GENERAL SPECIFICATIONS

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

In2Connect UK Ltd
Tel: +44(0)1962 773004
Fax: +44(0)1962 600034
Sales@in2connect.uk.com

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

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
MR, MN = Card Extender
MM = Wire Wrap
MA, MD, MJ, MK, MV, & MB = Right Angle

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

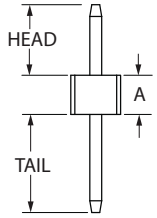
See page 139 for Micro Plastics brand part number options. Specifications are subject to change without notice.

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

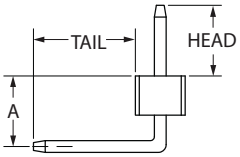
SPECIFICATIONS

- 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



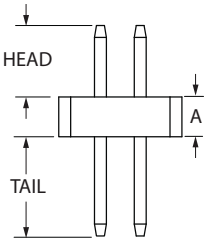
Straight, (ST)



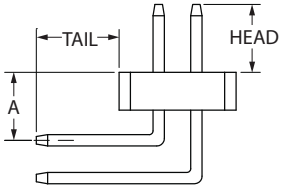
Right Angle, (RA)

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"]



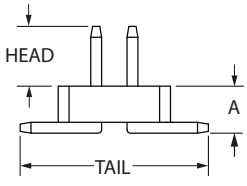
Straight, (ST)



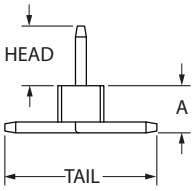
Right Angle, (RA)

DUAL ROW

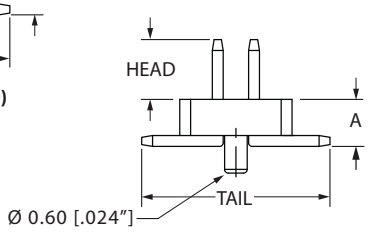
EXAMPLE P/N	HEAD	TAIL	A
STRAIGHT TERMINATIONS			
SMH100-LPPE-D10-ST-BK	1.80 [.071"]	2.50 [.098"]	1.00 [.039"]
SMH150-LPPE-D10-ST-BK	1.80 [.071"]	2.50 [.098"]	1.50 [.059"]
RIGHT ANGLE TERMINATION			
SMH100-LPPE-D10-RA-BK	1.80 [.071"]	2.60 [.102"]	1.80 [.071"]



SMT Without Guide Posts, (SM)



SMT, (SC) or (SD)



SMT With Guide Posts, (SP)

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

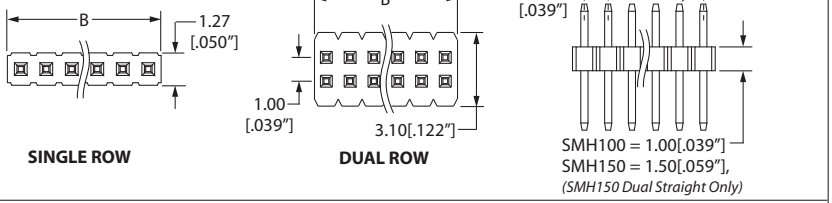
TERMINATION TYPE (See Opposite Page)
ST = Straight (Single & Dual Row)
RA = Right Angle (Single & Dual Row)
SC = Surface Mount, Standard (Single Row)
SD = Surface Mount, Opposite Bend, Applicable on Even Pin Counts (Single Row)
SM = Surface Mount without Guide Posts (Dual Row)
SP = Surface Mount with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

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

NUMBER OF ROWS
S = Single Row
D = Dual Row

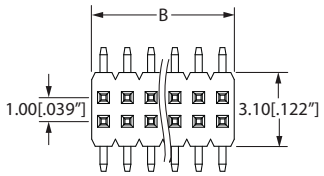
DIMENSIONS

STRAIGHT (SHOWN) & RIGHT ANGLE

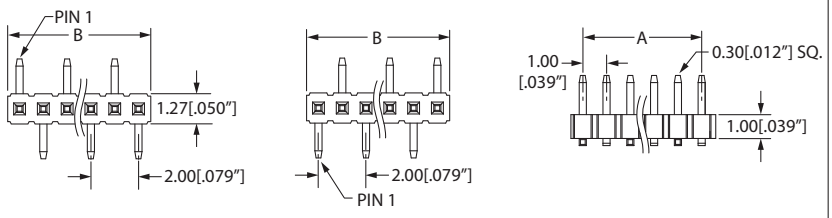


SINGLE ROW — DUAL ROW

SURFACE MOUNT, DUAL ROW

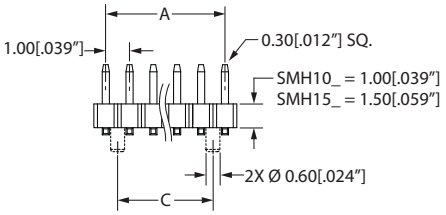


SURFACE MOUNT, SINGLE ROW



(SC) STANDARD

(SD) OPPOSITE BEND, APPLICABLE ON EVEN PIN COUNTS



OPTIONAL GUIDE POSTS REQUIRES (SP) TERMINATION TYPE

POSITIONS	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

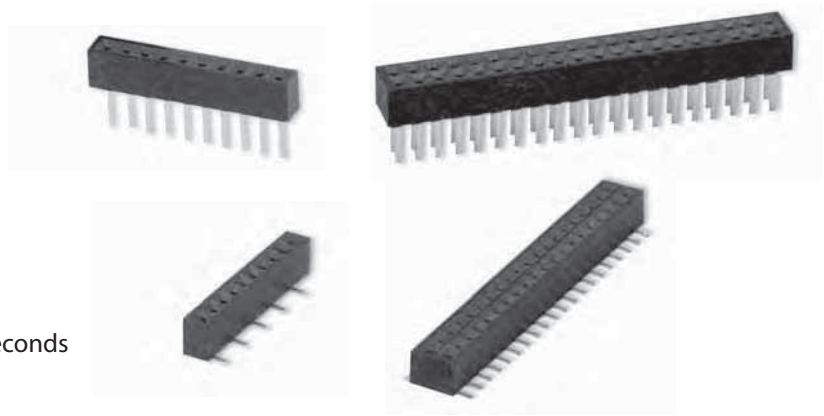
POSITIONS	NUMBER OF CONTACTS SINGLE/DUAL	A		B		C	
		mm	in	mm	in	mm	in
27	27/54	26.00	1.024	27.00	1.063	25.00	0.984
28	28/56	27.00	1.063	28.00	1.102	26.00	1.024
29	29/58	28.00	1.102	29.00	1.142	27.00	1.063
30	30/60	29.00	1.142	30.00	1.181	28.00	1.102
31	31/62	30.00	1.181	31.00	1.220	29.00	1.142
32	32/64	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.

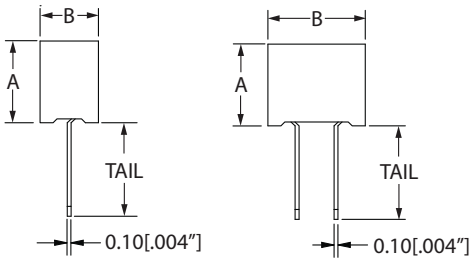
1.00 mm [.039"] Contact Centers, Female Headers, Straight/SMT- SFM Series
Mates with SMH series

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



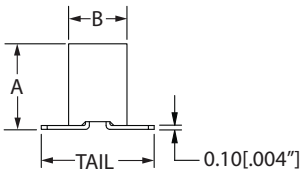
TERMINATION TYPE



Single Row, Straight, (ST) | **Dual Row, Straight, (ST)**

STRAIGHT

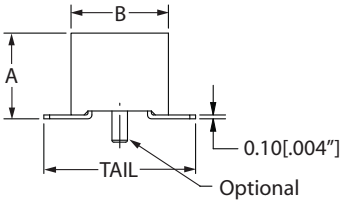
EXAMPLE P/N	A	B	TAIL
SINGLE ROW			
SFM210-LPPE-S10-ST-BK	2.10 [.083"]	1.50 [.059"]	2.40 [.094"]
DUAL ROW			
SFM210-LPPE-D10-ST-BK	2.10 [.083"]	2.50 [.098"]	2.40 [.094"]



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

SURFACE MOUNT

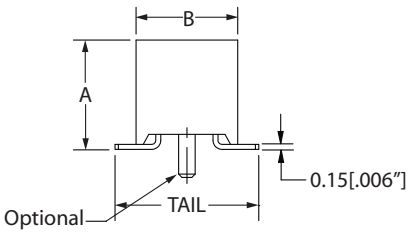
EXAMPLE P/N	A	B	TAIL
SINGLE ROW			
SFM210-LPPE-S10-SC-BK	2.20 [.087"]	1.50 [.059"]	2.90 [.114"]
SFM210-LPPE-S10-SD-BK	2.20 [.087"]	1.50 [.059"]	2.90 [.114"]



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"]

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"]

NUMBER OF ROWS
S = Single Row
D = Dual Row

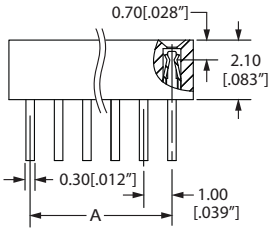
NUMBER OF CONTACT POSITIONS (Pins per Row)
02 thru 50

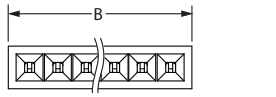
TERMINATION TYPE (See Opposite Page)
ST = Straight (Single & Dual Row)
SC = Surface Mount, Standard (Single Row)
SD = Surface Mount, Opposite Bend, Applicable on Even Pin Counts (Single Row)
SM = Surface Mount without Guide Posts (Dual Row)
SP = Surface Mount with Guide Posts (Dual Row)

COLOR
BK = Black

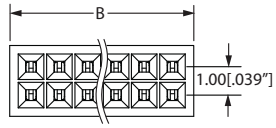
DIMENSIONS

STRAIGHT



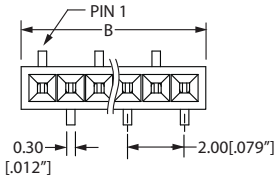


SINGLE ROW

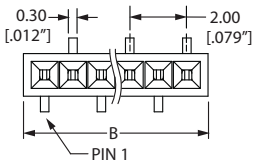


DUAL ROW

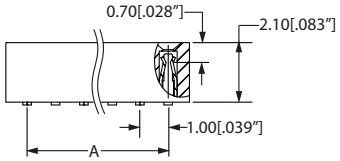
Surface Mount Top/Bottom Entry, Single Row



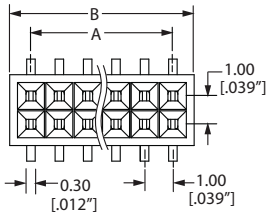
(SC) STANDARD

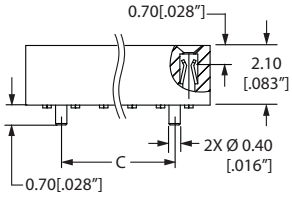


(SD) OPPOSITE BEND, APPLICABLE ON EVEN PIN COUNTS

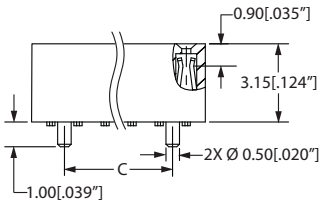


Surface Mount Top/Bottom Entry, Dual Row





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

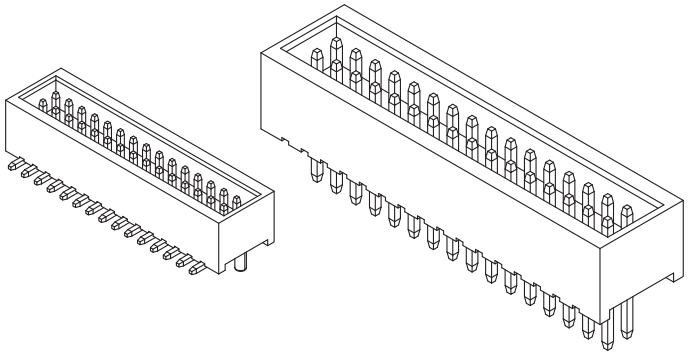
NUMBER OF CONTACTS SINGLE/ DUAL	A		B(SFM210)		B (SFM315)		C	
	mm	in	mm	in	mm	in	mm	in
27/54	26.00	1.024	27.50	1.083	27.40	1.079	25.00	0.984
28/56	27.00	1.063	28.50	1.122	28.40	1.118	26.00	1.024
29/58	28.00	1.102	29.50	1.161	29.40	1.157	27.00	1.063
30/60	29.00	1.142	30.50	1.201	30.40	1.197	28.00	1.102
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

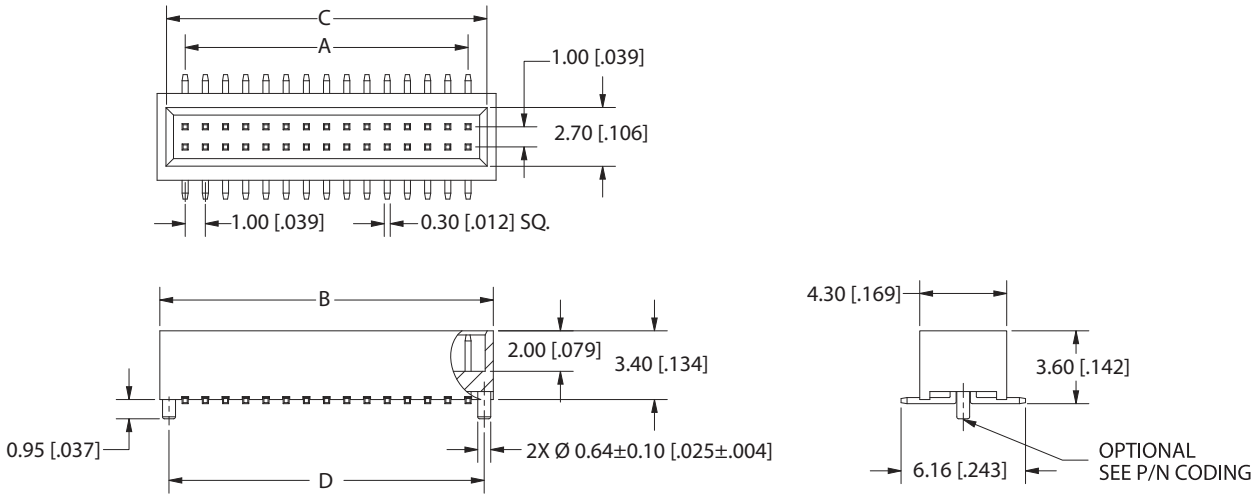
- Insulator Material: LCP
- Contact Material: Phosphor Bronze
- Operating Temperature: -40°C to +125°C
- Processing Temperature: 230°C Max. for 60 seconds
  (260°C Max. for 10 seconds)
- UL Flammability Rating: 94V-0
- Contact Resistance: 20 milli Ohms Max.
- Current Rating: 1 Amp
- Dielectric Withstanding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



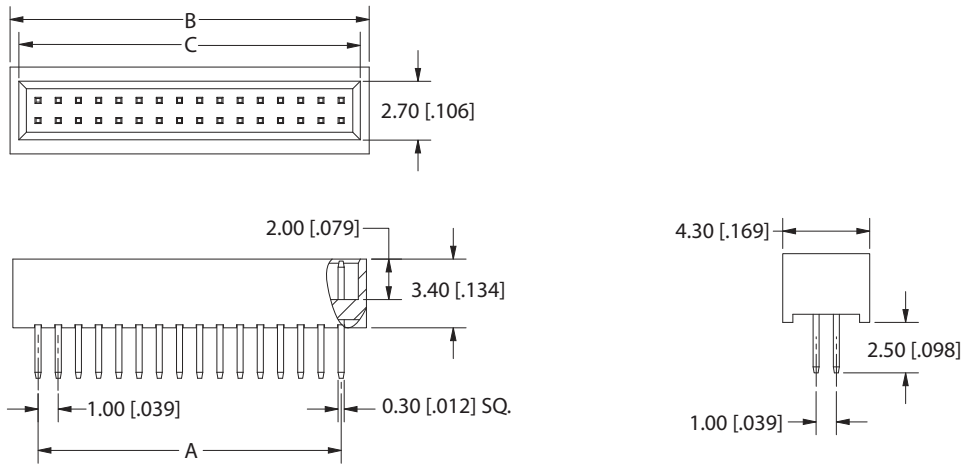
DIMENSIONS For complete drawings, go to www.sullinscorp.com or e-mail techsupport@sullinscorp.com

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

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"]

NUMBER OF ROWS
D = Dual Row

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

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

COLOR
BK = Black

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

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

SPECIFICATIONS

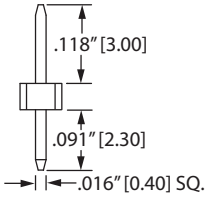
- Insulator Material: Nylon
- Contact Material: Brass
- Plating: Gold Flash Overall
- 1 Amp current rating
- UL Flammability Rating: 94V-0
- Stacker Options available - Consult factory

TERMINATION TYPE

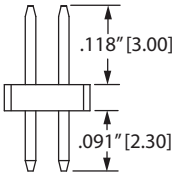
SINGLE READOUT

DUAL READOUT

STRAIGHT

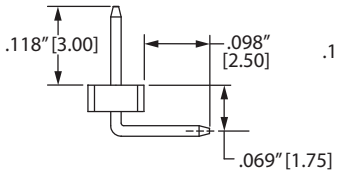


(VWVN)

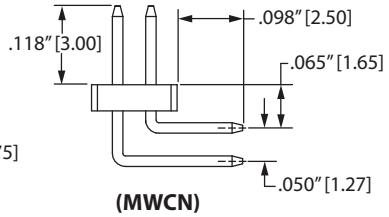


(VWVN)

RIGHT ANGLE

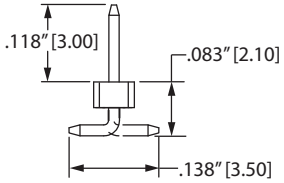


(VWCN)

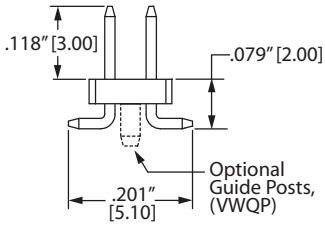


(MWCN)

SURFACE MOUNT (SMT)



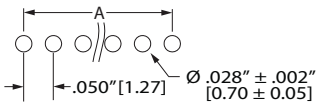
(VWTC, VWTD)



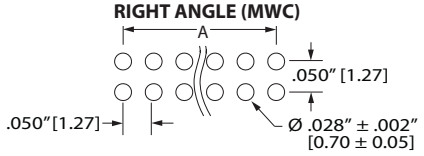
(VWQS), Without Guide Posts
(VWQP), With Guide Posts

PCB LAYOUT

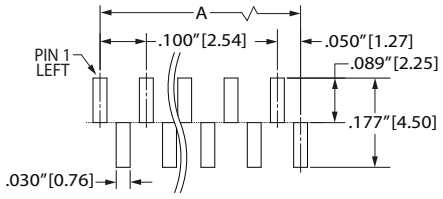
STRAIGHT (VWV)
RIGHT ANGLE (VWC)



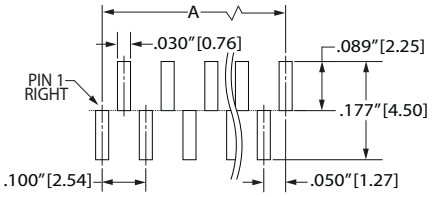
STRAIGHT (VWV)
RIGHT ANGLE (MWC)



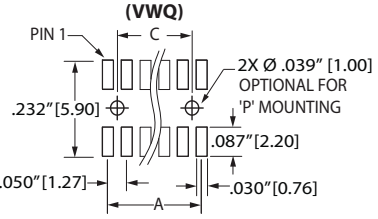
SURFACE MOUNT
PIN 1 LEFT (VWTC) STANDARD



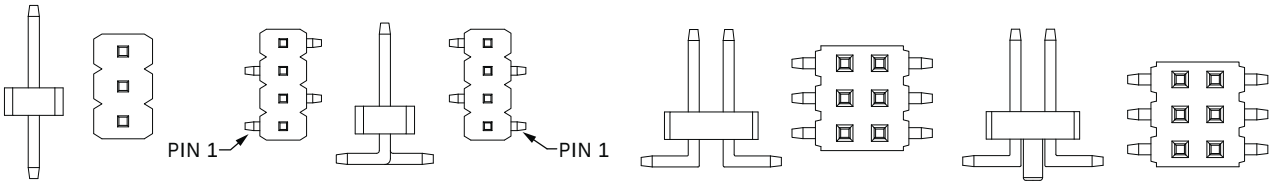
PIN 1 RIGHT (VWTD)



