processing Temperatures

INSULATOR MATERIAL**
0 = PBT

CONTACT CENTERS
156 = .156" [3.96 mm]

NUMBER OF POSITIONS
Contacts Per Row (See Position Chart Below)

MODIFICATION CODE**
K = Required on MPSL or MPL Plating
Omit for MP Plating (Overall Gold)
E9, X9 = .200" [5.08 mm] Row Spacing

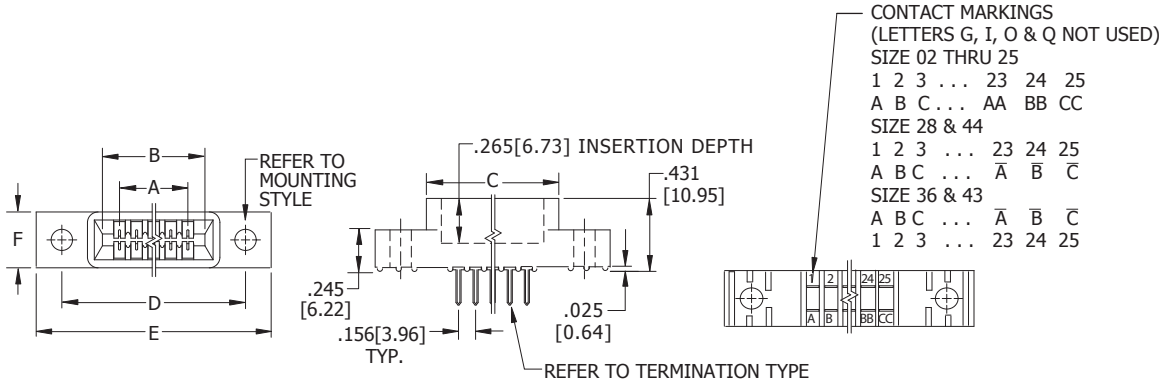
MOUNTING STYLE (See Opposite Page)
1 = .125" [3.18 mm] Clearance Hole
2 = #4-40 Threaded Insert
3 = Floating Bobbin
4 = No Mounting

TERMINATION TYPE (See Opposite Page)
S = Dip Solder

READOUT
D = Dual

** See Pages 142-143 for Specifications and other Variations

DIMENSIONS Dimensions in [ ] are in millimeters, all others are in inches.

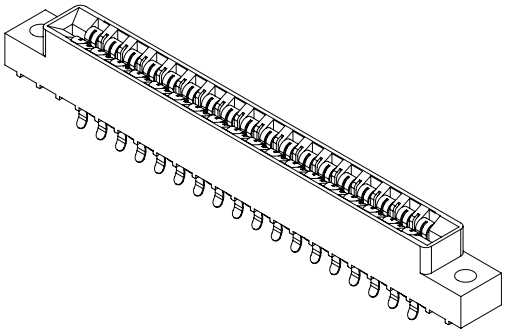


POSITIONS/ CONTACTS	INCHES						MILLIMETERS					
	A±.008	B±.008	C±.015	D±.010	E MAX	F+.005/-.015	A±0.20	B±0.20	C±0.38	D±0.25	E MAX	F+0.13/-0.38
02/04	0.156	0.476	0.596	'N' MOUNTING		0.325	3.96	12.09	15.14	'N' MOUNTING		8.26
03/06	0.312	0.632	0.752				7.92	16.05	19.10			
06/12	0.780	1.100	1.220	1.533	1.902		19.81	27.94	30.99	38.94	48.31	
08/16	1.092	1.412	1.532	1.845	2.214		27.74	35.86	38.91	46.86	56.24	
10/20	1.404	1.724	1.844	2.157	2.526		35.66	43.79	46.84	54.79	64.16	
11/22	1.560	1.880	2.000	2.313	2.682		39.62	47.75	50.80	58.75	68.12	
12/24	1.716	2.036	2.156	2.469	2.838		43.59	51.71	54.76	62.71	72.09	
15/30	2.184	2.504	2.624	2.937	3.306		55.47	63.60	66.65	74.60	83.97	
18/36	2.652	2.972	3.092	3.405	3.774		67.36	75.49	78.54	86.49	95.86	
22/44	3.276	3.596	3.716	4.029	4.398		83.21	91.34	94.39	102.34	111.71	
24/48	3.588	3.908	4.028	4.341	4.710		91.14	99.26	102.31	110.26	119.63	
25/50	3.744	4.064	4.184	4.497	4.866		95.10	103.23	106.27	114.22	123.60	
28/56	4.212	4.532	4.652	4.965	5.334	0.438	106.98	115.11	118.16	126.11	135.48	11.13
36/72	5.460	5.780	5.900	6.213	6.582		138.68	146.81	149.86	157.81	167.18	
43/86	6.552	6.872	6.992	7.305	7.674	0.500	166.42	174.55	177.60	185.55	194.92	12.70
44/88	6.708	7.028	7.148	7.461	7.830		170.38	178.51	181.56	189.51	198.88	

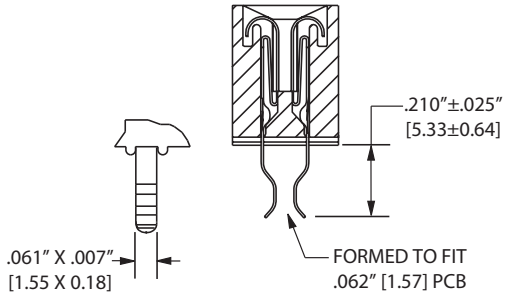
.156" [3.96 mm] Contact Centers, .431" [10.95 mm] Insulator Height, Card Extender

SPECIFICATIONS

- Accommodates .062" ± .008" [1.57 mm ± 0.20 mm] PC Board
- Insulator Material available in PBT, PPS, or PA9T
- 3 Amps current rating for one contact energized (for 5 Amps application, consult factory)
- Insulator / Contact Specifications and Part Number Options See opposite page
- P/N 04-0003-000 for In Between Contact Polarizing Key
  P/N 04-0002-000 for In Contact Polarizing Key
  See Page 186 (Sold Separately)
- Molded-in Key Available - Consult Factory

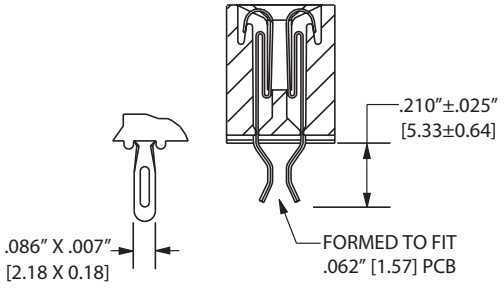


TERMINATION TYPE



CARD EXTENDER (SE)

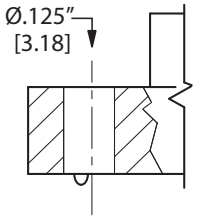
Example P/N: MPSL-0156-10-DSE-1K



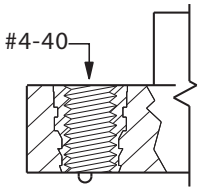
ECONOMY EYELET CARD EXTENDER (PE)

Example P/N: EMPL-0156-10-DPE-1K

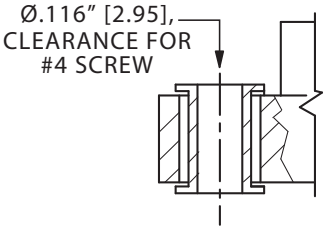
MOUNTING STYLE



(STYLE 1)



(STYLE 2)



(STYLE 3)

(STYLE 4)

.156" [3.96 mm] Contact Centers, .431" [10.95 mm] Insulator Height, Card Extender

PART NUMBER OPTIONS

MPSL - 0 156 - 10 - D SE - 1 K

PLATING - RoHS Compliant
All Platings are Lead Free and have .000050" Nickel Underplate

	Contact Surface	Termination
*MPSL =	.000010" Gold	.000100" Pure Tin Matte
*MPL =	.000100" Overall Pure Tin, Matte	
MP =	.000010" Overall Gold	

Platings that start with 'E' are for Economy Eyelet Only

*EMPSL =	.000010" Gold	.000100" Pure Tin Matte
*EMPL =	.000100" Overall Pure Tin, Matte	
EMP =	.000010" Overall Gold	

*** Requires 'K' Modification Code**

Other Plating and thicknesses available upon request
Refer to Page 142 for Operating/Processing Temperatures

INSULATOR MATERIAL**
0 = PBT

CONTACT CENTERS
156 = .156" [3.96 mm]

NUMBER OF POSITIONS
Contacts Per Row (See Position Chart Below)