(VWQ)



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)

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

NUMBER OF ROWS
1 = Single Row
2 = Dual Row

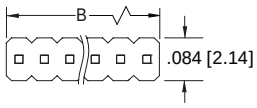
TERMINATION TYPE (Opposite Page)
VWV, VWC, MWC, VWT, VWQ

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)

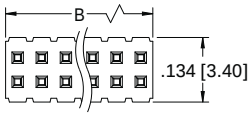
RoHS COMPLIANT
Consult Factory For Modifications

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

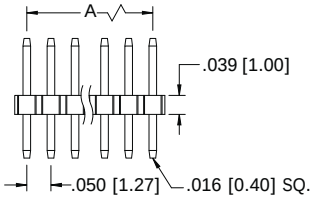
STRAIGHT (SHOWN) & RIGHT ANGLE



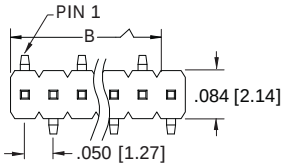
SINGLE ROW



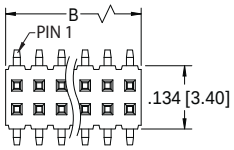
DUAL ROW



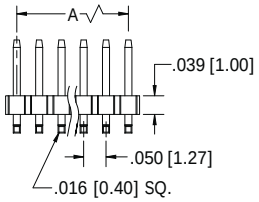
SURFACE MOUNT, PIN 1 LEFT, SINGLE ROW(SHOWN)



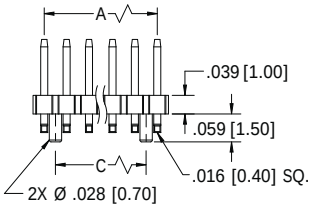
SURFACE MOUNT, DUAL ROW

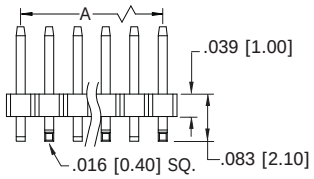


WITHOUT GUIDE POSTS, (VWQS)



WITH GUIDE POSTS, (VWQP)





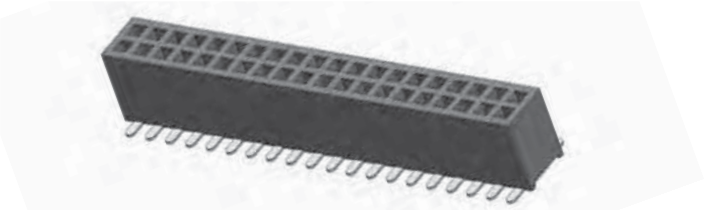
POSITIONS	NUMBER OF CONTACTS SINGLE/DUAL	A		B		C	
		in	mm	in	mm	in	mm
01	01/02	N/A	N/A	.050	1.27	N/A	
02	02/04	.050	1.27	.100	2.54		
03	03/06	.100	2.54	.150	3.81	.050	1.27
04	04/08	.150	3.81	.200	5.08	.100	2.54
05	05/10	.200	5.08	.250	6.35	.150	3.81
06	06/12	.250	6.35	.300	7.62	.200	5.08
07	07/14	.300	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

POSITIONS	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

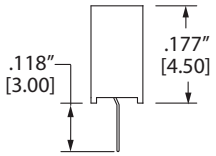
.050" [1.27 mm] Contact Centers, Female Headers, Straight/Right Angle/SMT

SPECIFICATIONS

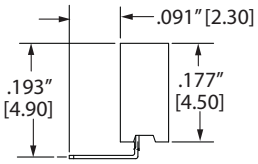
- Insulator Material: LCP
- Contact Material: Phosphor Bronze
- Plating: Gold Flash Overall
- 1 Amp current rating
- UL Flammability Rating: 94V-0



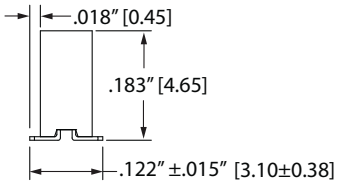
TERMINATION TYPE



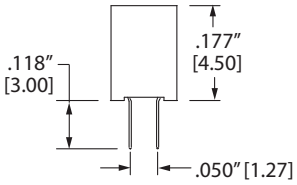
SINGLE ROW, STRAIGHT (NFFN)



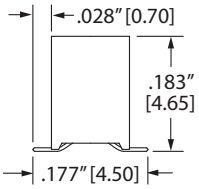
SINGLE ROW, RIGHT ANGLE (NGCN)



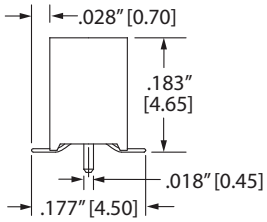
SINGLE ROW, SMT (NFSC, NFSD)



DUAL ROW, STRAIGHT (CFFN)

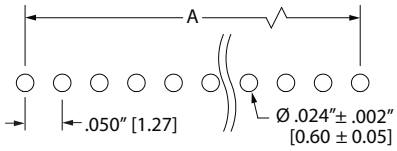


DUAL ROW, SMT Without Guide Posts (NFSS)

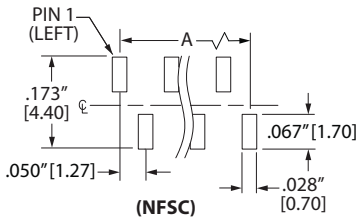


DUAL ROW, SMT With Guide Posts (NFSP)

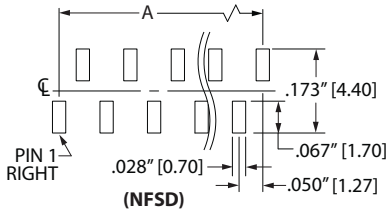
PCB LAYOUT



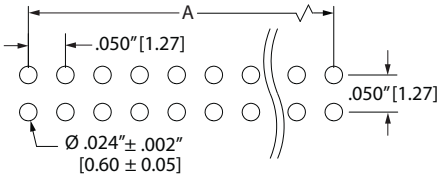
(NFFN, NGCN)



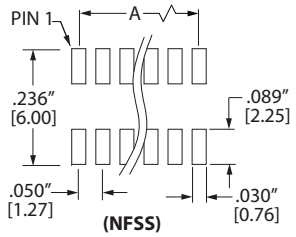
(NFSC)



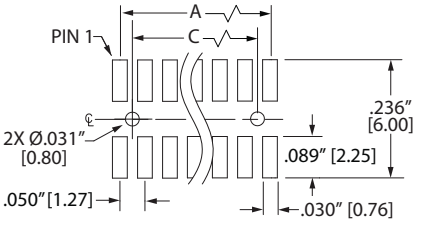
(NFSD)



(CFFN)

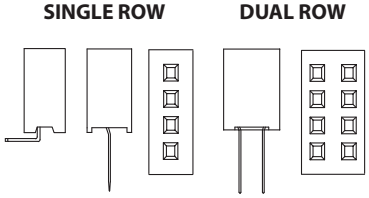


(NFSS)

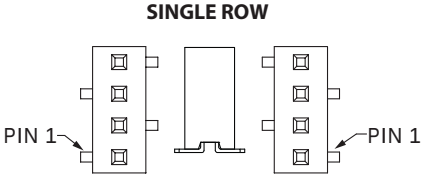


(NFSP)

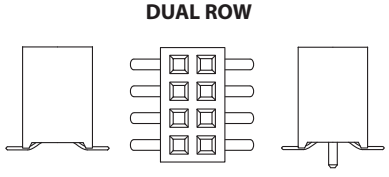
MOUNTING STYLE



NO MOUNTING (N)



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



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

NUMBER OF ROWS
1 = Single Row
2 = Dual Row

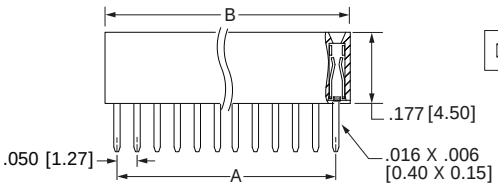
TERMINATION TYPE (See Opposite Page)
NFF, CFF, NGC, NFS

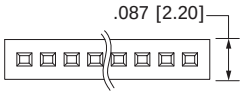
MOUNTING STYLE
N = No Mounting
C = Surface Mount, Pin 1 Left (Single Row Only)
D = Surface Mount, Pin 1 Right (Single Row Only)
S = Surface Mount without Guide Posts (Dual Row Only)
P = Surface Mount with Guide Posts (Dual Row Only)

RoHS COMPLIANT
Consult Factory For Modifications

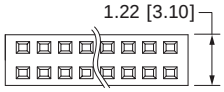
DIMENSIONS Dimensions in [ ] are in millimeters, all others are in inches.

STRAIGHT (shown) & RIGHT ANGLE

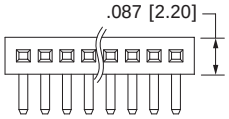




SINGLE ROW

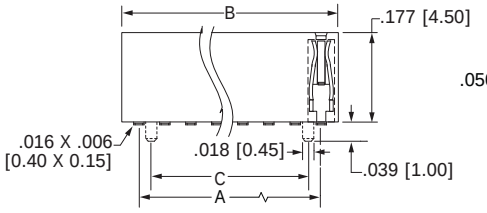


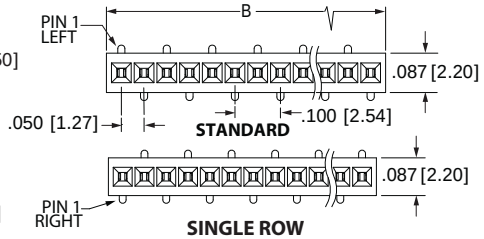
DUAL ROW



SINGLE ROW RIGHT ANGLE

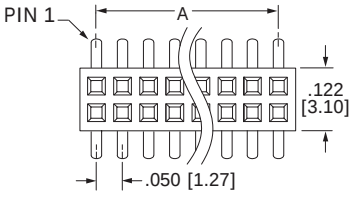
SMT with and without guide posts
(with guide posts shown- dual row only)





SINGLE ROW

OPPOSITE BEND, APPLICABLE ON EVEN PIN COUNT



DUAL ROW

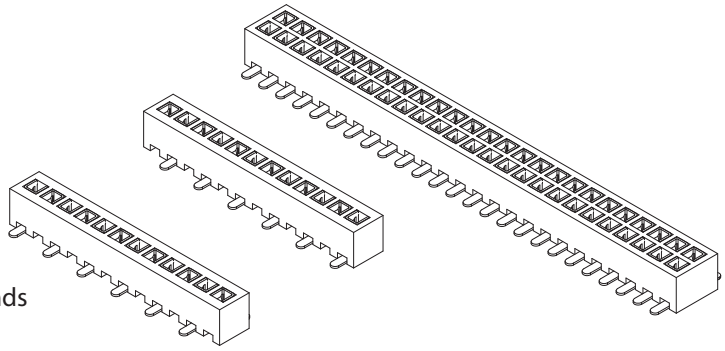
POSITIONS	NUMBER OF CONTACTS SINGLE/DUAL	A		B		C	
		in	mm	in	mm	in	mm
02	2/4	.050	1.27	0.116	2.94	N/A	
03	3/6	.100	2.54	0.166	4.21	.050	1.27
04	4/8	.150	3.81	0.216	5.48	.100	2.54
05	5/10	.200	5.08	0.266	6.75	.150	3.81
06	6/12	.250	6.35	0.316	8.02	.200	5.08
07	7/14	.300	7.62	0.366	9.29	.250	6.35
08	8/16	.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

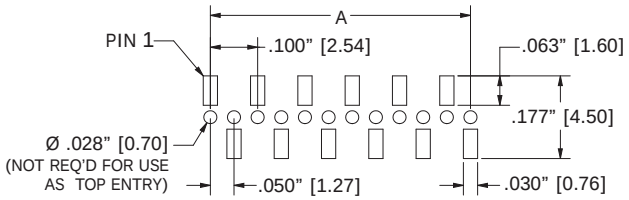
.050" [1.27 mm] Contact Centers, Top/Bottom Entry SMT Female Headers

SPECIFICATIONS

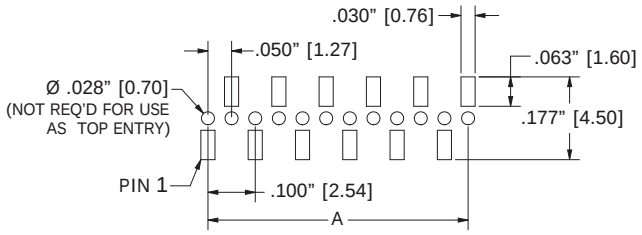
- Insulator Material: Nylon, UL 94V-0
- Contact Resistance: 20 milli Ohms Max.
- Current Rating: 1 Amp
- Dielectric Withstanding: 500 VAC
- Insulation Resistance: 5000 Megohms Min.
- Operating Temperature: -40°C to +105°C
- Processing Temperature: 230°C Max. for 60 seconds
  (260°C Max. for 10 seconds)



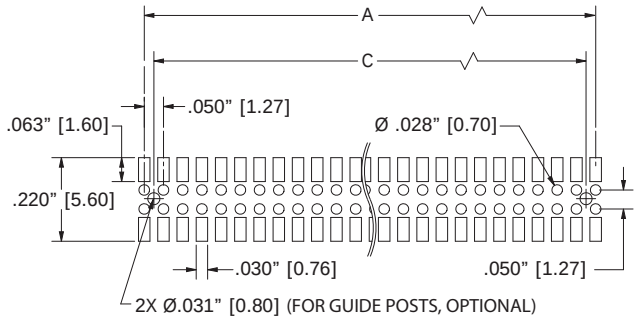
RECOMMENDED PCB LAYOUT



SFM230-NPPB-S_ _-SC_-BK

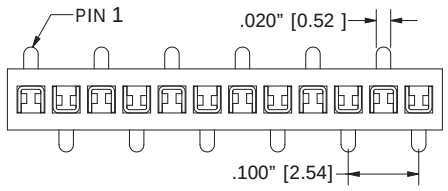


SFM230-NPPB-S_ _-SD_-BK

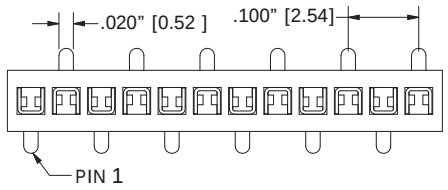


SFM230-NPPB-D_ _-S_-BK

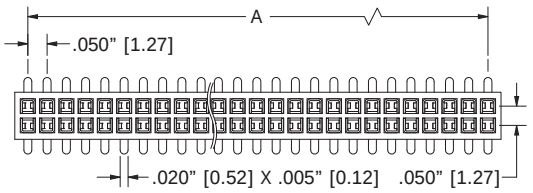
DIMENSIONS



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

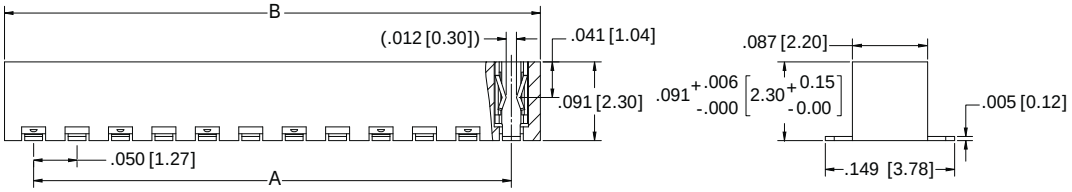
NUMBER OF CONTACT POSITIONS
(Contact Per Row, 02 thru 50)

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)

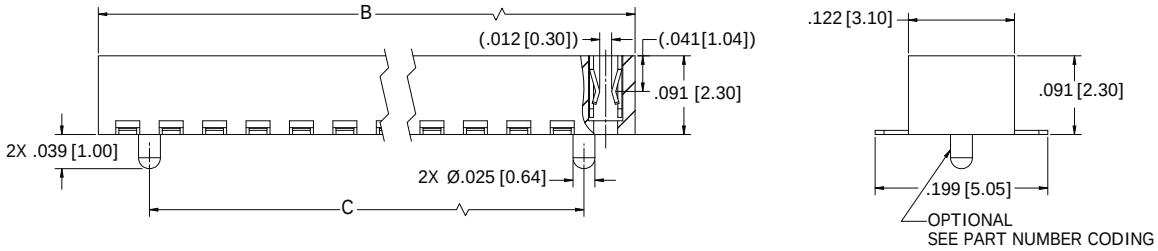
COLOR
BK = Black

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

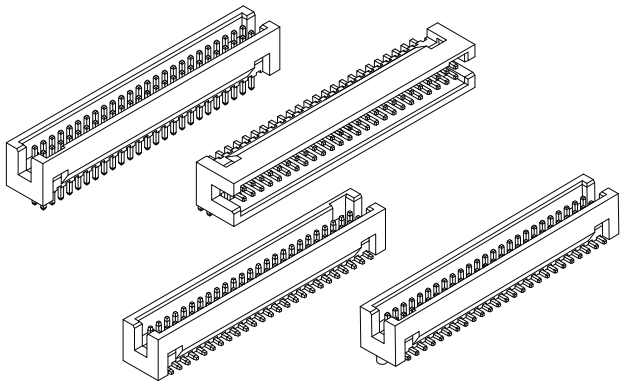
NUMBER OF CONTACTS SINGLE/DUAL	A		B		C	
	in	mm	in	mm	in	mm
27/54	1.300	33.02	1.368	34.74	1.250	31.75
28/56	1.350	34.29	1.418	36.01	1.300	33.02
29/58	1.400	35.56	1.468	37.28	1.350	34.29
30/60	1.450	36.83	1.518	38.55	1.400	35.56
31/62	1.500	38.10	1.568	39.82	1.450	36.83
32/64	1.550	39.37	1.618	41.09	1.500	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.

.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
- Voltage Rating: 20 milli Ohms Max.
- Current Rating: 1 Amp
- Dielectric Withstanding: 500 VAC
- Insulation Resistance: 1000 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

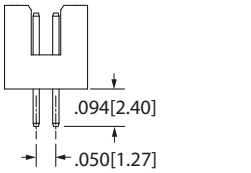
NUMBER OF CONTACT POSITIONS (Pins per Row)
03 thru 50

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

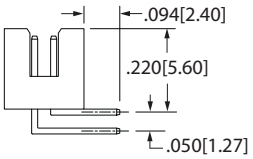
COLOR
BK = Black
Other Color Options Available (Consult Factory)

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

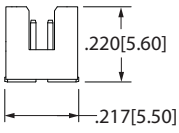
Dimensions in [ ] are in millimeters, all others are in inches.



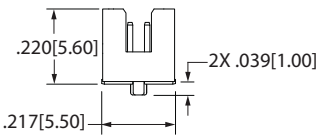
STRAIGHT (ST)
Example P/N: **SBH31-NBPB-D20-ST-BK**



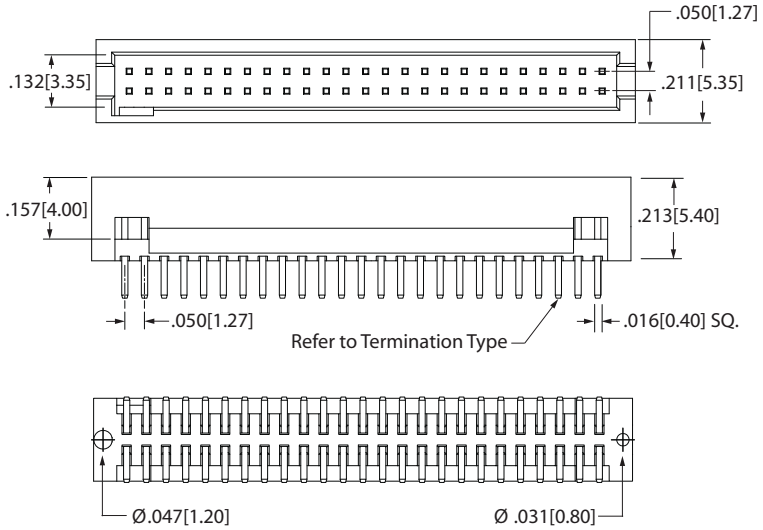
RIGHT ANGLE (RA)
Example P/N: **SBH31-NBPB-D20-RA-BK**



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



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

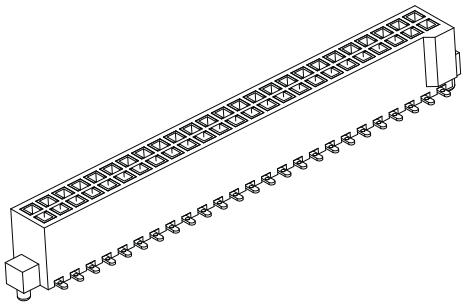


Surface Mount with Posts (SP) Only

.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

CONTACT CENTERS
B = .050" [1.27 mm]

NUMBER OF ROWS
D = Dual Row

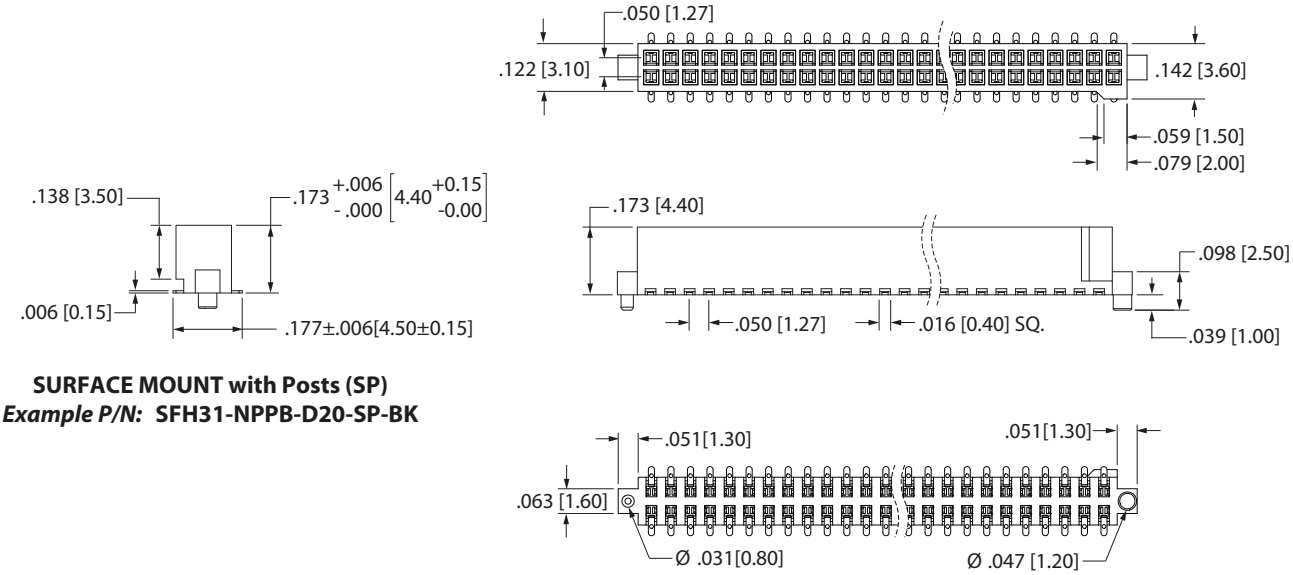
NUMBER OF CONTACT POSITIONS
03 thru 50

TERMINATION TYPE
SP = Surface Mount with Guide Posts

COLOR
BK = Black
GY = Grey

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.



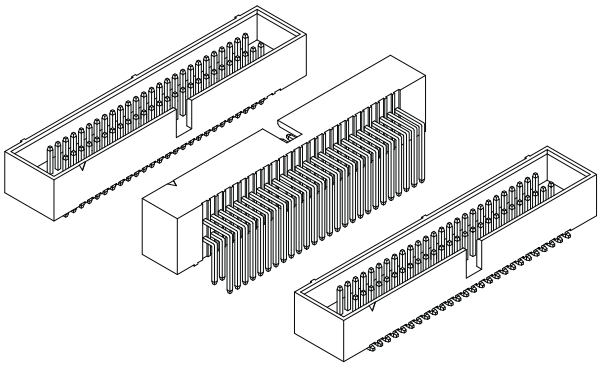
SURFACE MOUNT with Posts (SP)
Example P/N: **SFH31-NPPB-D20-SP-BK**

.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
- Voltage Rating: 20 milli Ohms Max.
- Current Rating: 1 Amp
- Dielectric Withstanding: 500 VAC
- Insulation Resistance: 1000 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

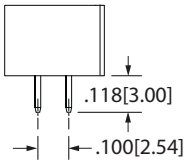
NUMBER OF CONTACT POSITIONS (Pins per Row)
05 thru 50

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

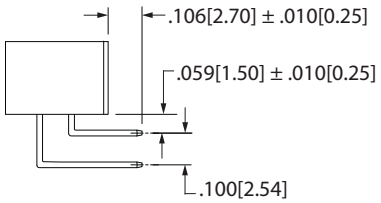
COLOR
BK = Black
Other Color Options Available (Consult Factory)

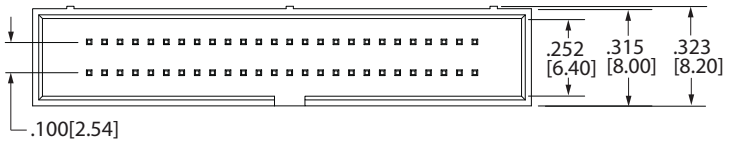
DIMENSIONS For complete drawings, go to www.sullinscorp.com or e-mail techsupport@sullinscorp.com

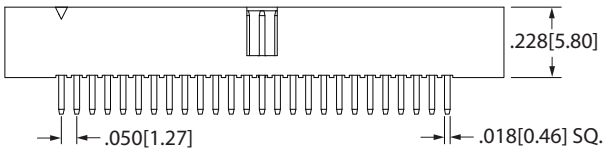
Dimensions in [ ] are in millimeters, all others are in inches.



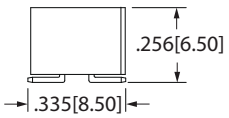
STRAIGHT (ST)
Example P/N: **SBH41-NBPB-D20-ST-BK**



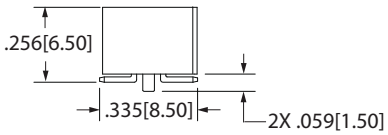




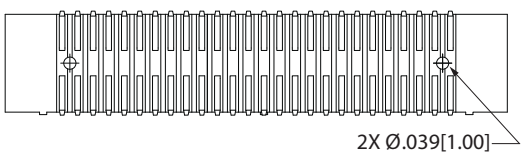
RIGHT ANGLE (RA)
Example P/N: **SBH41-NBPB-D20-RA-BK**



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



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



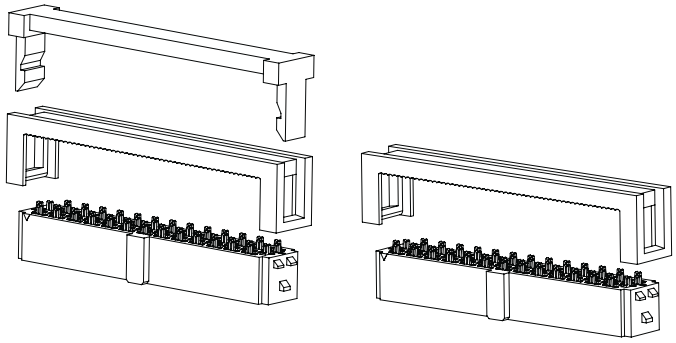
Surface Mount with Posts (SP) Only

.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

CONTACT CENTERS
B = .050" [1.27 mm]

NUMBER OF ROWS
D = Dual Row

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

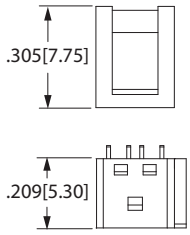
TERMINATION TYPE
ID = Insulation Displacement

COLOR
BK = Black
GY = Grey

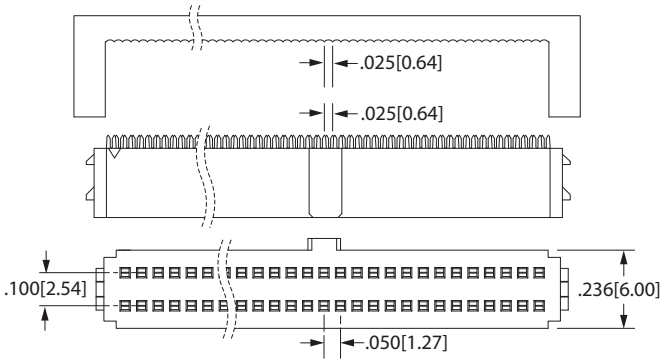
DIMENSIONS

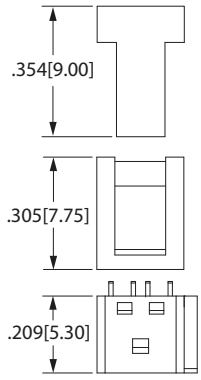
For complete drawings, go to www.sullinscorp.com or e-mail techsupport@sullinscorp.com

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

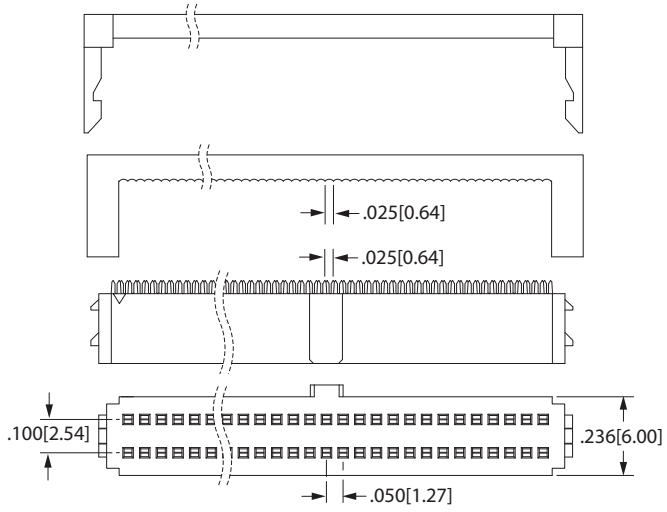


INSULATION DISPLACEMENT (ID)
without Strain Relief
Requires SFH41
Example P/N: **SFH41-PPPB-D20-ID-BK**





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

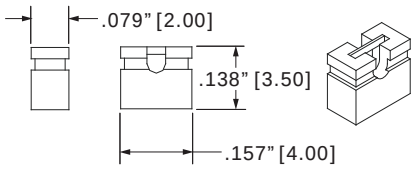


.079" [2.00 mm] Contact Centers, Male Headers, Straight/Right Angle/SMT

SPECIFICATIONS

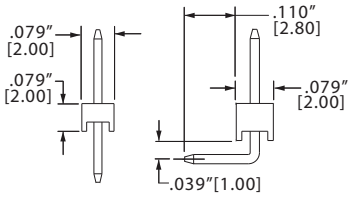
- 2 Amps current rating
- UL Flammability Rating: 94V-0
- Insulator Material: Nylon
- Contact Material: Brass
- Stacker Options available - Consult Factory

JUMPERS

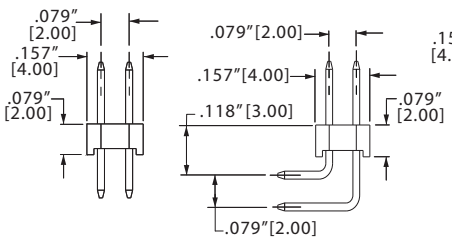


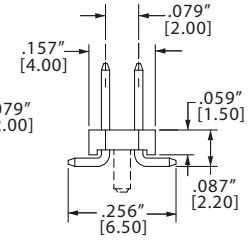
PART NUMBER:
SPN02SYBN-RC (GOLD FLASH)
STN02SYBN-RC (TIN PLATE)

READOUT

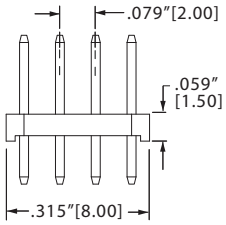


SINGLE (1)



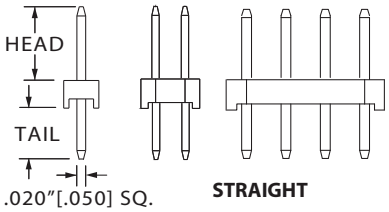


DUAL (2)

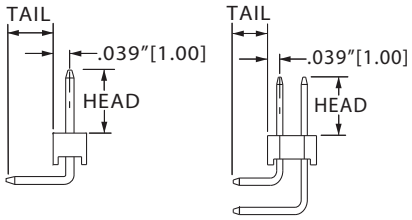


QUAD (4)

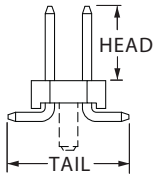
TERMINATION TYPE



STRAIGHT



RIGHT ANGLE



SMT

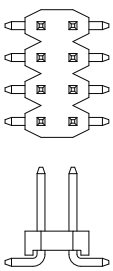
P/N CODE	ROWS	TERMINATION TYPE	HEAD	TAIL
PAE	1	STRAIGHT	.142" [3.60]	.110" [2.80]
PAE	2	STRAIGHT	.142" [3.60]	.110" [2.80]
RCC	4	STRAIGHT	.173" [4.40]	.094" [2.40]

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]

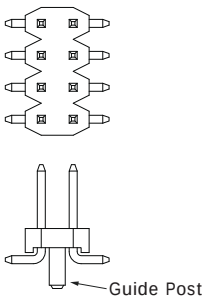
P/N CODE	ROWS	TERMINATION TYPE	HEAD	TAIL
MAM	2	SMT	.142" [3.60]	.256" [6.50]

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

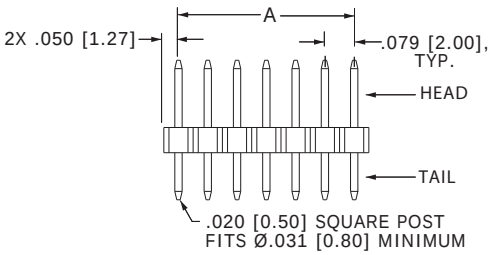
MOUNTING STYLE
N = No Mounting
P = Surface Mount with Guide Posts (Dual Row)
S = Surface Mount without Guide Posts (Dual Row)

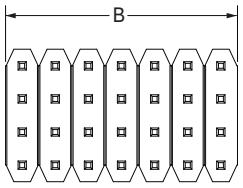
TERMINATION TYPE
MAM, PAE, PAR, RCC

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

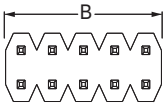
DIMENSIONS

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

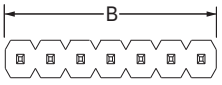




QUAD READOUT, STRAIGHT TAIL SHOWN



DUAL READOUT, STRAIGHT TAIL SHOWN



SINGLE READOUT, STRAIGHT TAIL SHOWN

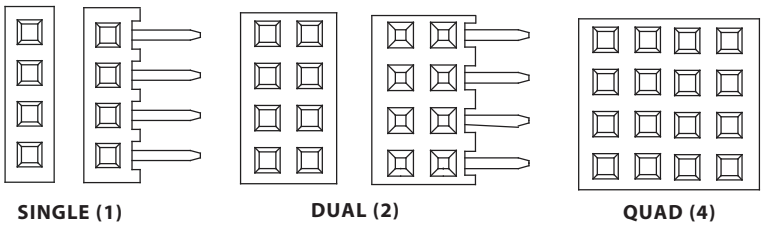
PART NUMBER	NUMBER OF CONTACTS SINGLE/DUAL/ QUAD	A		B	
		in	mm	in	mm
NRPN02 _ _ _ _ _ -RC	02/04	0.079	2.00	0.157	4.00
NRPN03 _ _ _ _ _ -RC	03/06/12	0.157	4.00	0.236	6.00
NRPN04 _ _ _ _ _ -RC	04/08/16	0.236	6.00	0.315	8.00
NRPN05 _ _ _ _ _ -RC	05/10/20	0.315	8.00	0.394	10.00
NRPN06 _ _ _ _ _ -RC	06/12/24	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

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

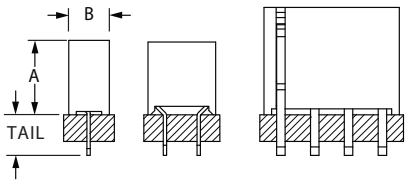
SPECIFICATIONS

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

READOUT

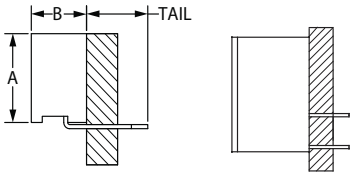


TERMINATION TYPE



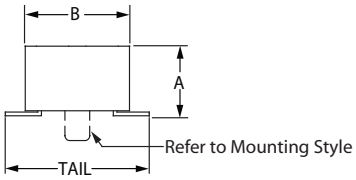
STRAIGHT

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

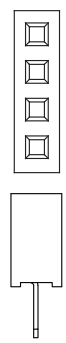
P/N CODE	ROWS	TERMINATION TYPE	A	B	TAIL
FGG	1	RIGHT ANGLE	.169 [4.30]	.110 [2.80]	.122 [3.10]
FJF	2	RIGHT ANGLE	.283 [7.20]	.191 [4.85]	.118 [3.00]



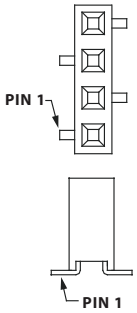
SMT

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]

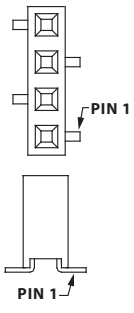
MOUNTING STYLE



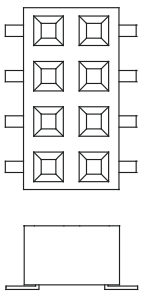
Straight or Right Angle (N)



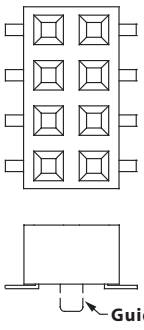
Single Row SMT, Pin 1 Left (C)



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

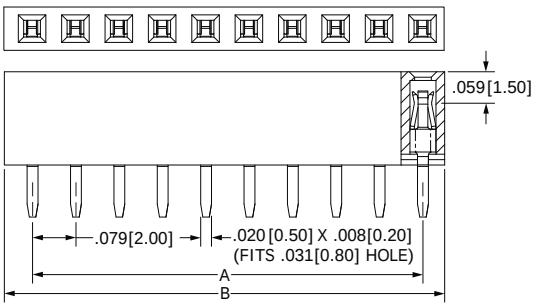
MOUNTING STYLE
N = No Mounting
C = SMT, Single row female, pin 1 Left
D = SMT, Single row female, pin 1 Right
P = Surface mount with guide Posts
S = Surface mount without guide Posts

TERMINATION TYPE (Opposite Page)

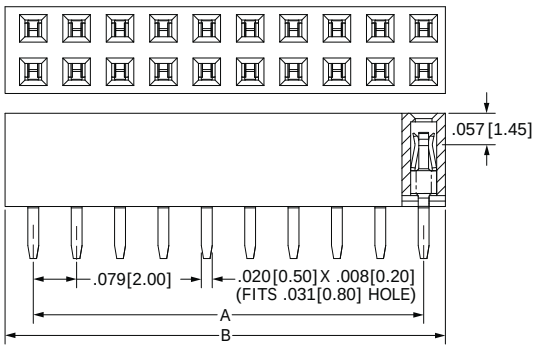
AFC =	Thru Hole	Top Entry
AFE =	Thru Hole	Top Entry/Closed Bottom
BFC =	Thru Hole	Top Entry
EFC =	Thru Hole	Top Entry
FGG =	R/A	Top Entry
FJF =	R/A	Top Entry
BFL =	SMT	Top Entry
FFK =	SMT	Top Entry
BHL, GFN =	SMT	Top/Bottom Entry
GHN =	SMT	Replaced by GFN

DIMENSIONS

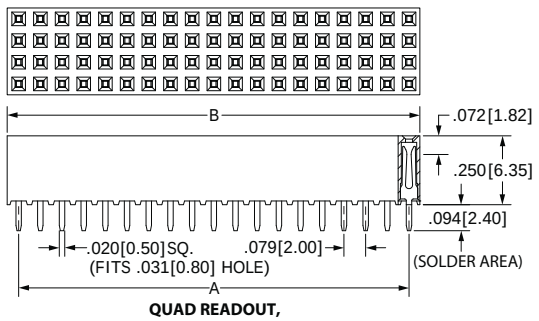
Dimensions in [ ] are in millimeters, all others are in inches.