PLATING MODIFICATION CODE**
K = Required on MPSL, MPL, EMPSL, or EMPL Plating
Omit for MP Plating (Overall Gold)

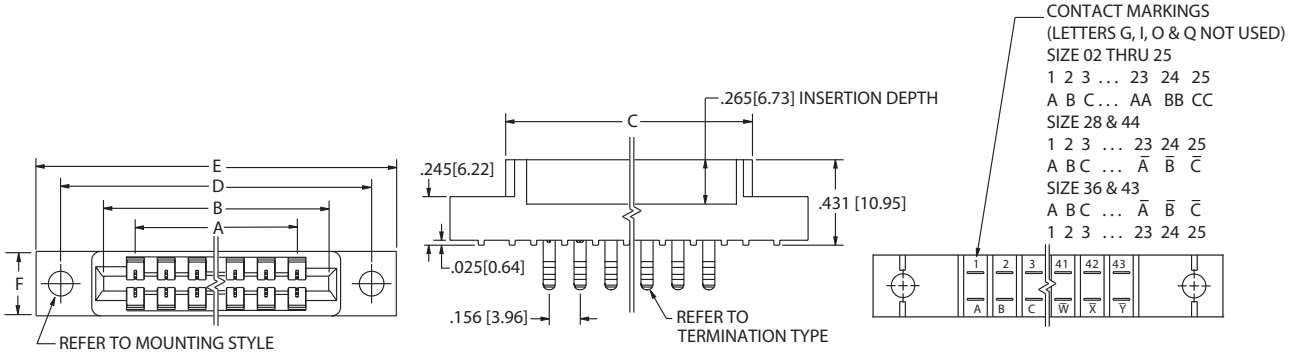
MOUNTING STYLE (See Opposite Page)
1 = .125" [3.18 mm] Clearance Hole
2 = #4-40 Threaded Insert
3 = Floating Bobbin
4 = No Mounting

TERMINATION TYPE (See Opposite Page)
SE = Card Extender
Requires Part Number to start with 'M'
PE = Economy Eyelet Card Extender
Requires Part Number to start with 'E'

READOUT
D = Dual

** See Pages 142-143 for Specifications and other Variations

DIMENSIONS Dimensions in [ ] are in millimeters, all others are in inches.



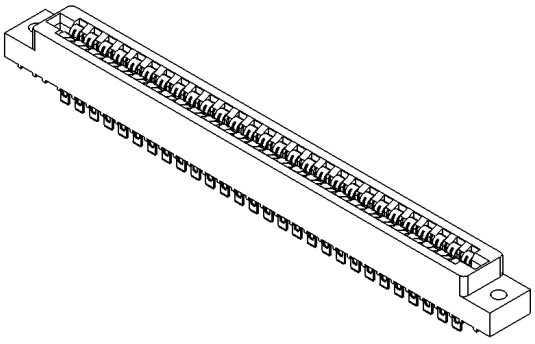
POSITIONS/ CONTACTS	INCHES						MILLIMETERS					
	A±.008	B±.008	C±.015	D±.010	E MAX	F+.005/-.015	A±0.20	B±0.20	C±0.38	D±0.25	E MAX	F+0.13/-0.38
02/04	0.156	0.476	0.596	'N' MOUNTING		0.325	3.96	12.09	15.14	'N' MOUNTING		8.26
03/06	0.312	0.632	0.752				7.92	16.05	19.10			
06/12	0.780	1.100	1.220	1.533	1.902		19.81	27.94	30.99	38.94	48.31	
08/16	1.092	1.412	1.532	1.845	2.214		27.74	35.86	38.91	46.86	56.24	
10/20	1.404	1.724	1.844	2.157	2.526		35.66	43.79	46.84	54.79	64.16	
11/22	1.560	1.880	2.000	2.313	2.682		39.62	47.75	50.80	58.75	68.12	
12/24	1.716	2.036	2.156	2.469	2.838		43.59	51.71	54.76	62.71	72.09	
15/30	2.184	2.504	2.624	2.937	3.306		55.47	63.60	66.65	74.60	83.97	
18/36	2.652	2.972	3.092	3.405	3.774		67.36	75.49	78.54	86.49	95.86	
22/44	3.276	3.596	3.716	4.029	4.398		83.21	91.34	94.39	102.34	111.71	
24/48	3.588	3.908	4.028	4.341	4.710		91.14	99.26	102.31	110.26	119.63	
25/50	3.744	4.064	4.184	4.497	4.866		95.10	103.23	106.27	114.22	123.60	
28/56	4.212	4.532	4.652	4.965	5.334	0.438	106.98	115.11	118.16	126.11	135.48	11.13
36/72	5.460	5.780	5.900	6.213	6.582		138.68	146.81	149.86	157.81	167.18	
43/86	6.552	6.872	6.992	7.305	7.674	0.500	166.42	174.55	177.60	185.55	194.92	12.70
44/88	6.708	7.028	7.148	7.461	7.830		170.38	178.51	181.56	189.51	198.88	

SULLINS

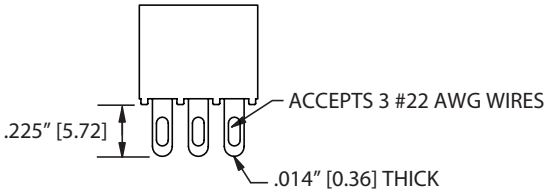
.156" [3.96 mm] Contact Centers, .431" [10.95 mm] Insulator Height, Eyelet

SPECIFICATIONS

- Accommodates .062" ± .008" [1.57 mm ± 0.20 mm] PC Board
- Insulator Material available in PBT, PPS, or PA9T
- 3 Amps current rating for one contact energized (for 5 Amps application, consult factory)
- Insulator / Contact Specifications and Part Number Options See opposite page
- P/N 04-0003-000 for In Between Contact Polarizing Key
  P/N 04-0002-000 for In Contact Polarizing Key
  See Page 186 (Sold Separately)
- Molded-in Key Available - Consult Factory

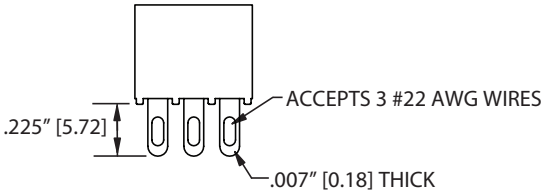


TERMINATION TYPE



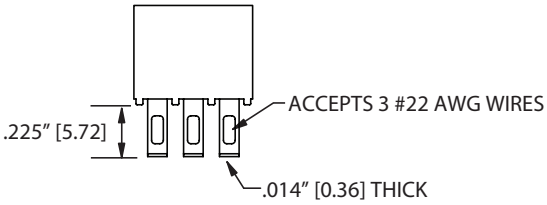
EYELET (P)

Example P/N: MP-0156-10-DP-1



ECONOMY EYELET (P)

Example P/N: EMPSL-0156-10-DP-1K

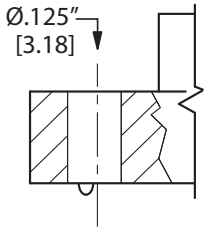


ALTERNATE EYELET SHAPE

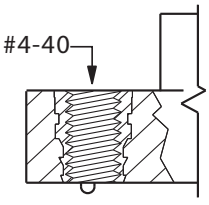
Example P/N: MP-0156-10-DP-1Y

For Beryllium Copper (Y) Only

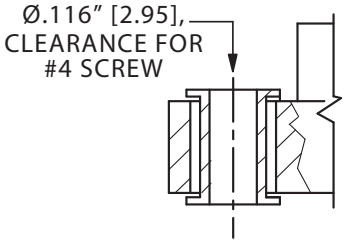
MOUNTING STYLE



(STYLE 1)



(STYLE 2)



(STYLE 3)

(STYLE 4)

.156" [3.96 mm] Contact Centers, .431" [10.95 mm] Insulator Height, Eyelet

PART NUMBER OPTIONS

MPL - 0 156 - 10 - D P - 1 K

PLATING - RoHS Compliant
All Platings are Lead Free and have .000050" Nickel Underplate

	Contact Surface	Termination
*MPSL =	.000010" Gold	.000100" Pure Tin Matte
*MPL =	.000100" Overall Pure Tin, Matte	
MP =	.000010" Overall Gold	

Platings that start with 'E' are for Economy Eyelet Only

*EMPSL =	.000010" Gold	.000100" Pure Tin Matte
*EMPL =	.000100" Overall Pure Tin, Matte	
EMP =	.000010" Overall Gold	