SINGLE READOUT,
STRAIGHT TAIL SHOWN



DUAL READOUT,
STRAIGHT TAIL SHOWN



QUAD READOUT,
STRAIGHT TAIL SHOWN

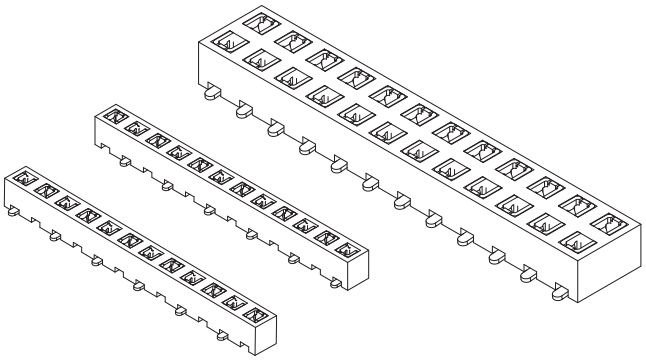
NUMBER OF CONTACTS SINGLE/DUAL/ QUAD	CENTER TO CENTER LENGTH [A]		OVERALL LENGTH [B]**	
	in	mm	in	mm
02/04/NA	0.079	2.00	0.157	4.00
03/06/NA	0.157	4.00	0.236	6.00
04/08/NA	0.236	6.00	0.315	8.00
05/10/20	0.315	8.00	0.394	10.00
06/12/24	0.394	10.00	0.472	12.00
07/14/28	0.472	12.00	0.551	14.00
08/16/32	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.

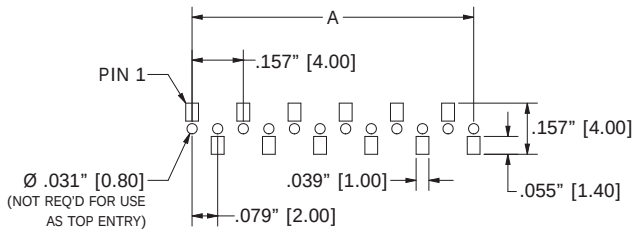
.079" [2.00 mm] Contact Centers, Top/Bottom Entry SMT Female Headers

SPECIFICATIONS

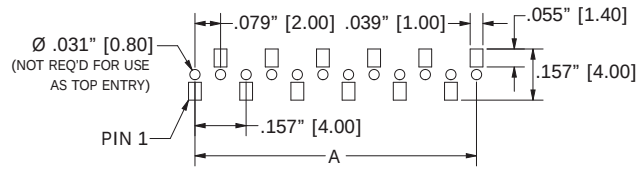
- Insulator Material: Nylon, UL 94V-0
- Contact Resistance: 20 milli Ohms Max.
- Current Rating: 2 Amps
- Dielectric Withstanding: 500 VAC
- Insulation Resistance: 5000 Megohms Min.
- Operating Temperature: -40°C to +105°C
- Processing Temperature: 230°C Max. for 60 seconds
  (260°C Max. for 10 seconds)



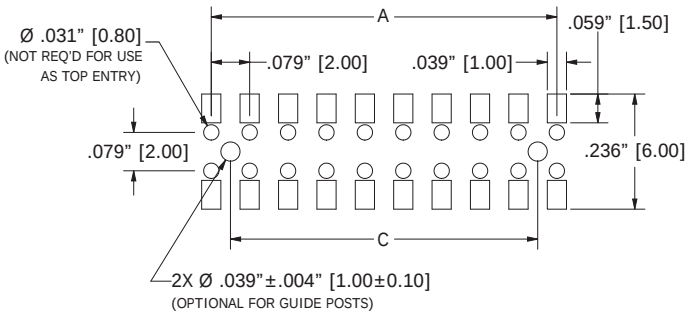
RECOMMENDED PCB LAYOUT



SFM230-NPPN-S_ _-SC-BK

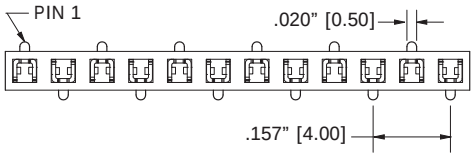


SFM230-NPPN-S_ _-SD-BK

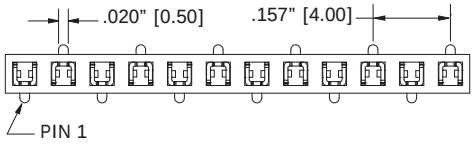


SFM230-NPPN-D_ _-S_-BK

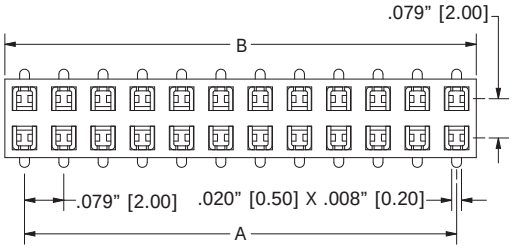
DIMENSIONS



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]

NUMBER OF ROWS
S = Single
D = Dual

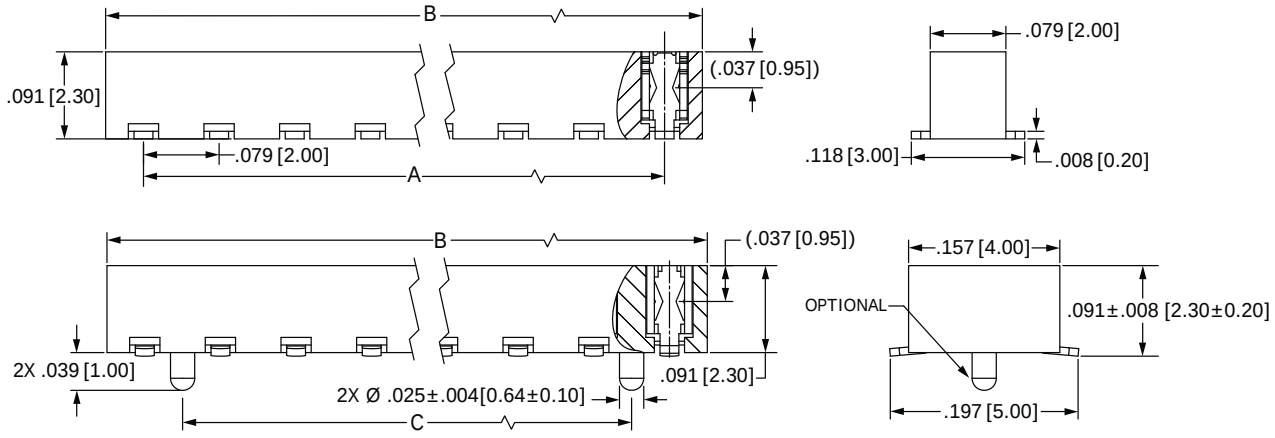
NUMBER OF CONTACT POSITIONS
(Contacts Per Row, 02 thru 40)

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*	0.079	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

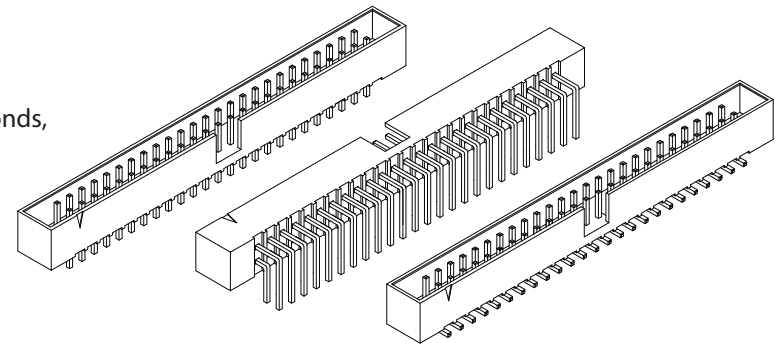
NUMBER OF CONTACTS SINGLE/DUAL	A		B		C	
	in	mm	in	mm	in	mm
22/44	1.654	42.00	1.732	44.00	1.575	40.00
23/46	1.732	44.00	1.811	46.00	1.654	42.00
24/48	1.811	46.00	1.890	48.00	1.732	44.00
25/50	1.890	48.00	1.969	50.00	1.811	46.00
26/52	1.969	50.00	2.047	52.00	1.890	48.00
27/54	2.047	52.00	2.126	54.00	1.969	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.

.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
- Voltage Rating: 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

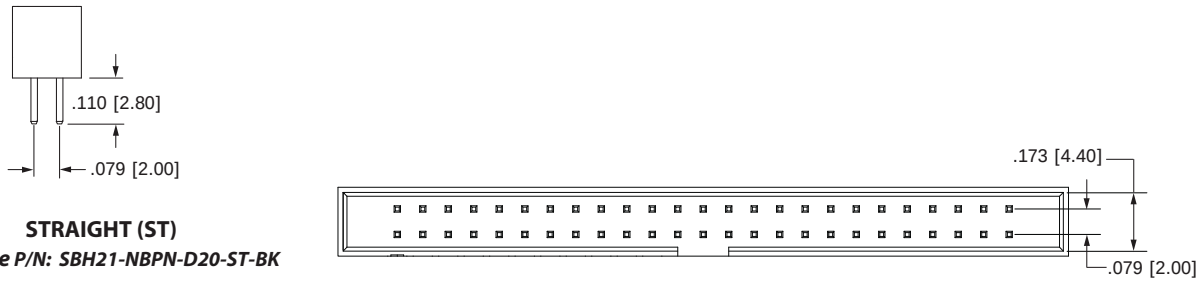
NUMBER OF CONTACT POSITIONS (Pins per Row)
03 thru 18, 20, 22, 25, 30, 32, 34

TERMINATION TYPE
ST = Straight
RA = Right Angle
SM = Surface Mount

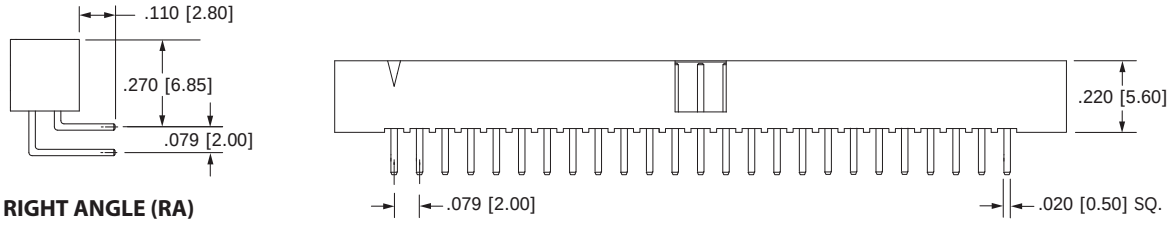
COLOR
BK = Black
Other Color Options Available (Consult Factory)

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

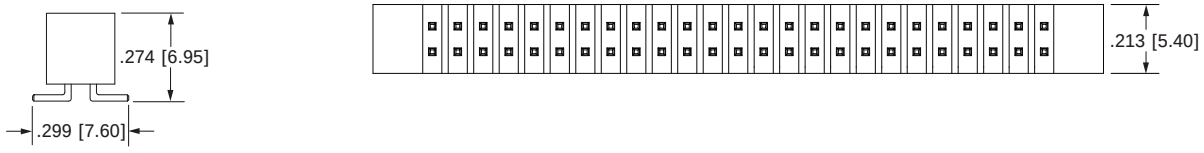
Dimensions in [ ] are in millimeters, all others are in inches.



STRAIGHT (ST)
Example P/N: SBH21-NBPN-D20-ST-BK



RIGHT ANGLE (RA)
Example P/N: SBH21-NBPN-D20-RA-BK

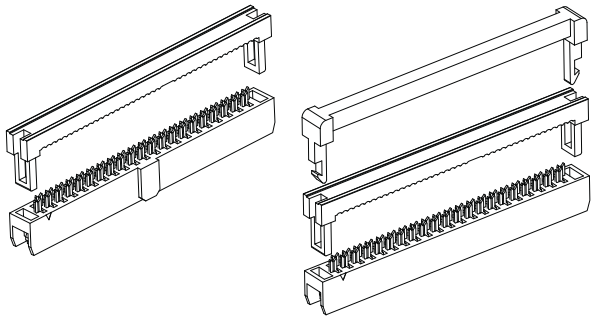


SURFACE MOUNT (SM)
Example P/N: SBH21-NBPN-D20-SM-BK

.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

CONTACT CENTERS
N = .079" [2.00 mm]

NUMBER OF ROWS
D = Dual Row

NUMBER OF CONTACT POSITIONS
03 thru 13, 15, 17, 20, 22, 25, 30, 34 (SFH21)
05 thru 13, 15, 17, 20, 22, 25 (SFH213)

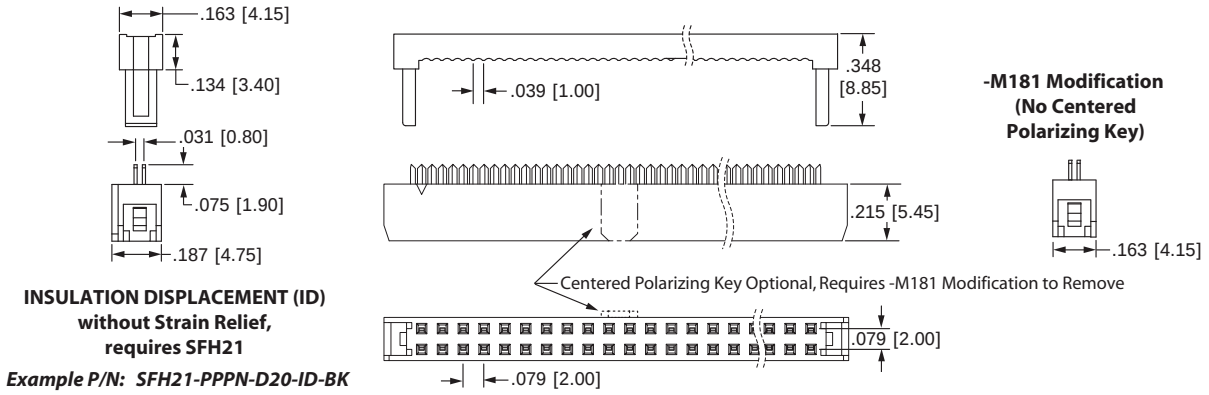
TERMINATION TYPE
ID = Insulation Displacement

COLOR
BK = Black
GY = Grey

MODIFICATION (Omit for Standard)
M181 = Without Centered Polarizing Key

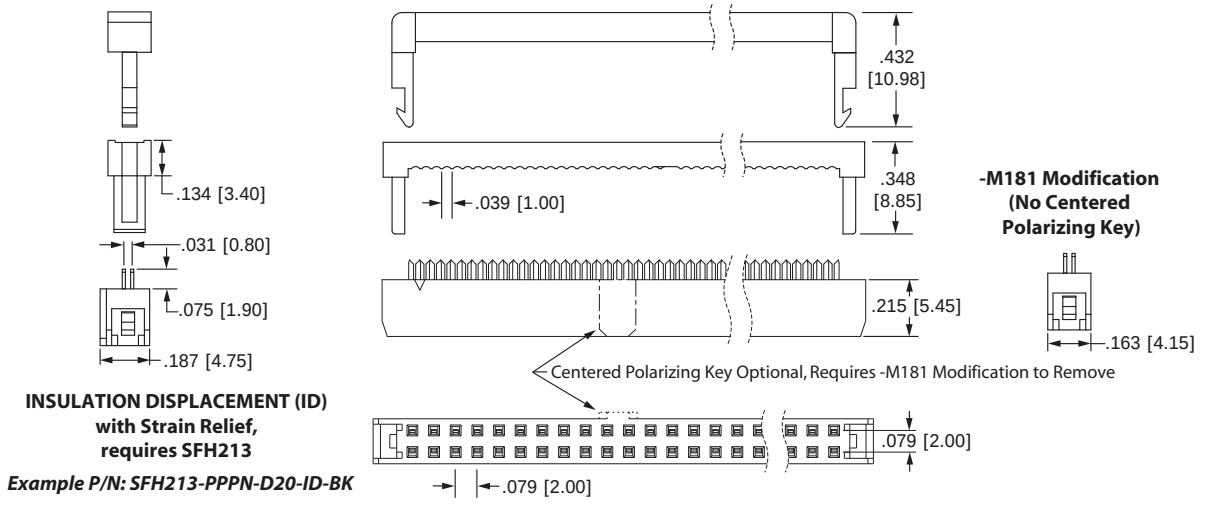
DIMENSIONS For complete drawings, go to www.sullinscorp.com or e-mail techsupport@sullinscorp.com

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



INSULATION DISPLACEMENT (ID) without Strain Relief, requires SFH21

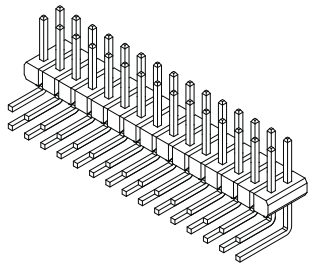
Example P/N: SFH21-PPPN-D20-ID-BK



INSULATION DISPLACEMENT (ID) with Strain Relief, requires SFH213

Example P/N: SFH213-PPPN-D20-ID-BK

.100" [2.54 mm] Contact Centers, Male Breakaway Headers, Straight/Right Angle/SMT

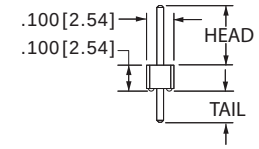


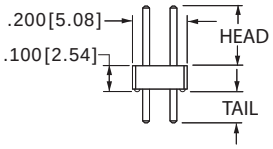
SPECIFICATIONS

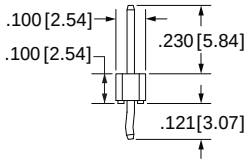
- 3 Amps current rating
- UL Flammability Rating: 94V-0
- Insulator: Polyester, PA9T, PPS, PEEK
- Contact Material: Phosphor Bronze, Beryllium Copper
- See jumpers section for options available
- Consult Factory for PCB Layout

TERMINATION TYPES

STRAIGHT TERMINATIONS







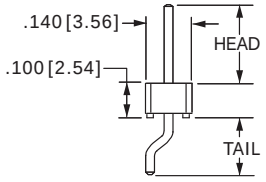
RETENTION LEAD MOUNTING
(EXAMPLE P/N: AMC36SAAR)

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 Modification Code

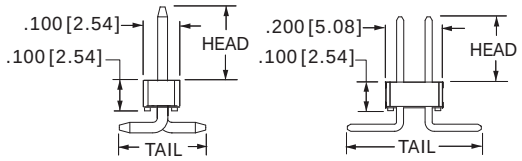


P/N CODE	HEAD	TAIL
BS	.230 [5.84]	.180 [4.57]
GS	.318 [8.08]	.180 [4.57]
ZC*	.120 [3.05]	.180 [4.57]
ZU*	.420 [10.67]	.180 [4.57]

*Consult factory for availability.

SMT TERMINATIONS

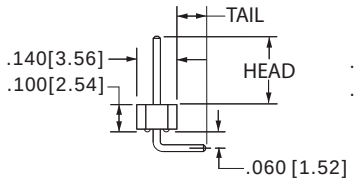
Single or Dual Row with -M30, -M508 Modification Code



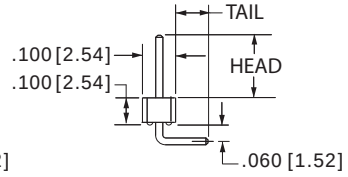
P/N CODE	HEAD	SINGLE ROW TAIL	DUAL ROW TAIL
AB	.230 [5.84]	.320 [8.13]	.420 [10.67]
FB	.318 [8.08]	.300 [7.62]	.400 [10.16]
ZS*	.120 [3.05]	.200 [5.08]	.300 [7.62]
ZT*	.420 [10.67]	.200 [5.08]	.300 [7.62]

*Consult factory for availability.

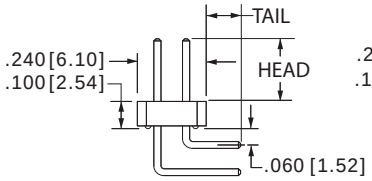
RIGHT ANGLE TERMINATIONS



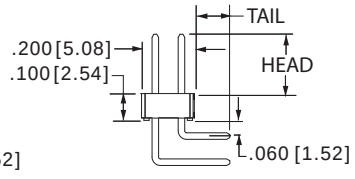
RIGHT ANGLE
(Standard)



RIGHT ANGLE SINGLE (Narrow)
-M71, -M509 Modification Code



RIGHT ANGLE
(Standard)



RIGHT ANGLE DUAL (Narrow)
-M71, -M509 Modification Code

P/N CODE	HEAD	TAIL	-M71, -M509 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/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.
- L = White PA9T/Phosphor Bronze
  Operating Temperature: -65°C to +150°C
  Processing Temperature: 260°C Max. for 10 sec.
- *A = Green PPS/Beryllium Copper (Consult Factory)
  Operating Temperature: -65°C to +200°C
  Processing Temperature: 260°C Max. for 20 sec.
- *Y = Tan PEEK/Beryllium Copper (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)

MODIFICATION CODE (Consult Factory)
OMIT FOR STANDARD
- -M500 = Brown PPS**
- -M30 = SMT, Vertical (M508 for brown PPS**)
- -M89 = SMT, Horizontal (M511 for brown PPS**)
  Available with single row only
- -M71 = Narrow Body (M509 for brown PPS**)
  Available with Right Angle Only

**Brown PPS available with material code 'A' only

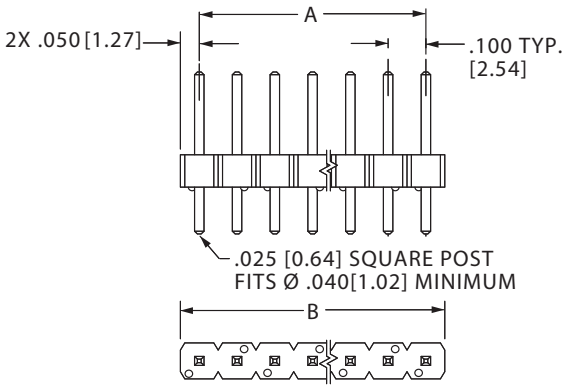
MOUNTING STYLE
- N = No Mounting
- R = Retention Lead (Single Row & 'AA' Termination Only)

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 Modification Code** = BA, BB, BC, BD, BE, BH, BI, BJ, GA, GB, GE, GF
- **SMT with -M89, -M511 Modification Code** = BS, GS, ZC, ZU
- **SMT with -M30, -M508 Modification Code** = AB, FB, ZS, ZT

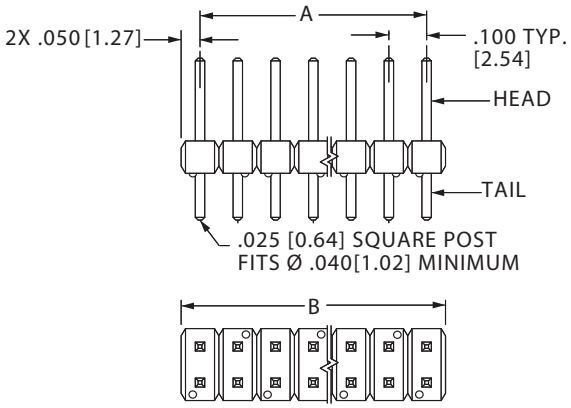
READOUT (Opposite Page)
- S = Single
- D = Dual

DIMENSIONS

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



SINGLE READOUT, STRAIGHT TAIL SHOWN



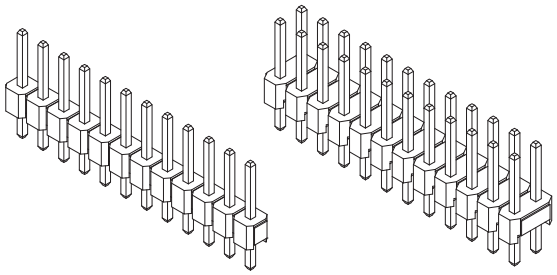
DUAL READOUT, STRAIGHT TAIL SHOWN

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

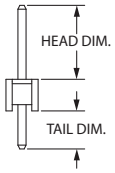
SPECIFICATIONS

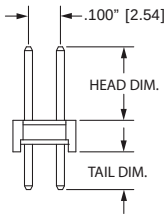
- 3 Amps current rating
- UL Flammability Rating: 94V-0
- Insulator Material: PBT, Nylon, LCP
- Contact Material: Brass



TERMINATION TYPES

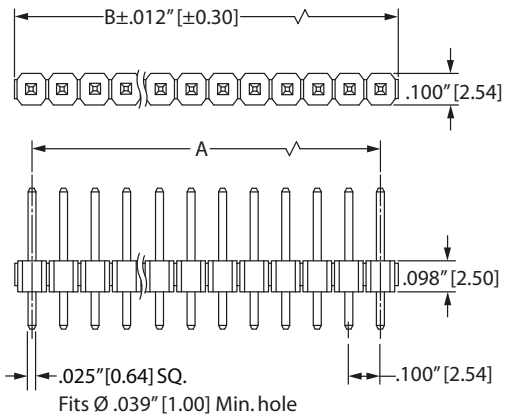
STRAIGHT TERMINATIONS



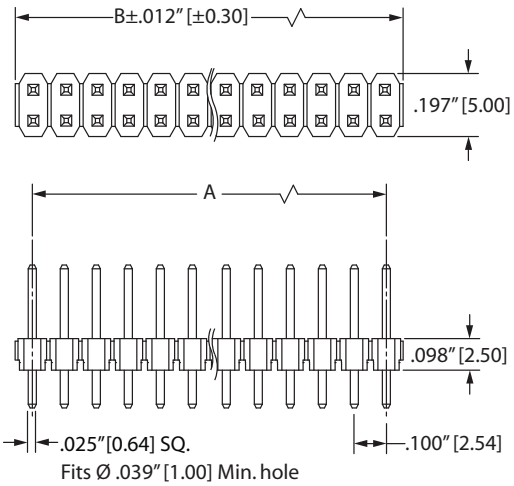


P/N CODE	HEAD	TAIL
AA	0.230˝ [5.84]	0.120˝ [3.05]
AB	0.230˝ [5.84]	0.230˝ [5.84]
AC	0.230˝ [5.84]	0.320˝ [8.13]
AD	0.230˝ [5.84]	0.420˝ [10.67]
AE	0.230˝ [5.84]	0.520˝ [13.21]
AF	0.230˝ [5.84]	0.620˝ [15.75]
AG	0.230˝ [5.84]	0.720˝ [18.29]
AH	0.230˝ [5.84]	0.820˝ [20.83]
AI	0.230˝ [5.84]	0.900˝ [22.86]
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

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: 230°C Max. for 60 sec.
(260°C Max. for 10 sec.)
LR = LCP/BRASS
Operating Temperature: -40°C to +105°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

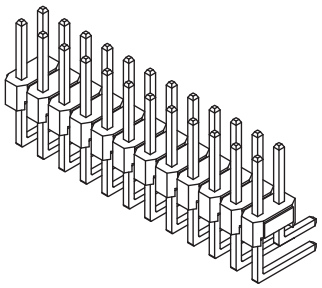
NUMBER OF POSITIONS
Contacts Per row, 002 Thru 040

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

.100" [2.54 mm] Contact Centers, Male Breakaway Headers, Right Angle/SMT

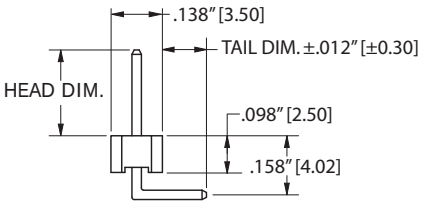


SPECIFICATIONS

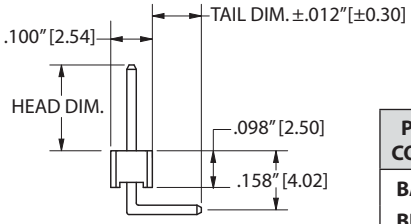
- 3 Amps current rating
- UL Flammability Rating : 94V-0
- Insulator Material : PBT, Nylon, LCP
- Contact Material : Brass

TERMINATIONS TYPES

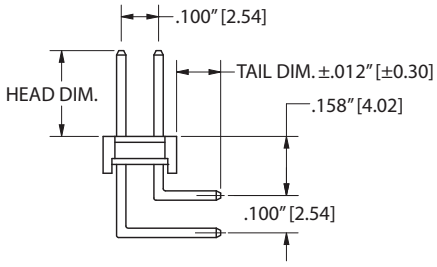
RIGHT ANGLE TERMINATIONS



Single Row (Standard)
(EXAMPLE P/N: NRBC012SBAN-RC)



Single Row (Narrow)
-M71 Modification Code
(EXAMPLE P/N: NRBC012SBAN-M71RC)



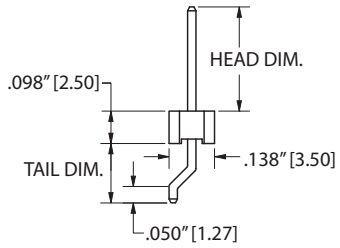
Dual Row (Narrow) -M71 Modification Code
(EXAMPLE P/N: NRBC012DBAN-M71RC)

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

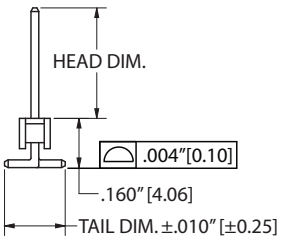
Single Row with -M89 Modification Code
(EXAMPLE P/N: NRBC012SBSN-M89RC)

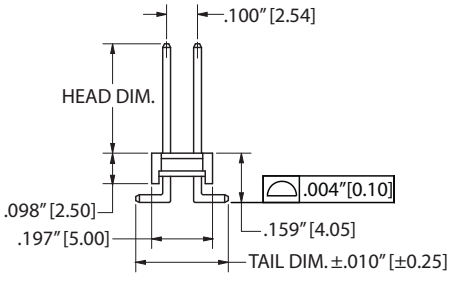


P/N CODE	HEAD	TAIL
BS	.230" [5.84]	.180" [4.57]
GS	.318" [8.08]	.180" [4.57]
ZC	.120" [3.05]	.180" [4.57]
ZU	.420" [10.67]	.180" [4.57]

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: 230°C Max. for 60 seconds
(260°C Max. for 10 seconds)
LR = LCP/BRASS
Operating Temperature: -40°C to +105°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

READOUT
S = Single
D = Dual

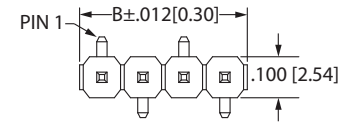
TERMINATION TYPE
Right Angle = BA, BB, BC, BD, BE, BH, BI, BJ,GA, GB, GE, GF (Single Row or Dual Row)
= BF, BG, GC, GD, DA (Single Row Only)
SMT with -M89 Modification Code
= BS, GS, ZC, ZU (Single Row Only)
SMT with -M30 Modification Code
= AB, FB, ZS, ZT

MOUNTING STYLE
N = No Mounting
C = SMT, Single Row (Standard)
D = SMT, Single Row (Opposite Bend)

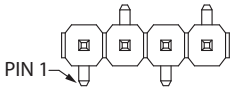
MODIFICATION CODE (Consult Factory)
OMIT FOR STANDARD ('NR' Material Only)
-M30 = SMT ('NR' & 'LR' Material Only), Vertical
-M89 = SMT ('NR' Material Only), Horizontal
-M71 = Right Angle ('PR', 'NR', 'LR' Material), Narrow Body

DIMENSIONS

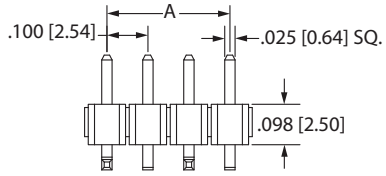
Dimensions in [ ] are in millimeters, all others are in inches.



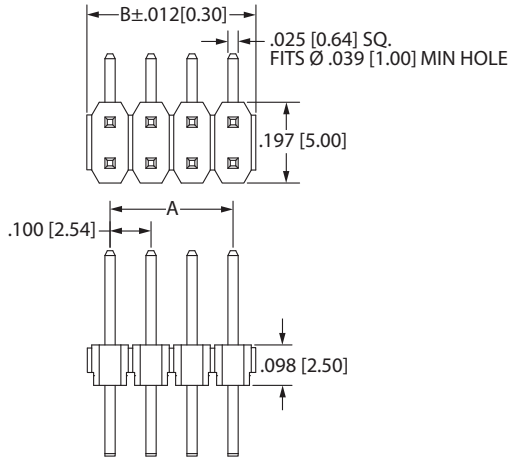
P/N: _R_C_ _ _S_ _C-M30RC
(STANDARD)



P/N: _R_C_ _ _S_ _D-M30RC
(OPPOSITE BEND, ONLY APPLICABLE ON EVEN PIN COUNTS)



SINGLE READOUT,
SMT TAIL -M30 SHOWN



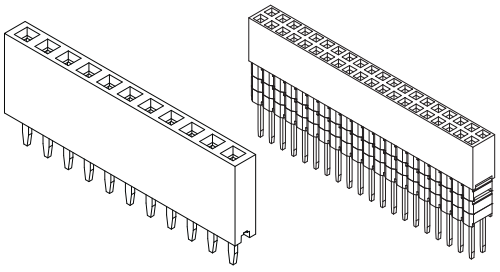
DUAL READOUT,
RIGHT ANGLE TAIL -M71 SHOWN

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

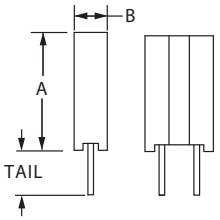
.100" [2.54 mm] Contact Centers, Female Headers, Straight/Right Angle/SMT

SPECIFICATIONS

- 3 Amps current rating
- UL Flammability Rating : 94V-0
- Insulator Material : PBT, Nylon
- Contact Material : Phosphor Bronze

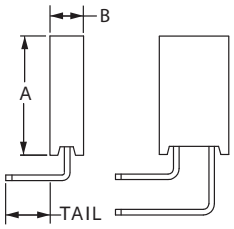


TERMINATION TYPE



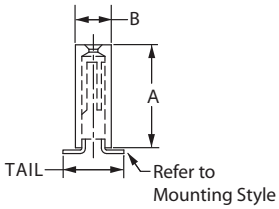
STRAIGHT

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]



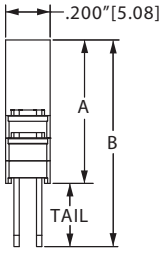
RIGHT ANGLE

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

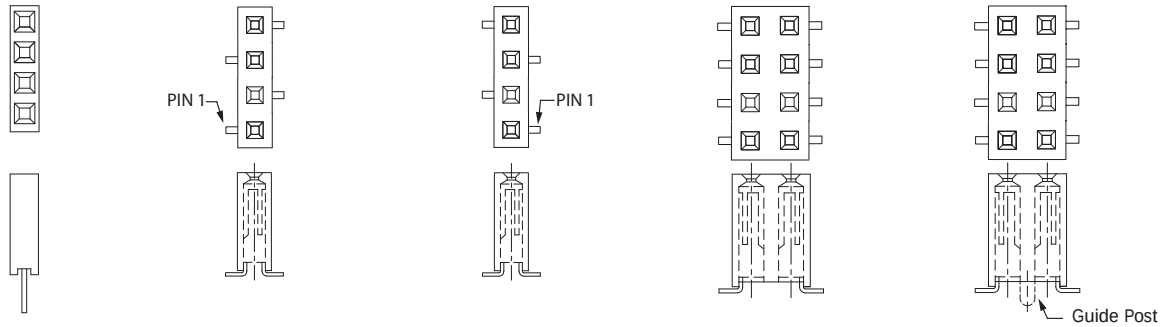
P/N CODE	ROWS	TERMINATION TYPE	ENTRY	A	B	TAIL
KFX	1	SMT	TOP ENTRY	.280" [7.10]	.098" [2.50]	.169" [4.30]
KFM	2	SMT	TOP ENTRY	.280" [7.10]	.197" [5.00]	.270" [6.85]



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

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

RoHS Compliant

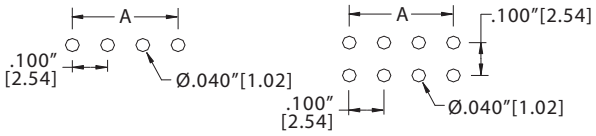
MODIFICATION (Consult Factory)
Required for LFH Termination
See Termination Type on Opposite Page

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 SERIES ONLY)
KFM = Dual Row SMT (NP SERIES ONLY)
LFH = Dual Row Straight with Elevated Spacer
(Requires Modification see Opposite Page)

NUMBER OF ROWS (Opposite Page)
1 = Single Row
2 = Dual Row

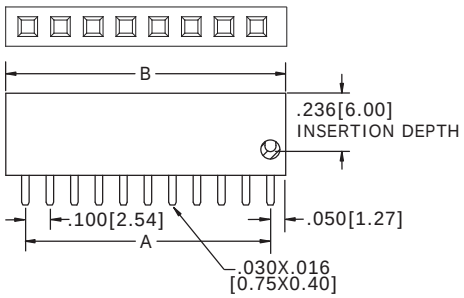
PCB LAYOUT



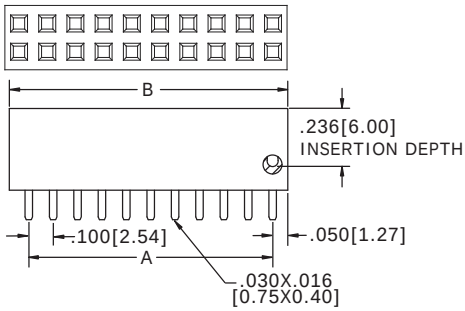
Recommended P.C.Board Hole Layout

DIMENSIONS

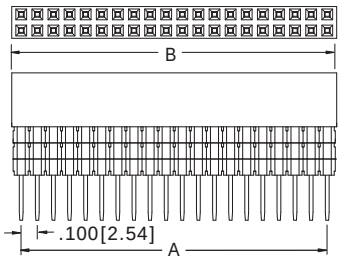
Dimensions in [ ] are in millimeters, all others are in inches.



SINGLE READOUT, STRAIGHT TAIL SHOWN



DUAL READOUT, STRAIGHT TAIL SHOWN



DUAL READOUT STRAIGHT TAIL WITH ELEVATED SPACER SHOWN

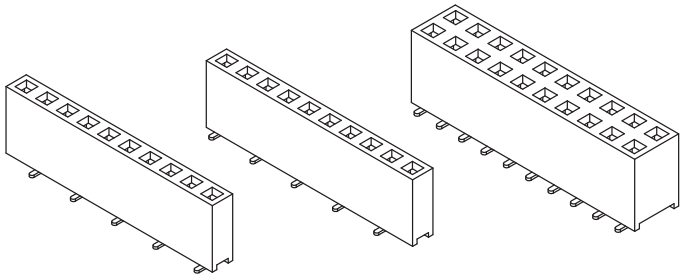
NUMBER OF POSITIONS	NUMBER OF CONTACTS		A		B	
	1 Row	2 Row	in	mm	in	mm
02	2	4	.100	2.54	.220	5.58
03	3	6	.200	5.08	.320	8.12
04	4	8	.300	7.62	.420	10.66
05	5	10	.400	10.16	.520	13.20
06	6	12	.500	12.70	.620	15.74
07	7	14	.600	15.24	.720	18.28
08	8	16	.700	17.78	.820	20.82
09	9	18	.800	20.32	.920	23.36
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

.100" [2.54 mm] Contact Centers, Top/Bottom Entry SMT Female Headers, SFM710/SFM850 Series

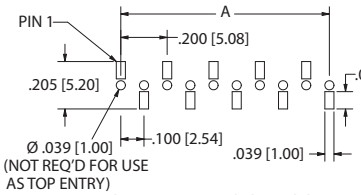
SPECIFICATIONS

- 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)

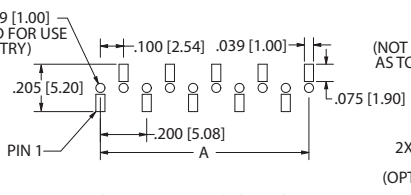


RECOMMENDED PCB LAYOUT

SINGLE ROW

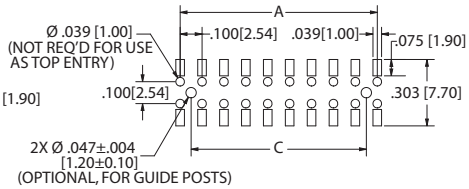


SFM710-NPPC-S_ _-SC-BK
SFM850-NPPC-S_ _-SC-BK



SFM710-NPPC-S_ _-SD-BK
SFM850-NPPC-S_ _-SD-BK

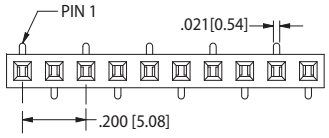
DUAL ROW



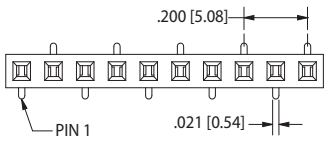
SFM710-NPPC-D_ _-S_-BK
SFM850-NPPC-D_ _-S_-BK

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

SINGLE ROW

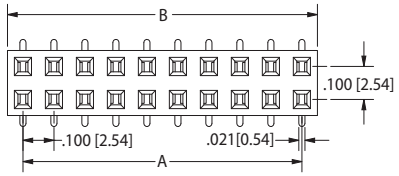


SFM710-NPPC-S_ _-SC-BK
SFM850-NPPC-S_ _-SC-BK
(STANDARD)



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

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

*Not available with guide posts.