*** Requires 'K' Modification Code**
Other Plating and thicknesses available upon request
Refer to Page 142 for Operating/Processing Temperatures

INSULATOR MATERIAL**
0 = PBT

CONTACT CENTERS
156 = .156" [3.96 mm]

NUMBER OF POSITIONS
Contacts Per Row (See Position Chart Below)

PLATING MODIFICATION CODE**
K = Required on Tin Plating Terminations
Omit for MP and EMP Plating (Overall Gold)

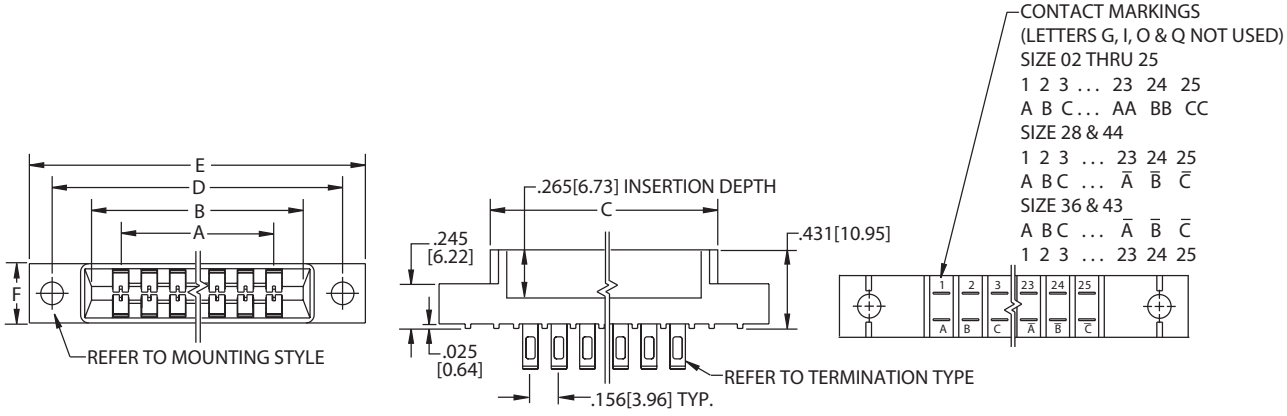
MOUNTING STYLE (See Opposite Page)
1 = .125" [3.18 mm] Clearance Hole
2 = #4-40 Threaded Insert
3 = Floating Bobbin
4 = No Mounting

TERMINATION TYPE (See Opposite Page)
P = Pierced Eyelet, .014" [0.36 mm] Thick
MPL and MP Plating Only
P = Economy Eyelet, .007" [0.18 mm] Thick
Requires Part Number to start with 'E'

READOUT
D = Dual

** See Pages 142-143 for Specifications and other Variations

DIMENSIONS Dimensions in [ ] are in millimeters, all others are in inches.



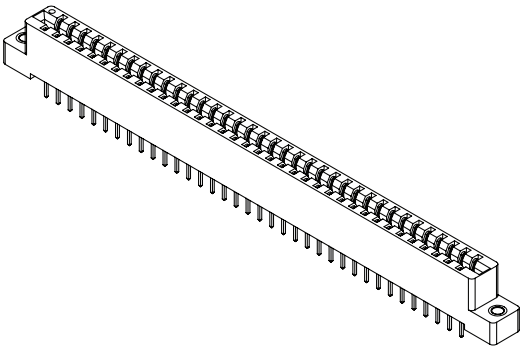
POSITIONS/ CONTACTS	INCHES						MILLIMETERS					
	A±.008	B±.008	C±.015	D±.010	E MAX	F+.005/-.015	A±0.20	B±0.20	C±0.38	D±0.25	E MAX	F+0.13/-0.38
02/04	0.156	0.476	0.596	'N' MOUNTING		0.325	3.96	12.09	15.14	'N' MOUNTING		8.26
03/06	0.312	0.632	0.752				7.92	16.05	19.10			
06/12	0.780	1.100	1.220	1.533	1.902		19.81	27.94	30.99	38.94	48.31	
08/16	1.092	1.412	1.532	1.845	2.214		27.74	35.86	38.91	46.86	56.24	
10/20	1.404	1.724	1.844	2.157	2.526		35.66	43.79	46.84	54.79	64.16	
11/22	1.560	1.880	2.000	2.313	2.682		39.62	47.75	50.80	58.75	68.12	
12/24	1.716	2.036	2.156	2.469	2.838		43.59	51.71	54.76	62.71	72.09	
15/30	2.184	2.504	2.624	2.937	3.306		55.47	63.60	66.65	74.60	83.97	
18/36	2.652	2.972	3.092	3.405	3.774		67.36	75.49	78.54	86.49	95.86	
22/44	3.276	3.596	3.716	4.029	4.398		83.21	91.34	94.39	102.34	111.71	
24/48	3.588	3.908	4.028	4.341	4.710		91.14	99.26	102.31	110.26	119.63	
25/50	3.744	4.064	4.184	4.497	4.866		95.10	103.23	106.27	114.22	123.60	
28/56	4.212	4.532	4.652	4.965	5.334	0.438	106.98	115.11	118.16	126.11	135.48	11.13
36/72	5.460	5.780	5.900	6.213	6.582		138.68	146.81	149.86	157.81	167.18	
43/86	6.552	6.872	6.992	7.305	7.674	0.500	166.42	174.55	177.60	185.55	194.92	12.70
44/88	6.708	7.028	7.148	7.461	7.830		170.38	178.51	181.56	189.51	198.88	

SULLINS

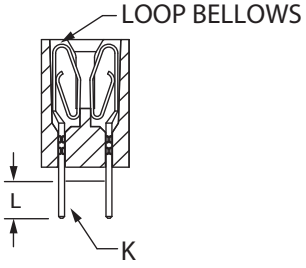
.156" [3.96 mm] Contact Centers, .610" [15.49 mm] Insulator Height, Wire Wrap & Dip Solder

SPECIFICATIONS

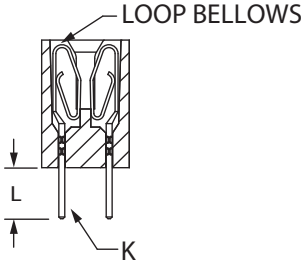
- Accommodates .062" ± .008" [1.57 mm ± 0.20 mm] PC Board
- Insulator Material available in PBT, PPS, or PA9T
- 3 Amps current rating for one contact energized
- Insulator / Contact Specifications and Part Number Options See opposite page
- P/N 04-0004-000 for In Between Contact Polarizing Key See Page 186 (Sold Separately)
- Molded-in Key Available - Consult Factory



TERMINATION TYPE

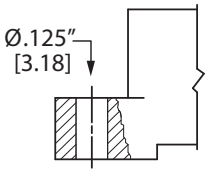


With Standoffs (Z)

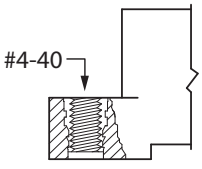


TERMINATION CODE	MODIFICATION CODE	TYPE	POST CROSS SECTION K	POST LENGTH L	FITS MIN. HOLE SIZE	EXAMPLE PART NUMBER
R	H	Dip Solder	.025" [0.64] Round	.190" [4.83]	.033" [0.84]	***MPSL-0156-10-DR-1HK***
R	H(.165)	Dip Solder	.025" [0.64] Round	.165" [4.19]	.033" [0.84]	***MPSL-0156-10-DR-1HK(.165)***
W	H	Dip Solder	.025" [0.64] Square	.190" [4.83]	.040" [1.02]	***MPSL-0156-10-DW-1HK***
W	OMIT	Wire Wrap	.025" [0.64] Square	.560" [14.20]	.040" [1.02]	***MPSL-0156-10-DW-1K***

MOUNTING STYLE

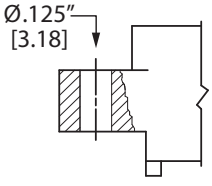


(STYLE 1)

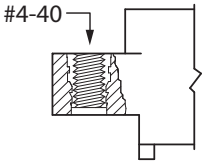


(STYLE 2)

(STYLE 4)



(STYLE 5)



(STYLE 6)

.156" [3.96 mm] Contact Centers, .610" [15.49 mm] Insulator Height, Wire Wrap & Dip Solder

PART NUMBER OPTIONS

MPSL - 0 156 - 10 - D W - 1 H K

PLATING - RoHS Compliant
All Platings are Lead Free and have .000050" Nickel Underplate

	Contact Surface	Termination
*MPSL =	.000010" Gold	.000100" Pure Tin, Matte
*MPL =	.000100" Overall Pure Tin, Matte	
MP =	.000010" Overall Gold	