.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]

NUMBER OF ROWS
S = Single
D = Dual

NUMBER OF CONTACT POSITIONS
(Contact Per Row, 02 thru 40)

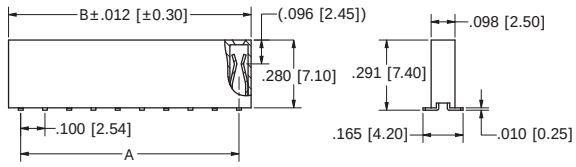
TERMINATION TYPE (See Opposite Page)
SC = Surface Mount, Standard (Single Row)
SD = Surface Mount, Opposite Bend, Applicable on Even Pin Counts (Single Row)
SM = Surface Mount without Guide Posts (Dual Row)
SP = Surface Mount with Guide Posts (Dual Row)

COLOR
BK = Black

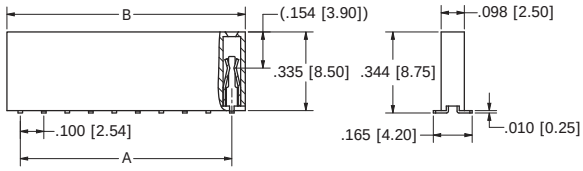
DIMENSIONS

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

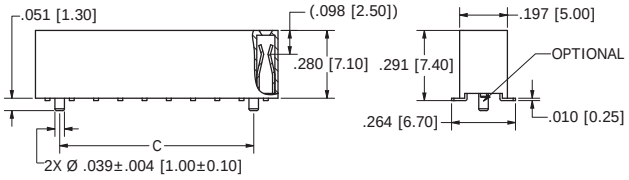
SFM710 Series Single Row



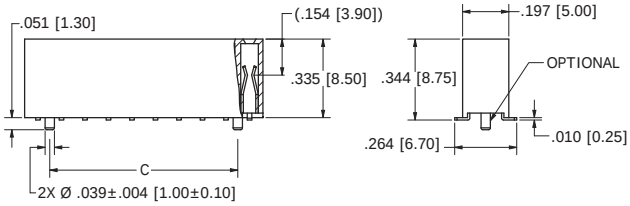
SFM850 Series Single Row



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

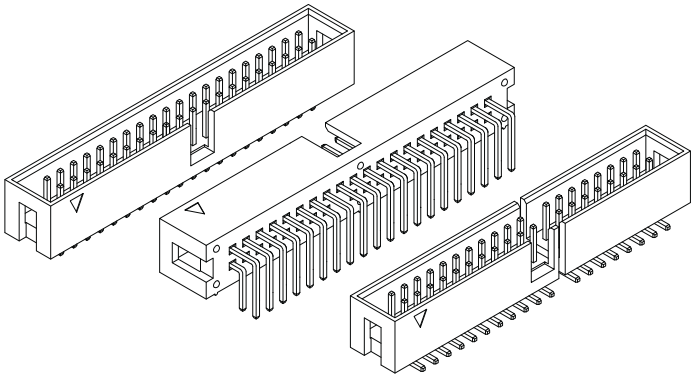
*Not available with guide posts.

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

.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
- Voltage Rating: 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

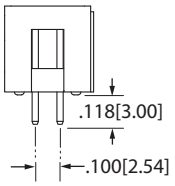
NUMBER OF CONTACT POSITIONS (Pins per Row)
03 thru 08, 10, 12, 13, 15, 17, 20, 22, 25, 30, 32

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

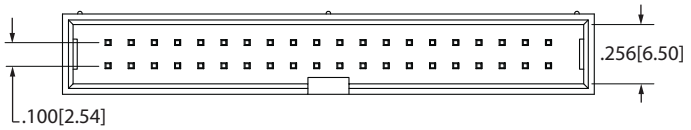
COLOR
BK = Black
Other Color Options Available (Consult Factory)

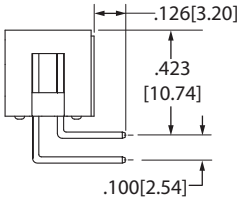
DIMENSIONS For complete drawings, go to www.sullinscorp.com or e-mail techsupport@sullinscorp.com

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

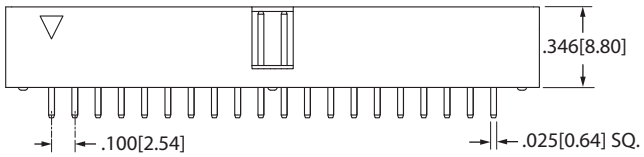


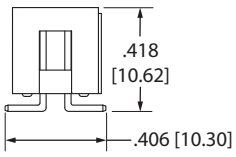
STRAIGHT (ST)
Example P/N: **SBH11-PBPC-D20-ST-BK**



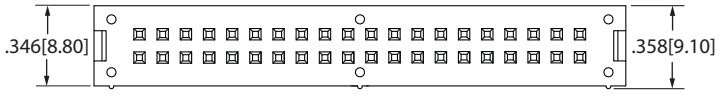


RIGHT ANGLE (RA)
Example P/N: **SBH11-PBPC-D20-RA-BK**



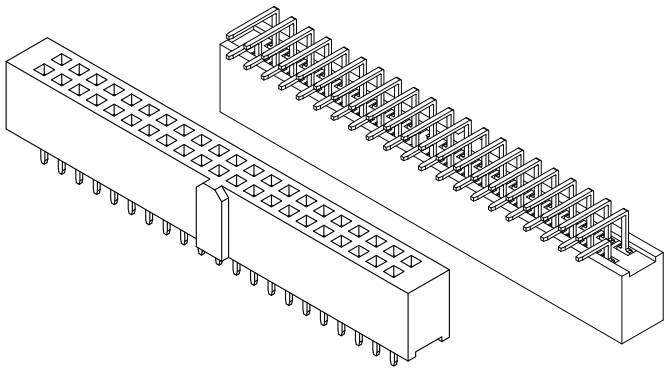


SURFACE MOUNT (SM)
Example P/N: **SBH11-NBPC-D20-SM-BK**



.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]

NUMBER OF ROWS
D = Dual Row

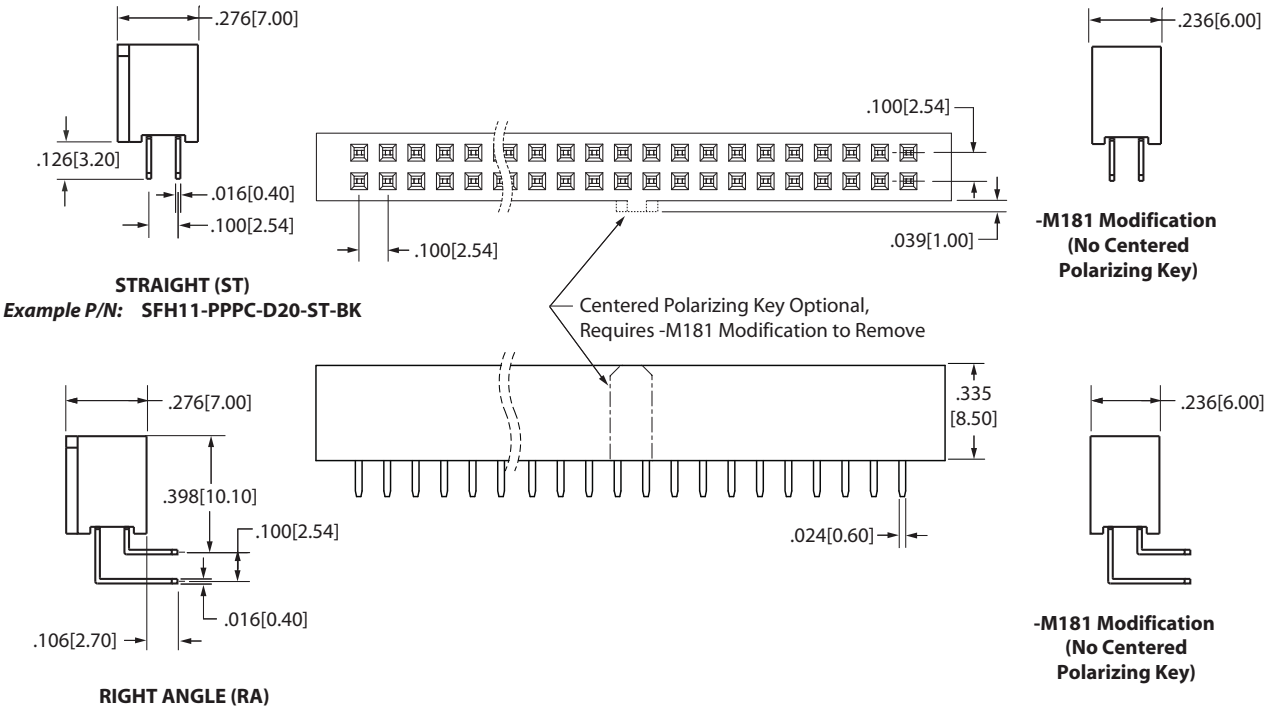
NUMBER OF CONTACT POSITIONS
03 thru 08,10,12, 13, 15,17, 20, 25, 30, 32

TERMINATION TYPE (Opposite Page)
ST = Straight
RA = Right Angle

COLOR
BK = Black
GY = Grey

MODIFICATION (Omit for Standard)
M181 = Without Centered Polarizing Key

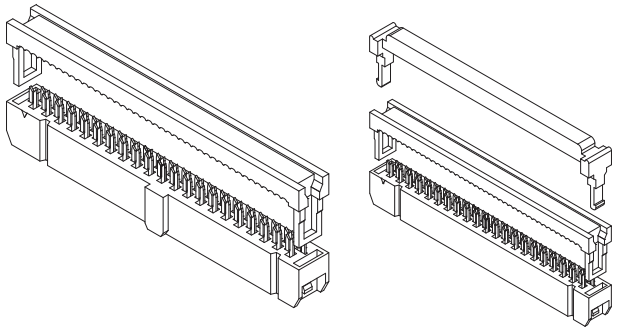
DIMENSIONS For complete drawings, go to www.sullinscorp.com or e-mail techsupport@sullinscorp.com
Dimensions in [ ] are in millimeters, all others are in inches.



STRAIGHT (ST)
Example P/N: **SFH11-PPPC-D20-ST-BK**

RIGHT ANGLE (RA)
Example P/N: **SFH11-PPPC-D20-RA-BK**

.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

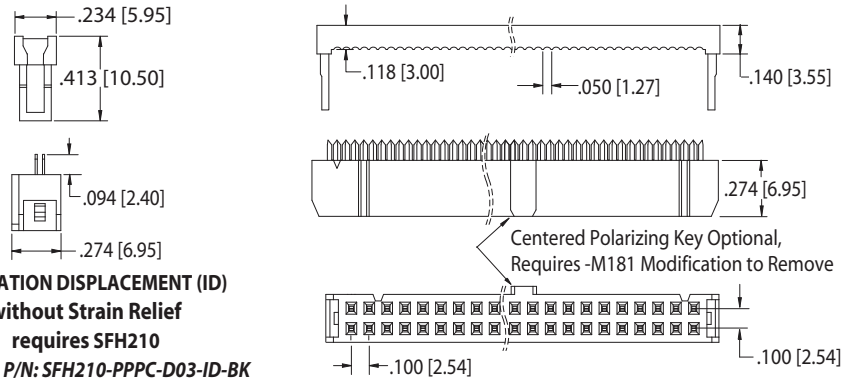
NUMBER OF CONTACT POSITIONS
03 thru 13, 15, 17, 20, 25, 30, 32
*M208 and M207 not available in 30 or 32

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

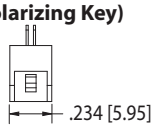
Dimensions in [ ] are in millimeters, all others are in inches.

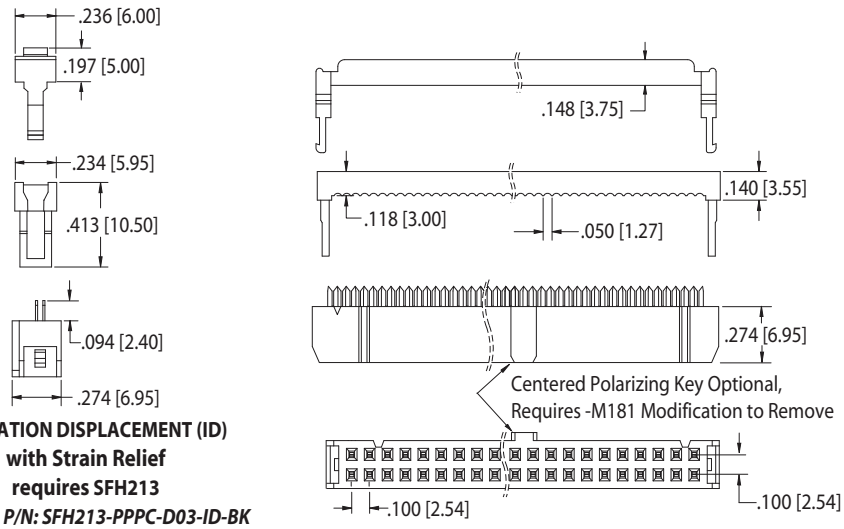


INSULATION DISPLACEMENT (ID) without Strain Relief requires SFH210

Example P/N: SFH210-PPPC-D03-ID-BK

-M181 Modification (No Centered Polarizing Key)

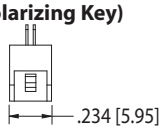




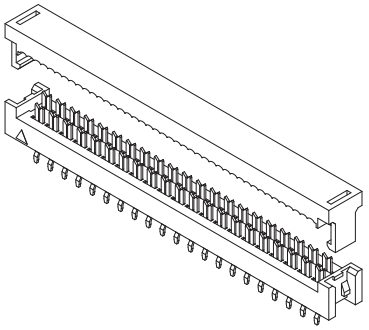
INSULATION DISPLACEMENT (ID) with Strain Relief requires SFH213

Example P/N: SFH213-PPPC-D03-ID-BK

-M181 Modification (No Centered Polarizing Key)



.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

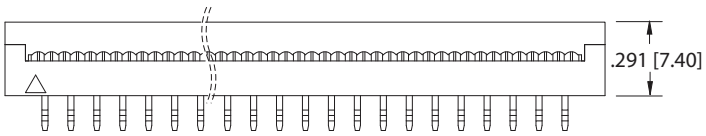
NUMBER OF CONTACT POSITIONS
03 thru 10, 12, 13, 14, 15, 17, 20, 25, 30, 32

TERMINATION TYPE
ST = Straight
SK = Straight with Kink

COLOR
BK = Black

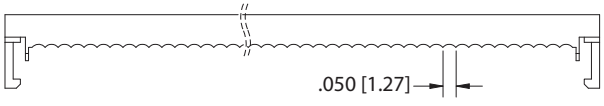
DIMENSIONS For complete drawings, go to www.sullinscorp.com or e-mail techsupport@sullinscorp.com

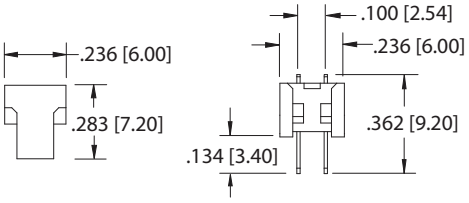
Dimensions in [ ] are in millimeters, all others are in inches.



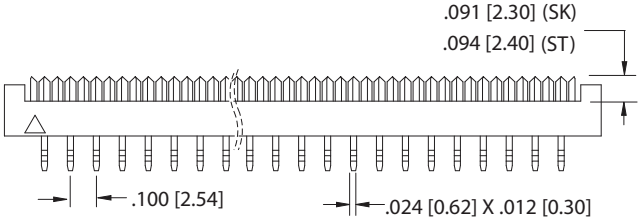
ASSEMBLED FRONT VIEW

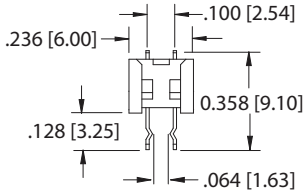
STRAIGHT (ST) WITH KINK (SK)





STRAIGHT (ST)
Example P/N: SIP110-PP_C-D10-ST-BK





WITH KINK (SK)
Example P/N: SIP110-PP_C-D15-SK-BK

.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

NUMBER OF ROWS
S = Single Circuit
D = Dual Circuit

PROFILE & TYPE
VA, VF

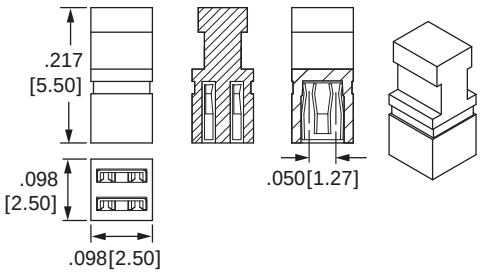
MOUNTING STYLE
N = No Mounting

RoHS COMPLIANT

In2Connect UK Ltd
Tel: +44(0)1962 773004
Fax: +44(0)1962 600034
Sales@in2connect.uk.com

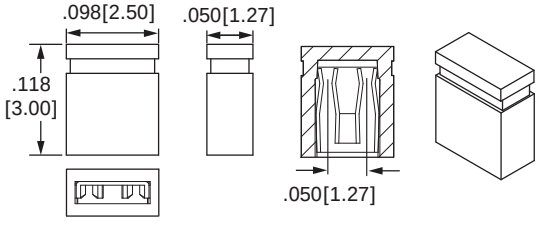
DIMENSIONS
Dimensions in [ ] are in millimeters, all others are in inches.

CLOSED TOP - DUAL CIRCUIT

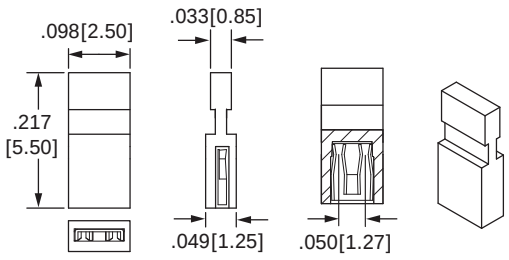


NPB02DVFN-RC

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

NUMBER OF ROWS
S = Single Circuit

PROFILE & TYPE
VB, VE, XC, XL, XN, YB

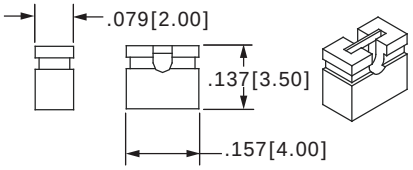
MOUNTING STYLE
N = No Mounting

RoHS COMPLIANT

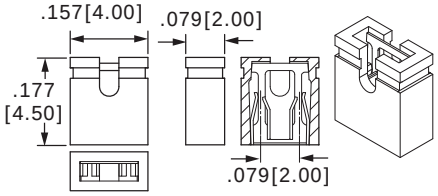
DIMENSIONS Dimensions in [ ] are in millimeters, all others are in inches.