***Requires 'K' Modification Code**
Refer to Page 142 for Operating/Processing Temperatures

INSULATOR MATERIAL**
0 = PBT

CONTACT CENTERS
156 = .156" [3.96 mm]

NUMBER OF POSITIONS
Contacts Per Row (See Position Chart Below)

READOUT
D = Dual

PLATING MODIFICATION CODE**
K = Required on MPSL or MPL Plating
Omit for MP Plating (Overall Gold)

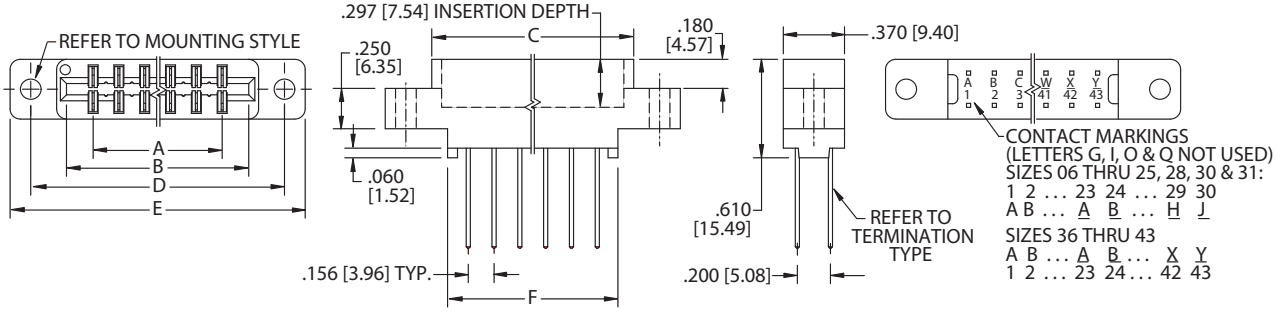
MODIFICATION CODE**
(See Opposite Page)
H = Dip Solder .190" [4.83 mm] Tail Length (.025" [0.64 mm] Round) or (.025" [0.64 mm] Square)
H(.165) = Dip Solder .165" [4.19 mm] Tail Length (.025" [0.64 mm] Round Only)
Z = With Standoffs

MOUNTING STYLE (See Opposite Page)
1 = .125" [3.18 mm] Clearance Hole
2 = #4-40 Threaded Insert
4 = No Mounting
5 = Raised, .125" [3.18 mm] Clearance Hole
6 = Raised, #4-40 Threaded Insert

TERMINATION TYPE (See Opposite Page)
LOOP BELLOWS
R = .025" [0.64 mm] Round
W = .025" [0.64 mm] Square

** See Pages 142-143 for Specifications and other Variations

DIMENSIONS Dimensions in [ ] are in millimeters, all others are in inches.



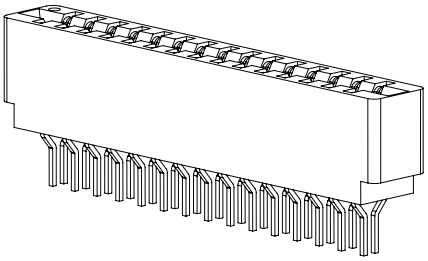
POSITIONS/ CONTACTS	INCHES						MILLIMETERS					
	A±.008	B±.008	C±.015	D±.010	E±.020	F±.015	A±0.20	B±0.20	C±0.38	D±0.25	E±0.51	F±0.38
06/12	0.780	1.102	1.221	1.534	1.784	1.030	19.81	27.99	31.01	38.96	45.31	26.16
08/16	1.092	1.414	1.533	1.846	2.096	1.342	27.74	35.92	38.94	46.89	53.24	34.09
10/20	1.404	1.726	1.845	2.158	2.408	1.654	35.66	43.84	46.86	54.81	61.16	42.01
12/24	1.716	2.038	2.157	2.470	2.720	1.966	43.59	51.77	54.79	62.74	69.09	49.94
15/30	2.184	2.506	2.625	2.938	3.188	2.434	55.47	63.65	66.68	74.63	80.98	61.82
18/36	2.652	2.974	3.093	3.406	3.656	2.902	67.36	75.54	78.56	86.51	92.86	73.71
20/40*	2.964	3.286	3.405	3.718	3.968	3.214	75.29	83.46	86.49	94.44	100.79	81.64
22/44	3.276	3.598	3.717	4.030	4.280	3.526	83.21	91.39	94.41	102.36	108.71	89.56
24/48	3.588	3.910	4.029	4.342	4.592	3.838	91.14	99.31	102.34	110.29	116.64	97.49
25/50	3.744	4.066	4.185	4.498	4.748	3.994	95.10	103.28	106.30	114.25	120.60	101.45
28/56	4.212	4.534	4.653	4.966	5.216	4.462	106.98	115.16	118.19	126.14	132.49	113.33
30/60	4.524	4.846	4.965	5.278	5.528	4.774	114.91	123.09	126.11	134.06	140.41	121.26
31/62	4.680	5.002	5.121	5.434	5.684	4.930	118.87	127.05	130.07	138.02	144.37	125.22
36/72	5.460	5.782	5.901	6.214	6.464	5.710	138.68	146.86	149.89	157.84	164.19	145.03
40/80	6.084	6.406	6.525	6.838	7.088	6.334	154.53	162.71	165.74	173.69	180.04	160.88
43/86	6.552	6.874	6.993	7.306	7.556	6.802	166.42	174.60	177.62	185.57	191.92	172.77

* Consult factory for availability.

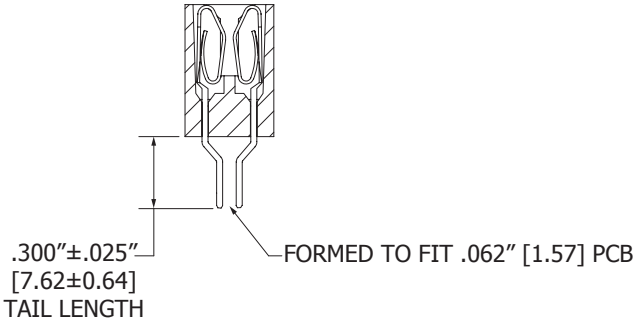
.156" [3.96 mm] Contact Centers, .550" [13.97 mm] Insulator Height, .025" [0.64 mm] Square Card Extender

SPECIFICATIONS

- Accommodates .062" ± .008" [1.57 mm ± 0.20 mm] PC Board
- Insulator Material available in PBT, PPS, or PA9T
- 3 Amps current rating for one contact energized
- Insulator / Contact Specifications and Part Number Options See opposite page
- P/N 04-0004-000 for In Between Contact Polarizing Key See Page 186 (Sold Separately)
- Molded-in Key Available - Consult Factory

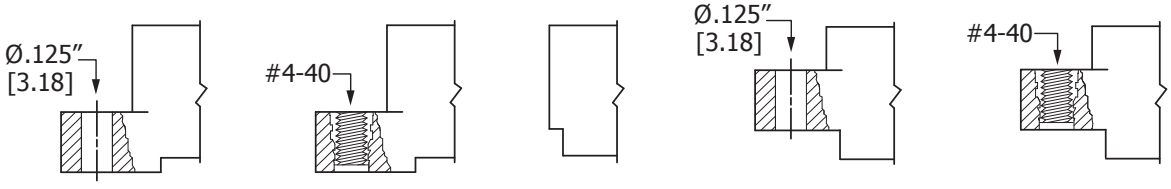


TERMINATION TYPE



Example P/N: MPSL-0156-10-DWE-4KTT

MOUNTING STYLE



(STYLE 1) **(STYLE 2)** **(STYLE 4)** **(STYLE 5)** **(STYLE 6)**

.156" [3.96 mm] Contact Centers, .550" [13.97 mm] Insulator Height, .025" [0.64 mm] Square Card Extender

PART NUMBER OPTIONS

MPSL - 0 156 - 10 - D WE - 4 K TT

PLATING - RoHS Compliant
All Platings are Lead Free and have .000050" Nickel Underplate

	Contact Surface	Termination
*MPSL =	.000010" Gold	.000100" Pure Tin, Matte
*MPL =	.000100" Overall Pure Tin, Matte	
MP =	.000010" Overall Gold	

***Requires 'K' Modification Code**
Refer to Page 142 for Operating/Processing Temperatures

INSULATOR MATERIAL**
0 = PBT

CONTACT CENTERS
156 = .156" [3.96 mm]

NUMBER OF POSITIONS
Contacts Per Row (See Position Chart Below)

MODIFICATION CODE**
TT = No Standoffs

PLATING MODIFICATION CODE**
K = Required on MPSL or MPL Plating
Omit for MP Plating (Overall Gold)

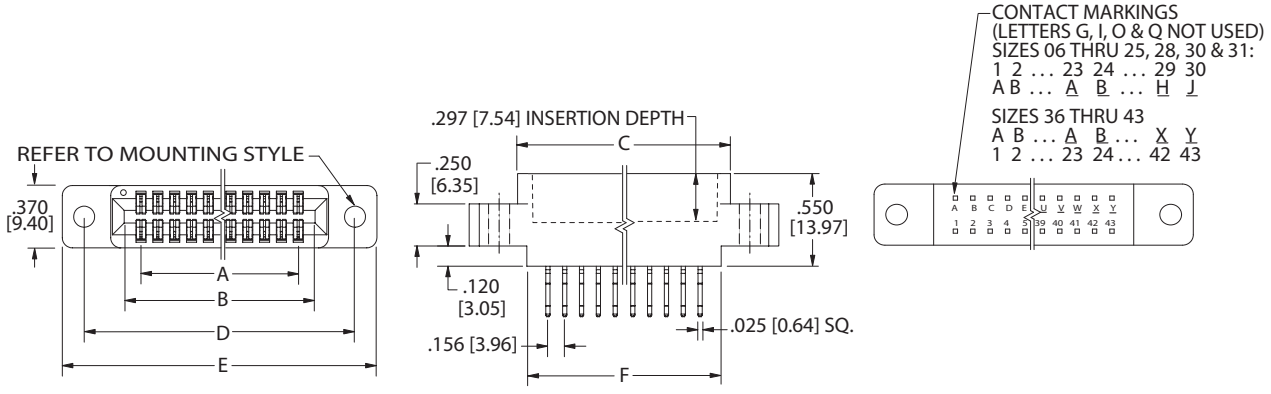
MOUNTING STYLE (See Opposite Page)
1 = .125" [3.18 mm] Clearance Hole
2 = #4-40 Threaded Insert
4 = No Mounting
5 = Raised, .125" [3.18 mm] Clearance Hole
6 = Raised, #4-40 Threaded Insert

TERMINATION TYPE (See Opposite Page)
WE = Card Extender

READOUT
D = Dual

** See Pages 142-143 for Specifications and other Variations

DIMENSIONS Dimensions in [ ] are in millimeters, all others are in inches.



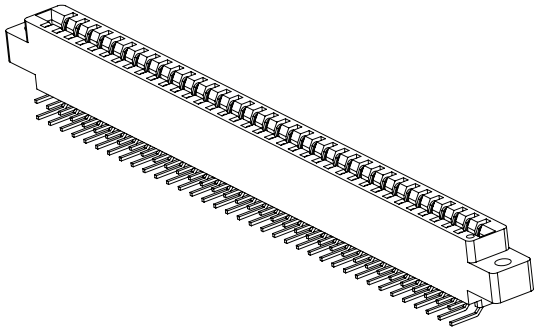
POSITIONS/ CONTACTS	INCHES						MILLIMETERS					
	A±.008	B±.008	C±.015	D±.010	E±.020	F±.015	A±0.20	B±0.20	C±0.38	D±0.25	E±0.51	F±0.38
06/12	0.780	1.102	1.221	1.534	1.784	1.030	19.81	27.99	31.01	38.96	45.31	26.16
08/16	1.092	1.414	1.533	1.846	2.096	1.342	27.74	35.92	38.94	46.89	53.24	34.09
10/20	1.404	1.726	1.845	2.158	2.408	1.654	35.66	43.84	46.86	54.81	61.16	42.01
12/24	1.716	2.038	2.157	2.470	2.720	1.966	43.59	51.77	54.79	62.74	69.09	49.94
15/30	2.184	2.506	2.625	2.938	3.188	2.434	55.47	63.65	66.68	74.63	80.98	61.82
18/36	2.652	2.974	3.093	3.406	3.656	2.902	67.36	75.54	78.56	86.51	92.86	73.71
20/40*	2.964	3.286	3.405	3.718	3.968	3.214	75.29	83.46	86.49	94.44	100.79	81.64
22/44	3.276	3.598	3.717	4.030	4.280	3.526	83.21	91.39	94.41	102.36	108.71	89.56
24/48	3.588	3.910	4.029	4.342	4.592	3.838	91.14	99.31	102.34	110.29	116.64	97.49
25/50	3.744	4.066	4.185	4.498	4.748	3.994	95.10	103.28	106.30	114.25	120.60	101.45
28/56	4.212	4.534	4.653	4.966	5.216	4.462	106.98	115.16	118.19	126.14	132.49	113.33
30/60	4.524	4.846	4.965	5.278	5.528	4.774	114.91	123.09	126.11	134.06	140.41	121.26
31/62	4.680	5.002	5.121	5.434	5.684	4.930	118.87	127.05	130.07	138.02	144.37	125.22
36/72	5.460	5.782	5.901	6.214	6.464	5.710	138.68	146.86	149.89	157.84	164.19	145.03
40/80	6.084	6.406	6.525	6.838	7.088	6.334	154.53	162.71	165.74	173.69	180.04	160.88
43/86	6.552	6.874	6.993	7.306	7.556	6.802	166.42	174.60	177.62	185.57	191.92	172.77

* Consult factory for availability.

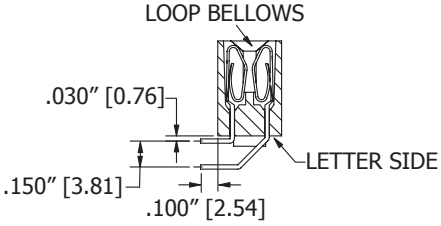
.156" [3.96 mm] Contact Centers, .610" [15.49 mm] Insulator Height, Right Angle

SPECIFICATIONS

- Accommodates .062" ± .008" [1.57 mm ± 0.20 mm] PC Board
- Insulator Material available in PBT, PPS, or PA9T
- 3 Amps current rating for one contact energized
- Insulator / Contact Specifications and Part Number Options See Opposite Page
- P/N 04-0004-000 for In Between Contact Polarizing Key See Page 186 (Sold Separately)
- Molded-in Key Available - Consult Factory

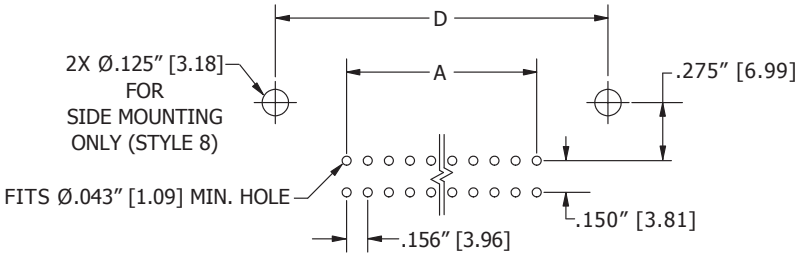


TERMINATION TYPE

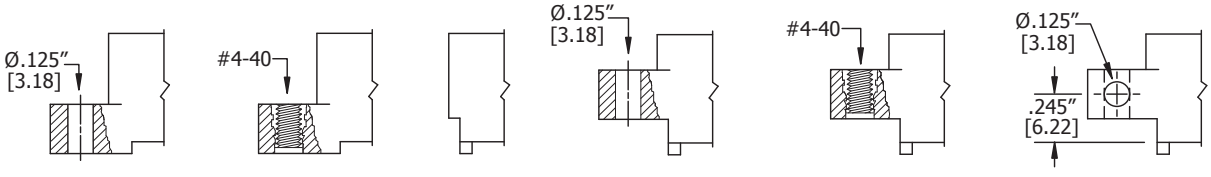


Example P/N: MP-0156-10-DW-1R

PCB LAYOUT



MOUNTING STYLE



(STYLE 1) **(STYLE 2)** **(STYLE 4)** **(STYLE 5)** **(STYLE 6)** **(STYLE 8)**

.156" [3.96 mm] Contact Centers, .610" [15.49 mm] Insulator Height, Right Angle

PART NUMBER OPTIONS

MPSL - 0 156 - 10 - D W - 1 K R

PLATING - RoHS Compliant
All Platings are Lead Free and have .000050" Nickel Underplate

	Contact Surface	Termination
*MPSL =	.000010" Gold	.000100" Pure Tin, Matte
*MPL =	.000100" Overall Pure Tin, Matte	
MP =	.000010" Overall Gold	