OPEN TOP - SINGLE CIRCUIT

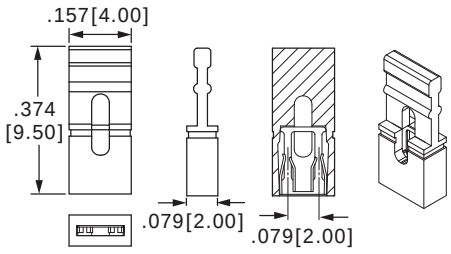
STANDARD



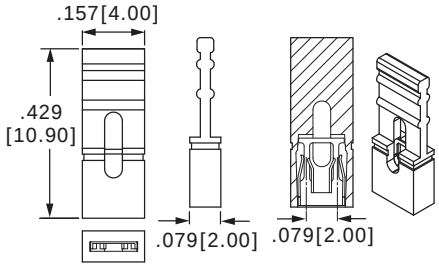
SPN02SYBN-RC
STN02SYBN-RC



SPN02SXCN-RC

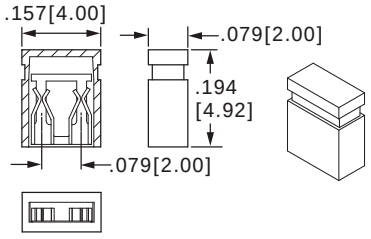


NPN02SXLN-RC

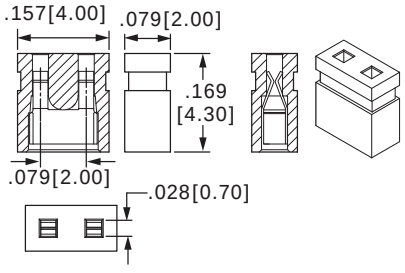


NPN02SXNN-RC

CLOSED TOP - SINGLE CIRCUIT



SPN02SVEN-RC



SPN02SVBN-RC

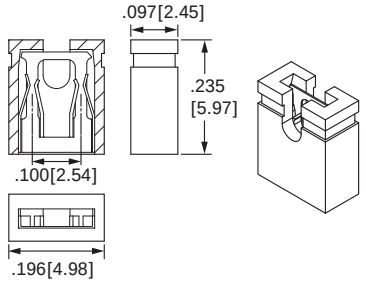
.100"[2.54 mm] Contact Centers, Jumpers
Open / Closed Top

SPECIFICATIONS

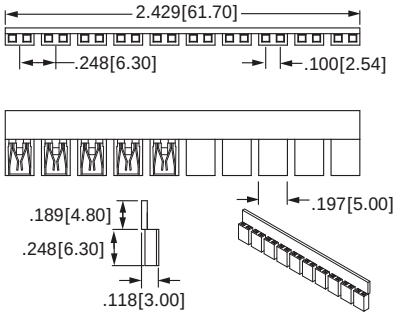
- Insulator Material: Nylon, PBT, PA9T, PPS, PEEK
- Contact Material: Phosphor Bronze, Brass, Beryllium Copper, Beryllium Nickel, Spinodal
- Plating: Gold Flash Overall
- 3 Amps current rating
- UL Flammability Rating: 94V-0/94V-2
- Dual Beam Contacts

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

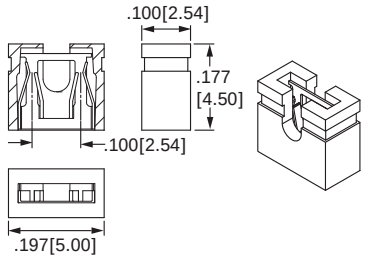
OPEN TOP - SINGLE CIRCUIT



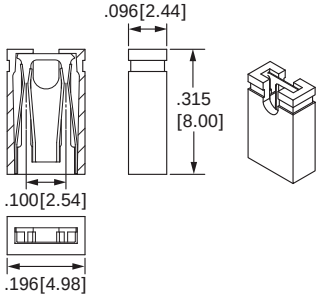
QPC02SXGN-RC



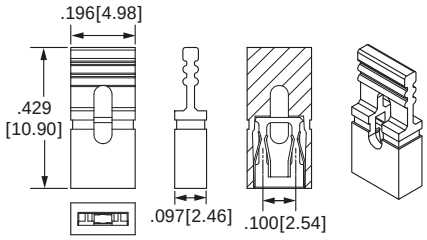
QPC02SXHN-M290RC (Strip of 10)



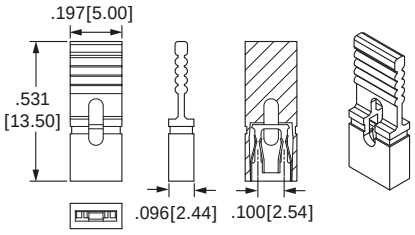
SPC02SXCN-RC



SPC02SXIN-RC

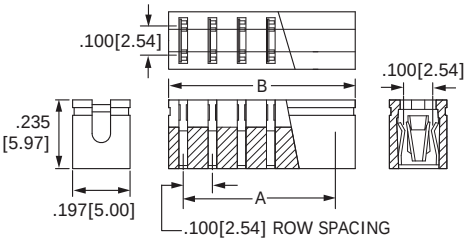


NPC02SXNN-RC
High Temperature Options Available
Example P/N: ADC02SXNN-S328



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

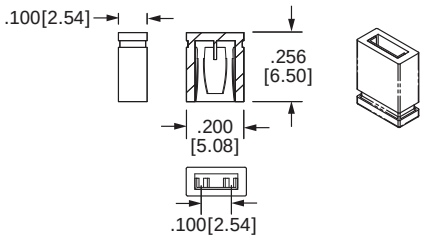
PROFILE & TYPE
VD, VG, VJ, VK, XC, XG, XH, XI, XN, XO, YA

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

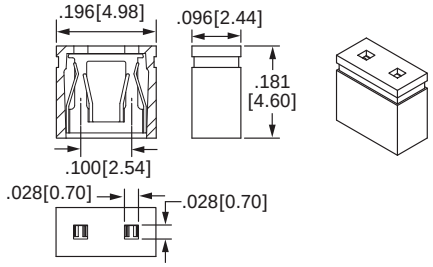
DIMENSIONS
Dimensions in [ ] are in millimeters, all others are in inches.

CLOSED TOP - SINGLE CIRCUIT

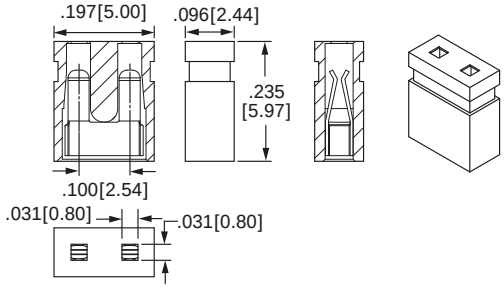
STANDARD



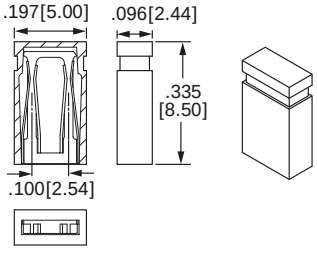
STC02SYAN
SPC02SYAN
SSC02SYAN



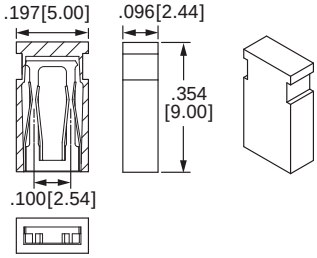
SPC02SVDN-RC



SPC02SVGN-RC



SPC02SVJN-RC

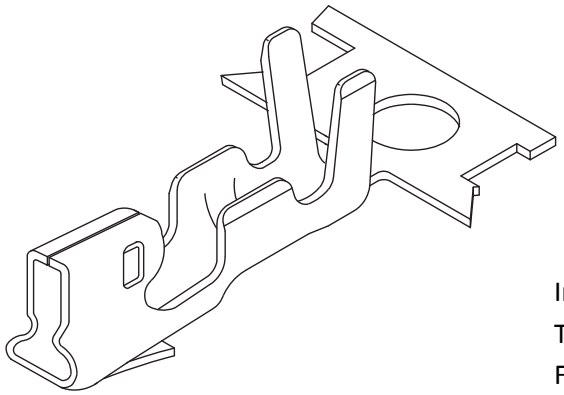


SPC02SVKN-RC

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



In2Connect UK Ltd
Tel: +44(0)1962 773004
Fax: +44(0)1962 600034
Sales@in2connect.uk.com

PART NUMBER OPTIONS

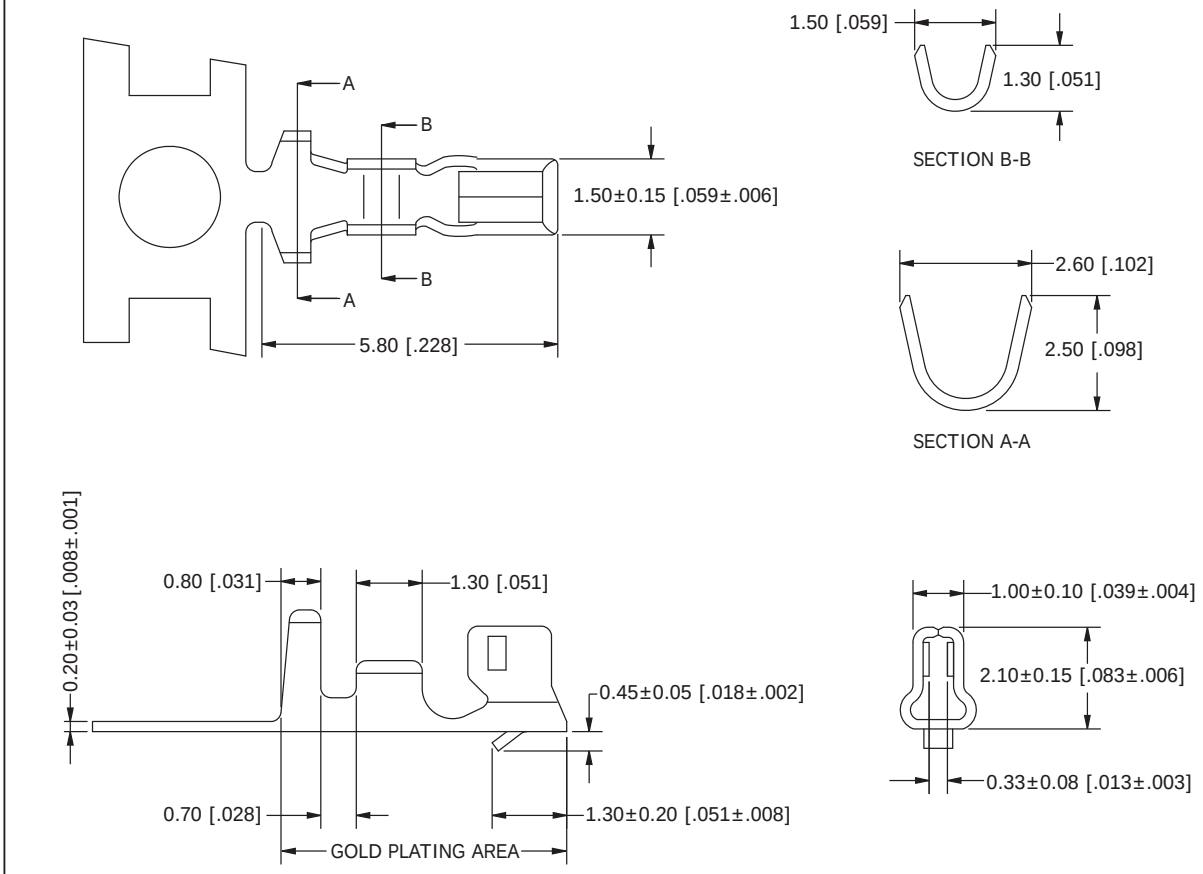
SWT201-UPTN-S01-UU-UU

CONTACT FINISH - RoHS Compliant

T = .000015" Min Nickel Underplate, .000040" Min Pure Tin, Bright Overall
P = .000040" Min Nickel Underplate, Gold Flash Overall

DIMENSIONS

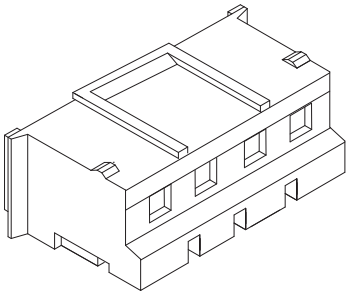
Dimensions in [ ] are in inches, all others are in millimeters.



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

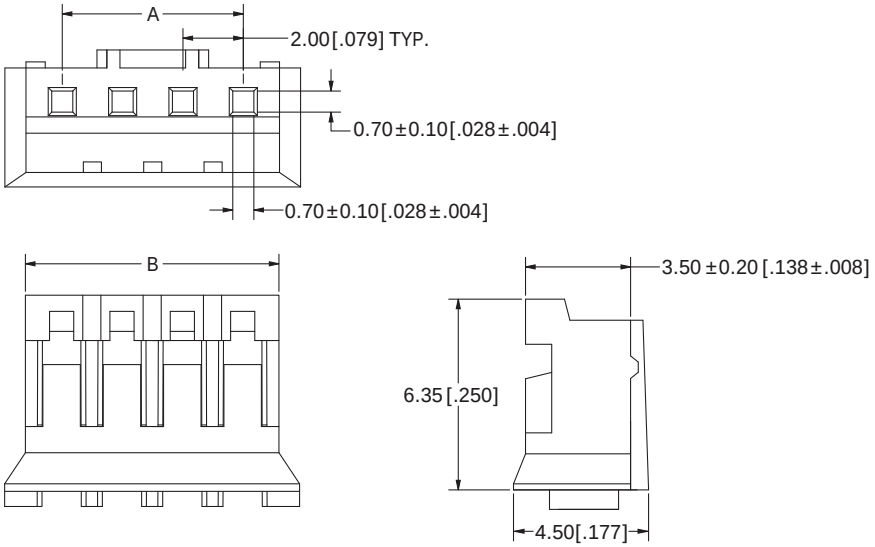


PART NUMBER OPTIONS

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.

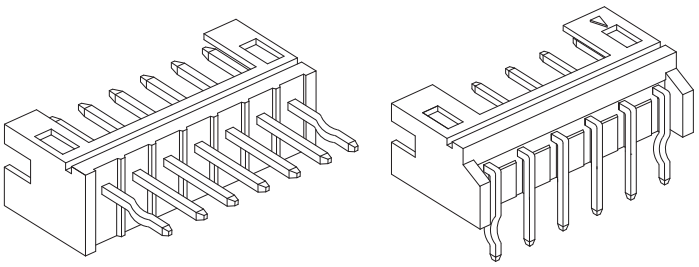


PART NUMBER	POSITIONS/ CONTACTS	A		B	
		mm	in	mm	in
SWH201-NULN-S02-UU-WH	02/02	2.00	0.079	4.40	0.173
SWH201-NULN-S03-UU-WH	03/03	4.00	0.157	6.40	0.252
SWH201-NULN-S04-UU-WH	04/04	6.00	0.236	8.40	0.331
SWH201-NULN-S05-UU-WH	05/05	8.00	0.315	10.40	0.409
SWH201-NULN-S06-UU-WH	06/06	10.00	0.394	12.40	0.488
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

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



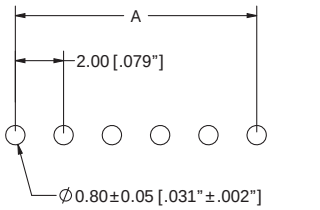
PART NUMBER OPTIONS

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

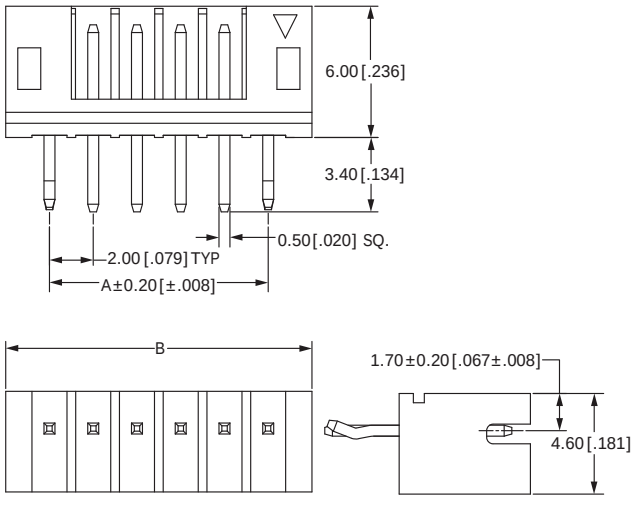


P.C. BOARD THICKNESS: 0.80 [.031"] - 1.60 [.063"]

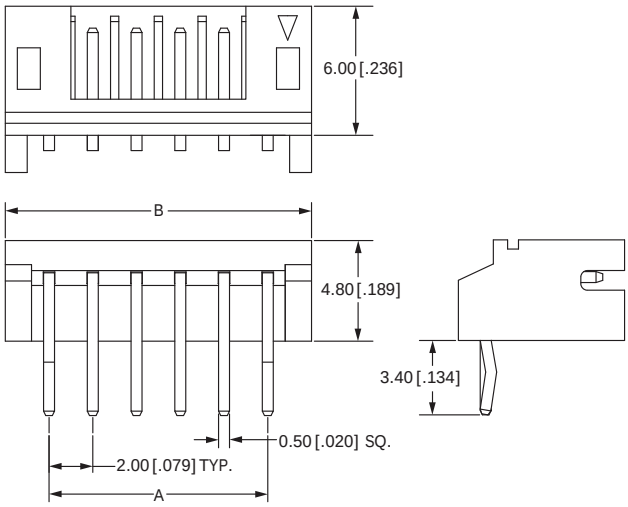
PART NUMBER	POSITIONS/ CONTACTS	A		B	
		mm	in	mm	in
SWR201-NRTN-S02-_ _-WH	02/02	2.00	0.079	5.90	0.232
SWR201-NRTN-S03-_ _-WH	03/03	4.00	0.157	7.90	0.311
SWR201-NRTN-S04-_ _-WH	04/04	6.00	0.236	9.90	0.390
SWR201-NRTN-S05-_ _-WH	05/05	8.00	0.315	11.90	0.469
SWR201-NRTN-S06-_ _-WH	06/06	10.00	0.394	13.90	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



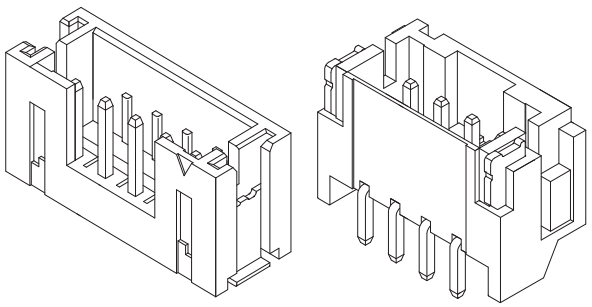
SWR201-NRTN-S_ _-RL-WH



SWR201 Series Single Row Wafer 2.00 mm [.079"] Contact Centers, SMT

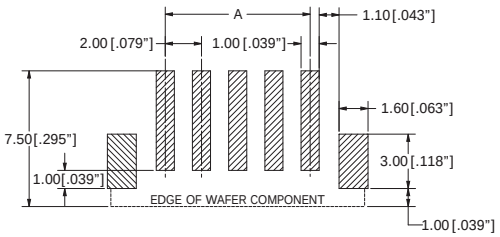
SPECIFICATIONS

- 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

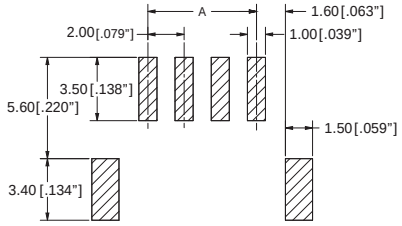


PCB LAYOUT

SWR201-NRTN-S_ _-SM-BG



SWR201-NRTN-S_ _-HM-BG



PART NUMBER OPTIONS

SWR201-NRTN-S16 -SM - BG

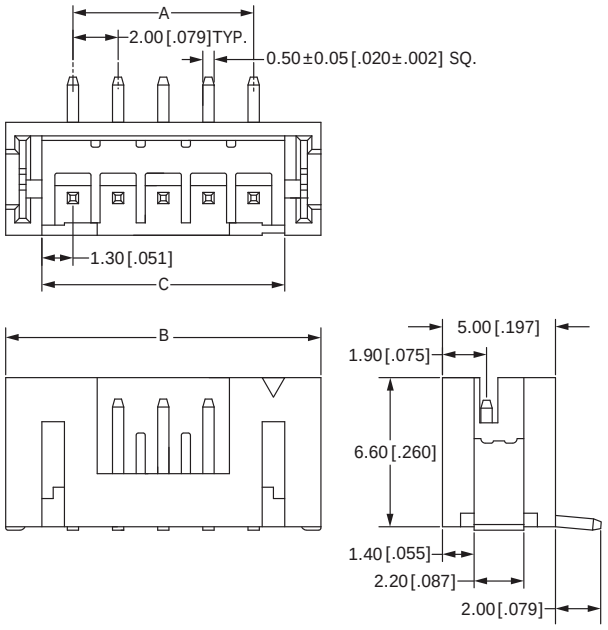
NUMBER OF POSITIONS
02 thru 16
See Chart Below