***Requires 'K' Modification Code**
Refer to Page 142 for Operating/Processing Temperatures

INSULATOR MATERIAL**
0 = PBT

CONTACT CENTERS
156 = .156" [3.96 mm]

NUMBER OF POSITIONS
Contacts Per Row (See Position Chart Below)

READOUT
D = Dual

MODIFICATION CODE**
R = Right Angle

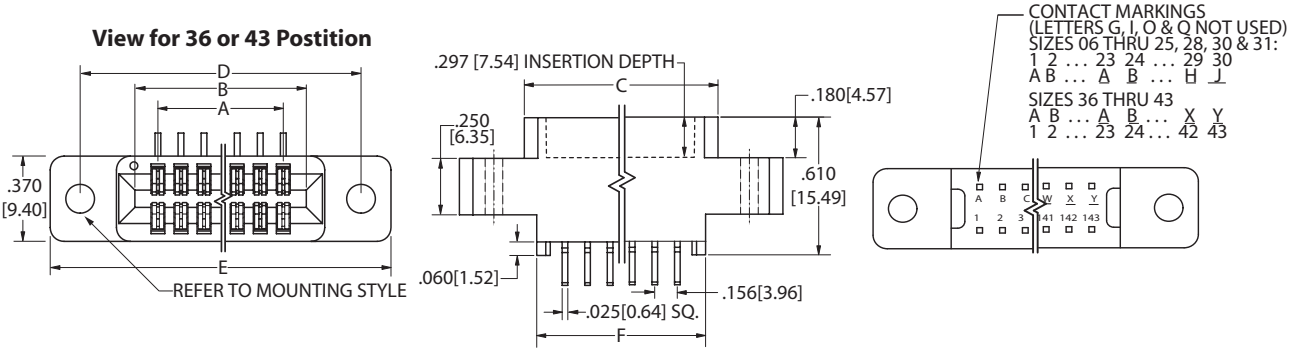
PLATING MODIFICATION CODE**
K = Required on MPSL or MPL Plating
Omit for MP Plating (Overall Gold)

MOUNTING STYLE (See Opposite Page)
1 = .125" [3.18 mm] Clearance Hole
2 = #4-40 Threaded Insert
4 = No Mounting
5 = Raised, .125" [3.18 mm] Clearance Hole
6 = Raised, #4-40 Threaded Insert
8 = Raised, Side Mounting, .125" [3.18 mm] Clearance Hole

TERMINATION TYPE
LOOP BELLOWS
W = .025" [0.64 mm] Square

** See Pages 142-143 for Specifications and other Variations

DIMENSIONS Dimensions in [ ] are in millimeters, all others are in inches.



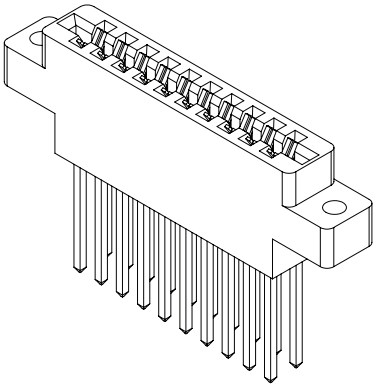
POSITIONS/ CONTACTS	INCHES						MILLIMETERS					
	A±.008	B±.008	C±.015	D±.010	E±.020	F±.015	A±0.20	B±0.20	C±0.38	D±0.25	E±0.51	F±0.38
06/12	0.780	1.102	1.221	1.534	1.784	1.030	19.81	27.99	31.01	38.96	45.31	26.16
08/16	1.092	1.414	1.533	1.846	2.096	1.342	27.74	35.92	38.94	46.89	53.24	34.09
10/20	1.404	1.726	1.845	2.158	2.408	1.654	35.66	43.84	46.86	54.81	61.16	42.01
12/24	1.716	2.038	2.157	2.470	2.720	1.966	43.59	51.77	54.79	62.74	69.09	49.94
15/30	2.184	2.506	2.625	2.938	3.188	2.434	55.47	63.65	66.68	74.63	80.98	61.82
18/36	2.652	2.974	3.093	3.406	3.656	2.902	67.36	75.54	78.56	86.51	92.86	73.71
20/40*	2.964	3.286	3.405	3.718	3.968	3.214	75.29	83.46	86.49	94.44	100.79	81.64
22/44	3.276	3.598	3.717	4.030	4.280	3.526	83.21	91.39	94.41	102.36	108.71	89.56
24/48	3.588	3.910	4.029	4.342	4.592	3.838	91.14	99.31	102.34	110.29	116.64	97.49
25/50	3.744	4.066	4.185	4.498	4.748	3.994	95.10	103.28	106.30	114.25	120.60	101.45
28/56	4.212	4.534	4.653	4.966	5.216	4.462	106.98	115.16	118.19	126.14	132.49	113.33
30/60	4.524	4.846	4.965	5.278	5.528	4.774	114.91	123.09	126.11	134.06	140.41	121.26
31/62	4.680	5.002	5.121	5.434	5.684	4.930	118.87	127.05	130.07	138.02	144.37	125.22
36/72	5.460	5.782	5.901	6.214	6.464	5.710	138.68	146.86	149.89	157.84	164.19	145.03
40/80	6.084	6.406	6.525	6.838	7.088	6.334	154.53	162.71	165.74	173.69	180.04	160.88
43/86	6.552	6.874	6.993	7.306	7.556	6.802	166.42	174.60	177.62	185.57	191.92	172.77

* Consult factory for availability.

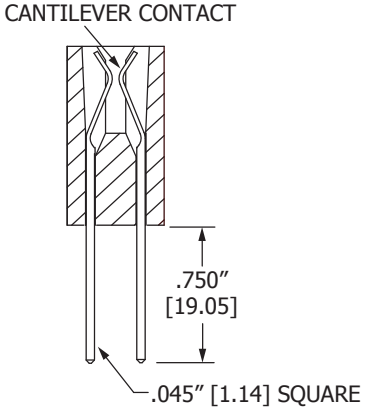
.156" [3.96 mm] Contact Centers, .720" [18.29 mm] Insulator Height, .045" [1.14 mm] Square Wire Wrap

SPECIFICATIONS

- Accommodates .062" ± .008" [1.57 mm ± 0.20 mm] PC Board
- Insulator Material available in PBT, PPS, or PA9T
- 3 Amps current rating per contact for contacts fully energized (for 5 Amps application, consult factory)
- Insulator / Contact Specifications and Part Number Options See Opposite Page
- Molded-in Key Available - Consult Factory



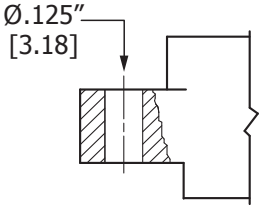
TERMINATION TYPE



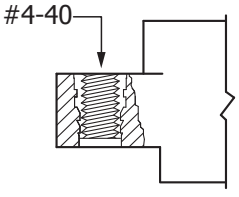
Example P/N: MPSL-0156-10-DFS-1K

MOUNTING STYLE

(STYLE 4)



(STYLE 5)



(STYLE 6)

.156" [3.96 mm] Contact Centers, .720" [18.29 mm] Insulator Height, .045" [1.14 mm] Square Wire Wrap

PART NUMBER OPTIONS

MPSL - 0 156 - 10 - D FS - 4 K

PLATING - RoHS Compliant
All Platings are Lead Free and have .000050" Nickel Underplate

	Contact Surface	Termination
*MPSL =	.000010" Gold	.000100" Pure Tin, Matte
*MPL =	.000100" Overall Pure Tin, Matte	
MP =	.000010" Overall Gold	

***Requires 'K' Modification Code**
Other Plating and thicknesses available upon request
Refer to Page 142 for Operating/Processing Temperatures

INSULATOR MATERIAL**
0 = PBT

CONTACT CENTERS
156 = .156" [3.96 mm]

NUMBER OF POSITIONS
Contacts Per Row (See Position Chart Below)

READOUT
D = Dual

TERMINATION TYPE (See Opposite Page)
FS = .045" [1.14 mm] Square Contacts

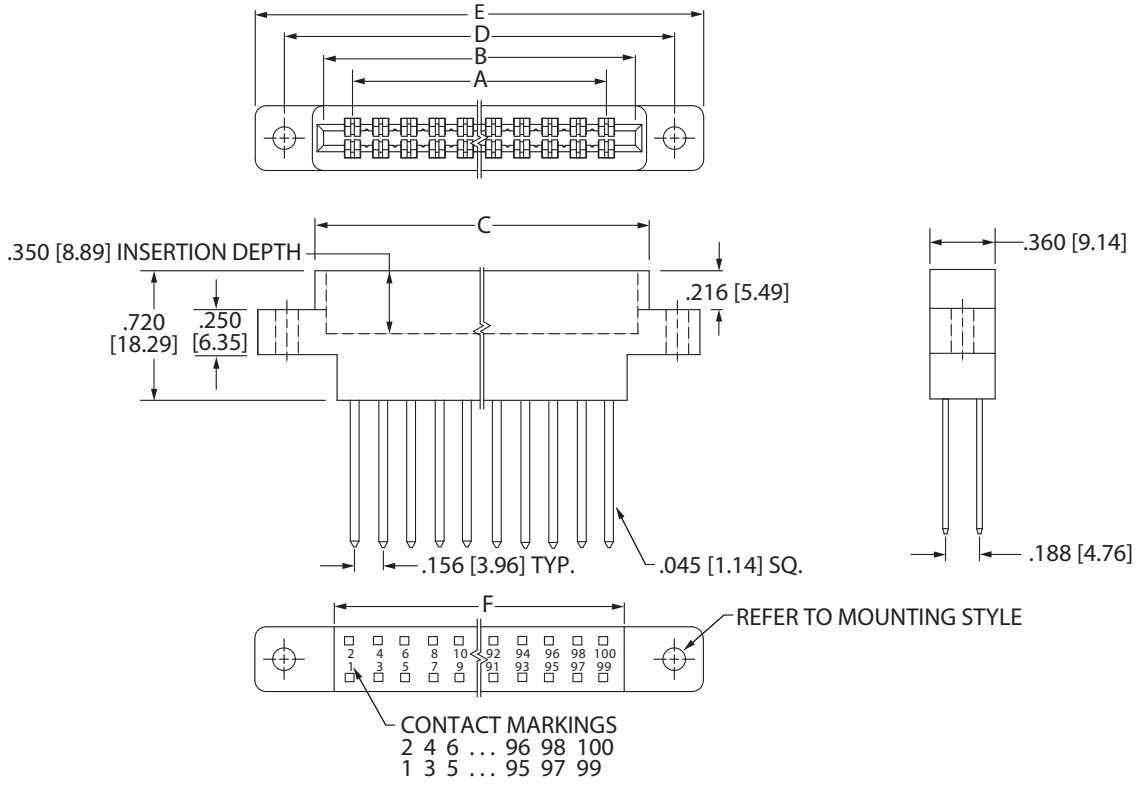
MOUNTING STYLE (See Opposite Page)
4 = No Mounting
5 = Raised, .125" [3.18 mm] Clearance Hole
6 = Raised, #4-40 Threaded Insert

PLATING MODIFICATION CODE**
K = Required on MPSL or MPL Plating
Omit for MP Plating (Overall Gold)

MODIFICATION CODE**

** See Pages 142-143 for Specifications and other Variations

DIMENSIONS Dimensions in [ ] are in millimeters, all others are in inches.

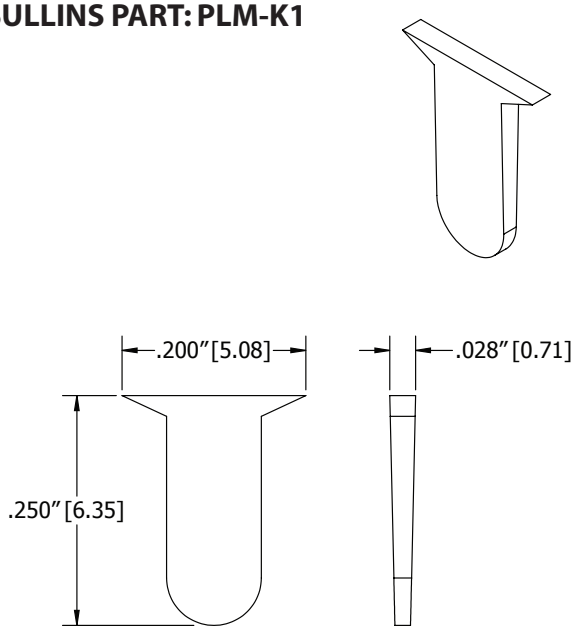


POSITIONS/ CONTACTS	INCHES						MILLIMETERS					
	A±.008	B±.008	C±.015	D±.010	E±.020	F±.015	A±0.20	B±0.20	C±0.38	D±0.25	E±0.51	F±0.38
10/20	1.404	1.724	1.848	2.158	2.408	1.604	35.66	43.79	46.94	54.81	61.16	40.74
12/24	1.716	2.036	2.160	2.470	2.720	1.916	43.59	51.71	54.86	62.74	69.09	48.67
15/30	2.184	2.504	2.628	2.938	3.188	2.384	55.47	63.60	66.75	74.63	80.98	60.55
18/36	2.652	2.972	3.096	3.406	3.656	2.852	67.36	75.49	78.64	86.51	92.86	72.44
22/44	3.276	3.596	3.720	4.030	4.280	3.476	83.21	91.34	94.49	102.36	108.71	88.29
25/50	3.744	4.064	4.188	4.498	4.748	3.944	95.10	103.23	106.38	114.25	120.60	100.18
28/56	4.212	4.532	4.656	4.966	5.216	4.412	106.98	115.11	118.26	126.14	132.49	112.06
30/60	4.524	4.844	4.968	5.278	5.528	4.724	114.91	123.04	126.19	134.06	140.41	119.99
36/72	5.460	5.780	5.904	6.214	6.464	5.660	138.68	146.81	149.96	157.84	164.19	143.76
43/86	6.552	6.872	6.996	7.306	7.556	6.752	166.42	174.55	177.70	185.57	191.92	171.50

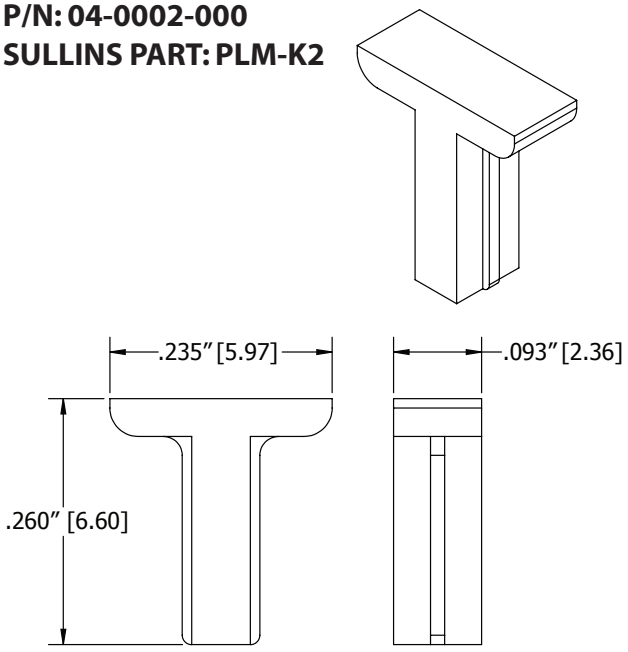
Polarizing Keys
In Between Contact & In Contact

ALL KEYS ORDERED SEPARATELY

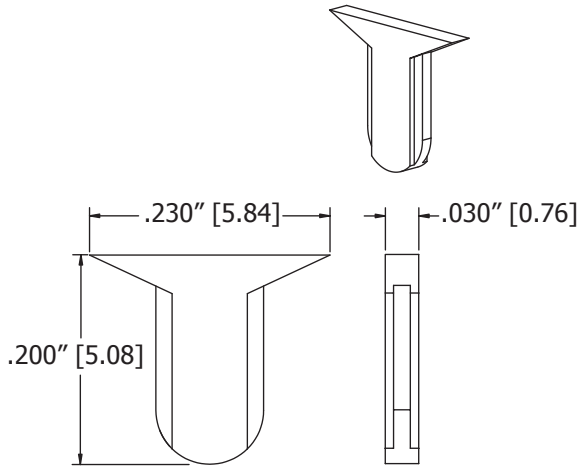
IN BETWEEN CONTACT KEY
P/N: 04-0001-000
SULLINS PART: PLM-K1



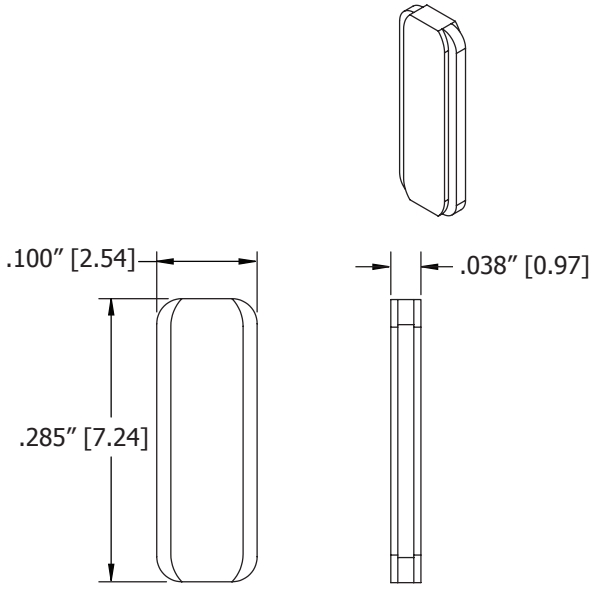
IN CONTACT KEY
P/N: 04-0002-000
SULLINS PART: PLM-K2



IN BETWEEN CONTACT KEY
P/N: 04-0003-000
SULLINS PART: PLA-K1



IN BETWEEN CONTACT KEY
P/N: 04-0004-000
SULLINS PART: PLC-K1



HOW TO LOCATE YOUR P/N:

Simply use your part number to find the correct pages containing specifications about your connector in this catalog.
The underscore sign (_) is a variable representing design variations in the part number coding.

EXAMPLE: to find p/n EBA10DCAS, go to **_ _ A _ _ DCA _ , pages 68-69**
For Micro Plastics P/N's (beginning with EMP or MP) go to last page in index.

SULLINS CARD EDGE & HEADERS

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_ _ B91DHB _ -S621	26-27
_ _ B91DHF _ -S578	24-25
_ _ B91DHF _ -S621	24-25
_ _ B91DHH _ -S578	24-25
_ _ B91DHH _ -S621	24-25
_ _ B91DHL _ -S578	24-25
_ _ B91DHL _ -S621	24-25
_ _ B91DHN _ -S578	24-25
_ _ B91DHN _ -S621	24-25
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_ _ B92DHB _ -S250	30-31
_ _ B92DHB _ -S329	30-31
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_ _ B92DHF _ -S329	28-29
_ _ B92DHF _ -S330	28-29
_ _ B92DHF _ -S378	28-29
_ _ B92DHH _ -S250	28-29
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_ _ B92DHH _ -S330	28-29
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_ MC _ _ DAF _ -M500	112-113
_ _ C _ _ DAG _	112-113
_ MC _ _ DAG _ -M500	112-113
_ _ C _ _ DAH _	112-113
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_ _ _C 0 _ _ DABN-RC	114-115
_ _ _C 0 _ _ DABN-M30RC	116-117
_ _ _C 0 _ _ DACN-RC	114-115
_ _ _C 0 _ _ DADN-RC	114-115
_ _ _C 0 _ _ DAEN-RC	114-115
_ _ _C 0 _ _ DAFN-RC	114-115
_ _ _C 0 _ _ DAGN-RC	114-115
_ _ _C 0 _ _ DAHN-RC	114-115
_ _ _C 0 _ _ DAIN-RC	114-115
_ _ _C 0 _ _ DAJN-RC	114-115
_ _ _C 0 _ _ DAKN-RC	114-115
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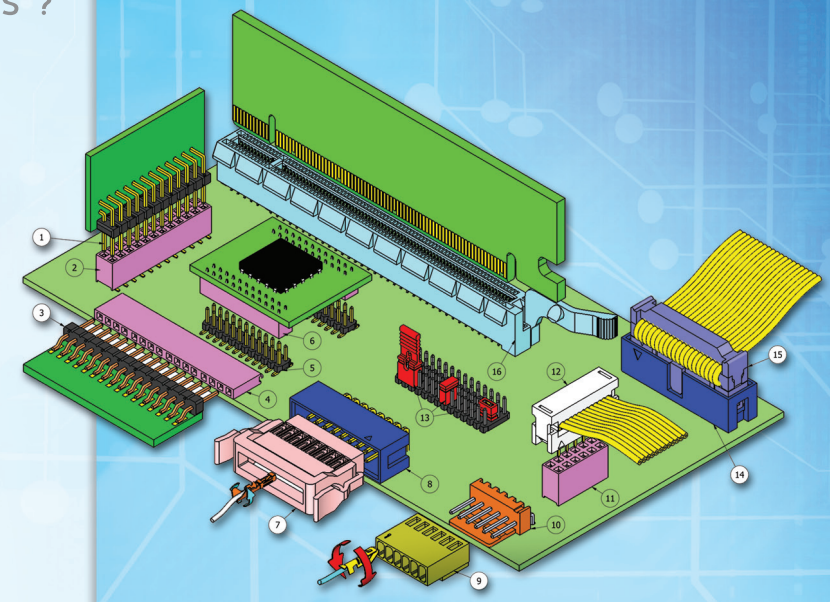

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7	Custom Wire Housing & Terminal
8,14	Box Header
9	Wire-to-board Housing & Terminal
10	Wafer Header
12	IDC Dip Plug
13	Shunt
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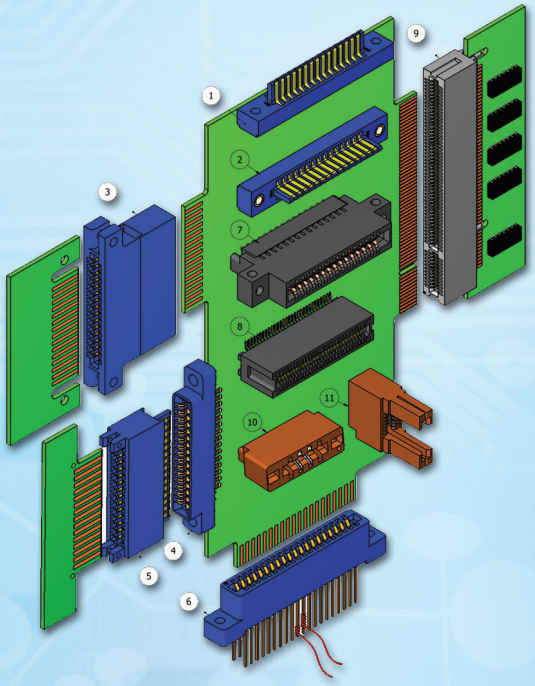

1,2,3,4,5,6	Card Edge Connector
7,8,9	High Density Card Edge Connector
10,11	Custom Connector

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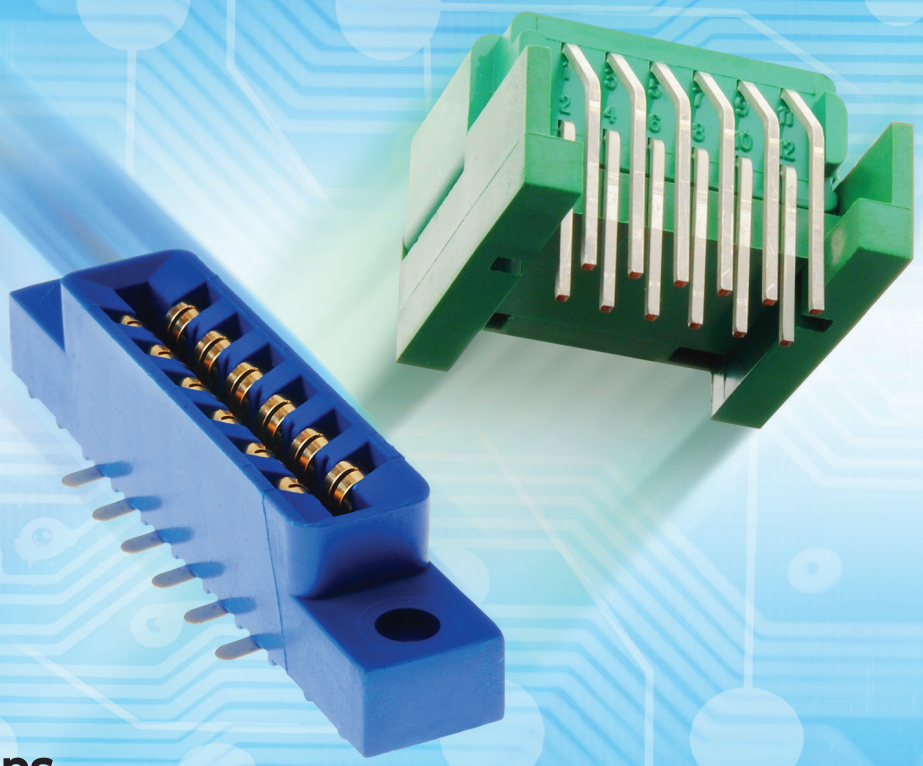

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