TERMINATION TYPE
SM = Surface Mount
HM = Horizontal Surface Mount

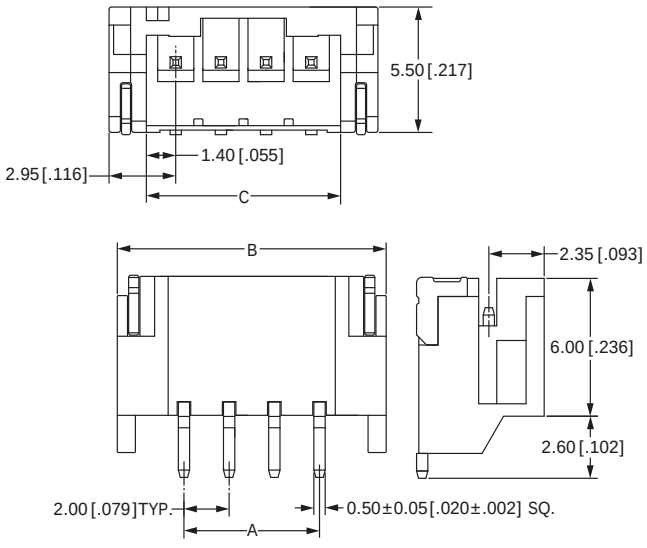
PART NUMBER	POSITIONS/ CONTACTS	A		B		C (SM)		C (HM)	
		mm	in	mm	in	mm	in	mm	in
SWR201-NRTN-S02-_ _-BG	02/02	2.00	0.079	8.00	0.315	4.60	0.181	4.80	0.189
SWR201-NRTN-S03-_ _-BG	03/03	4.00	0.157	10.00	0.394	6.60	0.260	6.80	0.268
SWR201-NRTN-S04-_ _-BG	04/04	6.00	0.236	12.00	0.472	8.60	0.339	8.80	0.346
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



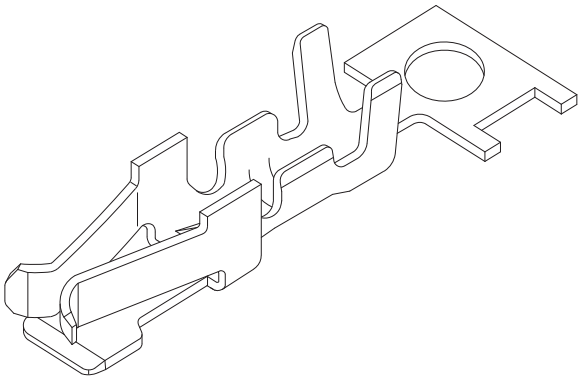
SWR201-NRTN-S_ _-HM-BG



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

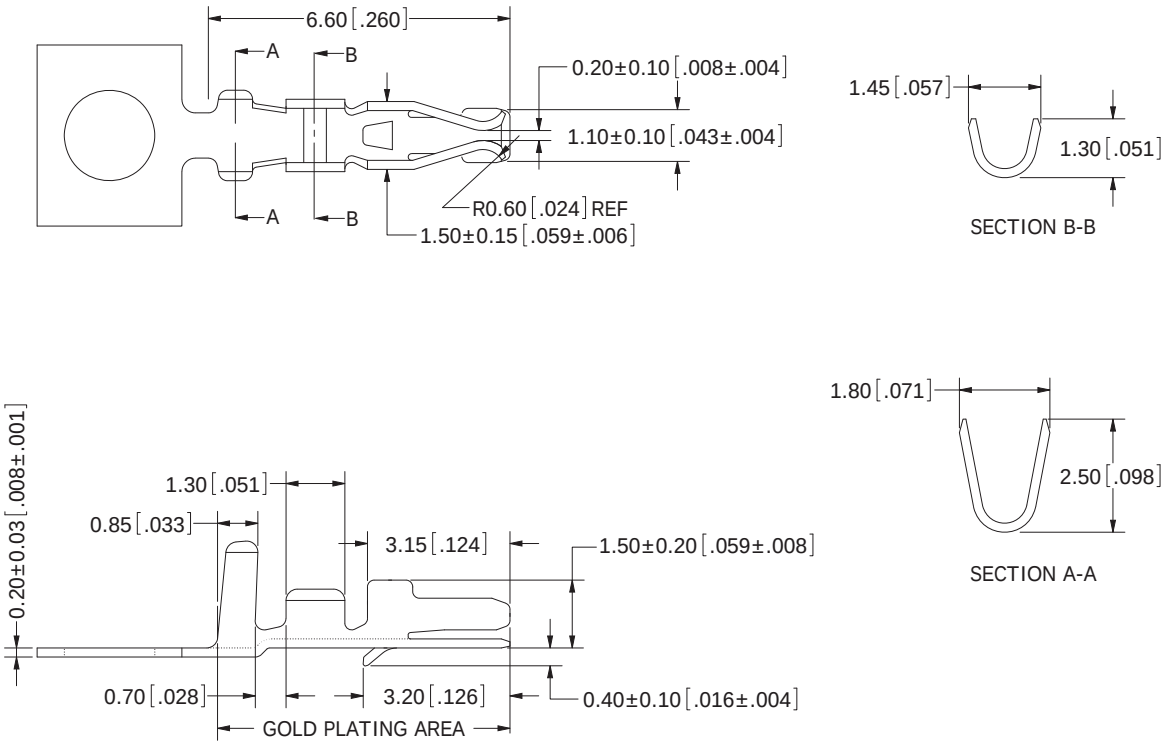
SWT204-UPTN-S01-UU-UU

CONTACT FINISH - RoHS Compliant

T = .000015" Min Nickel Underplate, .000040" Min Pure Tin, Bright Overall
P = .000040" Min Nickel Underplate, Gold Flash Overall

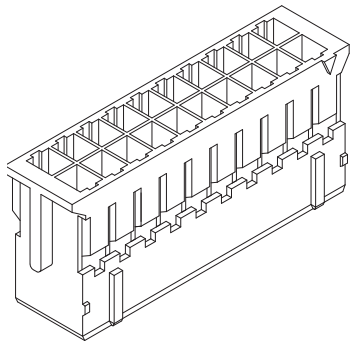
DIMENSIONS

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



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



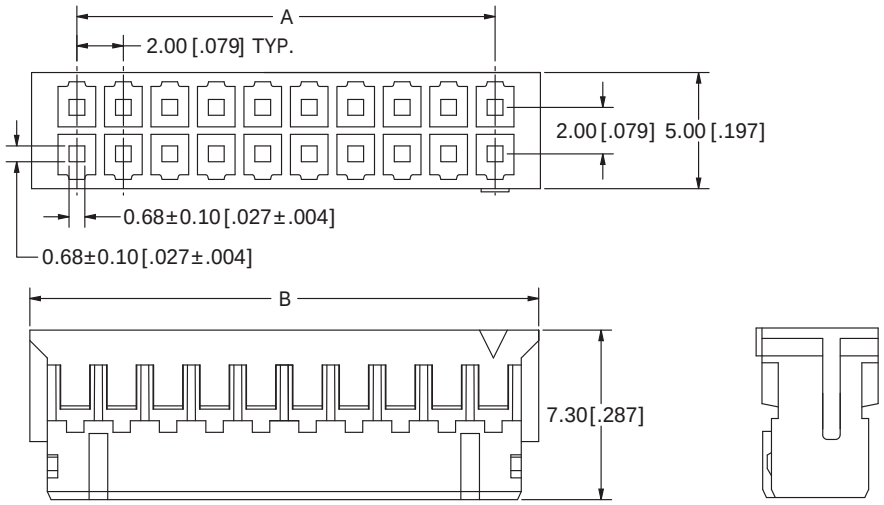
PART NUMBER OPTIONS

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.

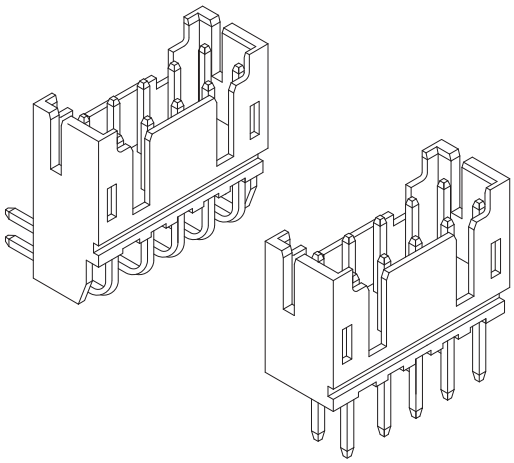


PART NUMBER	POSITIONS/ CONTACTS	A		B	
		mm	in	mm	in
SWH204-NULN-D02-UU-WH	02/04	2.00	0.079	5.90	0.232
SWH204-NULN-D03-UU-WH	03/06	4.00	0.157	7.90	0.311
SWH204-NULN-D04-UU-WH	04/08	6.00	0.236	9.90	0.390
SWH204-NULN-D05-UU-WH	05/10	8.00	0.315	11.90	0.469
SWH204-NULN-D06-UU-WH	06/12	10.00	0.394	13.90	0.547
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

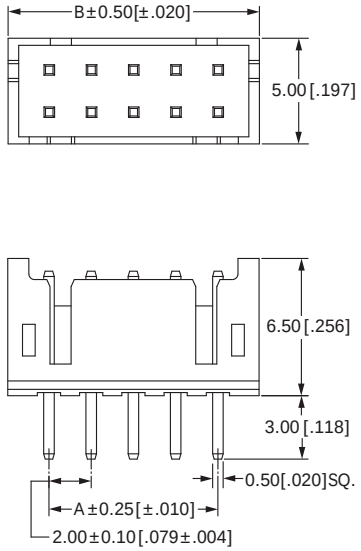
SPECIFICATIONS

- 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

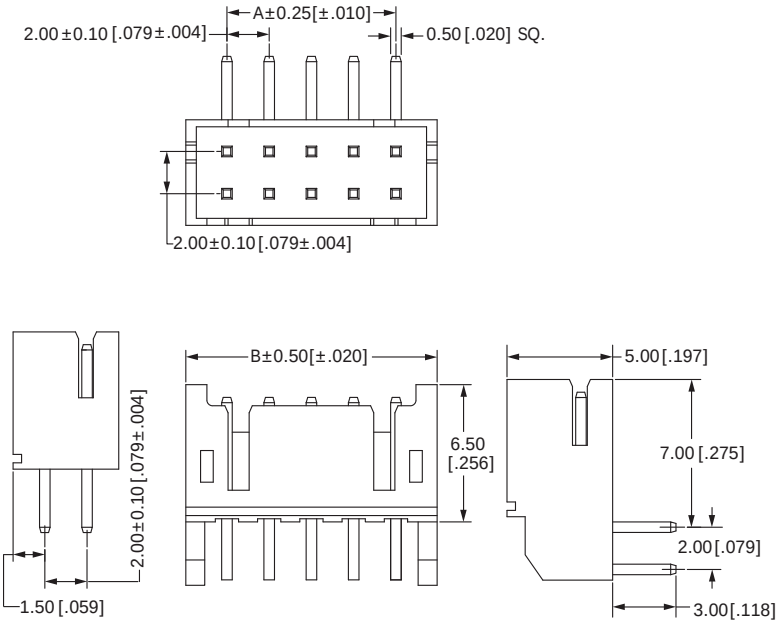


DIMENSIONS Dimensions in [ ] are in inches, all others are in millimeters.

SWR204-NRTN-D_ _-ST-GA



SWR204-NRTN-D_ _-RA-GA



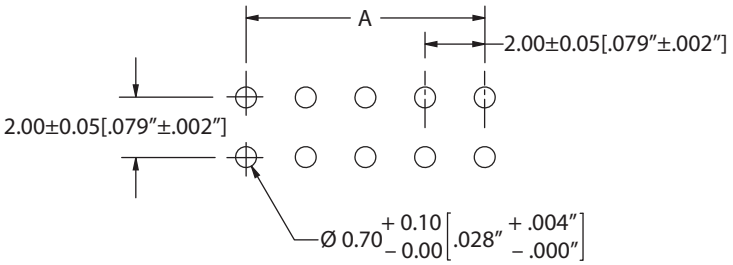
PART NUMBER OPTIONS

SWR204-NRTN-D16 -ST - GA

NUMBER OF POSITIONS
02 thru 17 & 20
See Chart Below

TERMINATION TYPE
ST = Straight
RA = Right Angle

PCB LAYOUT



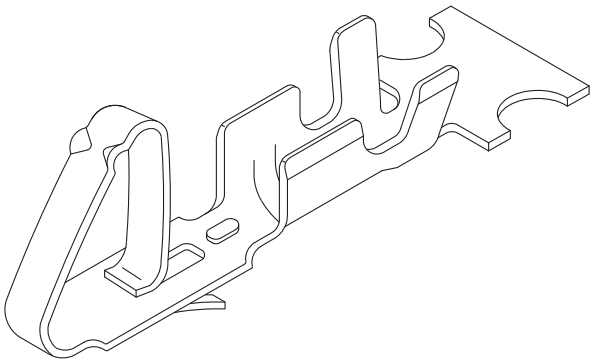
P.C. BOARD THICKNESS: 1.60 [.063"]

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: 2.5 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



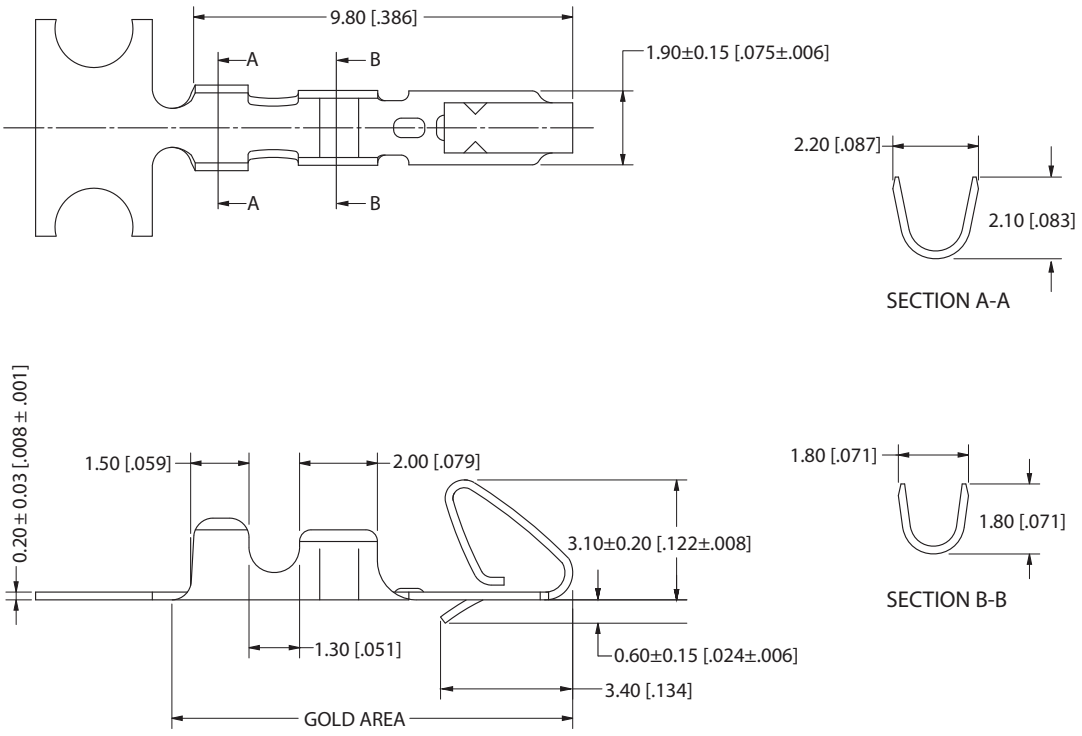
PART NUMBER OPTIONS

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

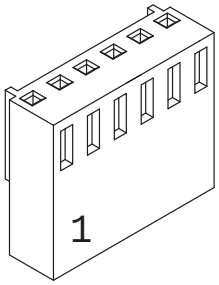
DIMENSIONS Dimensions in [ ] are in inches, all others are in millimeters.



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

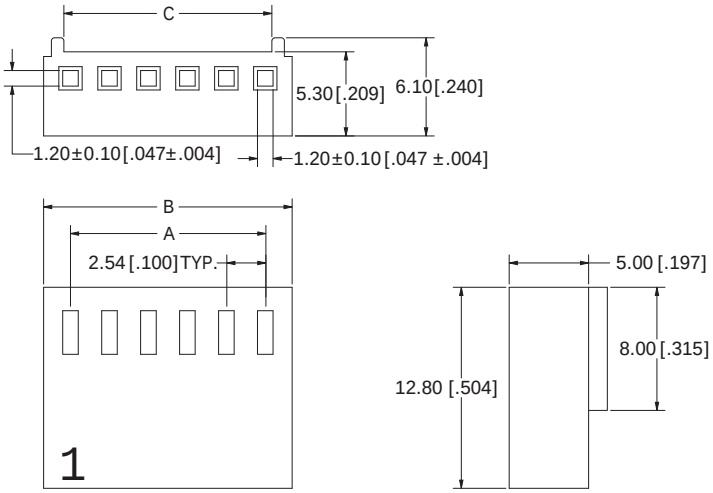


PART NUMBER OPTIONS

SWH25X-NULC-S16-UU-BA

NUMBER OF POSITIONS
02 thru 20

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



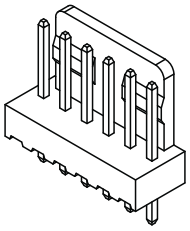
PART NUMBER	POSITIONS/ CONTACTS	A		B		C	
		mm	in	mm	in	mm	in
SWH25X-NULC-S02-UU-BA	02/02	2.54	0.100	5.79	0.228	3.07	0.121
SWH25X-NULC-S03-UU-BA	03/03	5.08	0.200	8.33	0.328	5.61	0.221
SWH25X-NULC-S04-UU-BA	04/04	7.62	0.300	10.87	0.428	8.15	0.321
SWH25X-NULC-S05-UU-BA	05/05	10.16	0.400	13.41	0.528	10.69	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

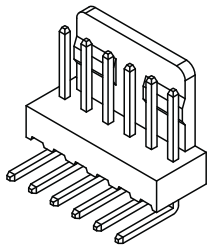
SPECIFICATIONS

- 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: 2.5 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

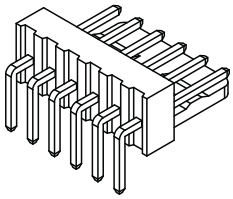
(ST) STRAIGHT



(RA) TYPE 2

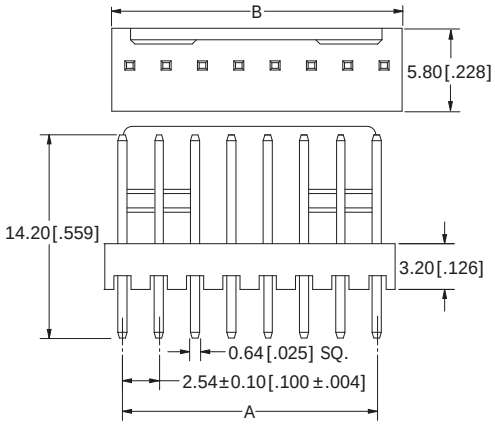


(RB) TYPE 1

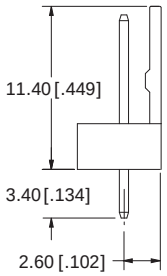


DIMENSIONS

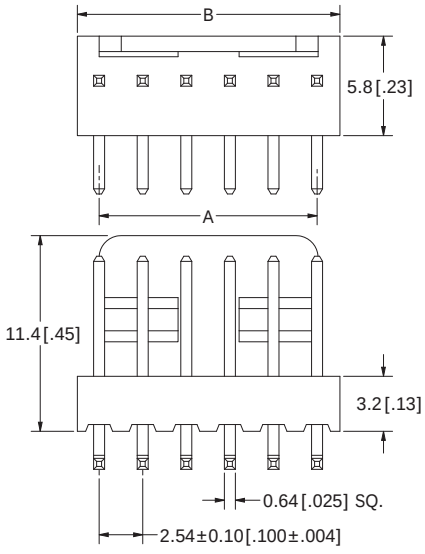
Dimensions in [ ] are in inches, all others are in millimeters.



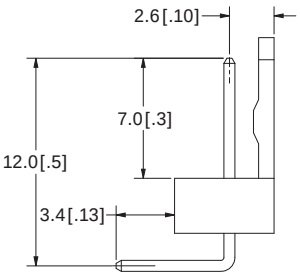
06 - 20 POSITIONS



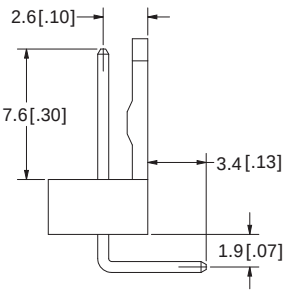
SWR25X-NRTC-S_ _-ST-BA



06-20 POSITIONS



SWR25X-NRTC-S_ _-RA-BA (TYPE 2)



SWR25X-NRTC-S_ _-RB-BA (TYPE 1)

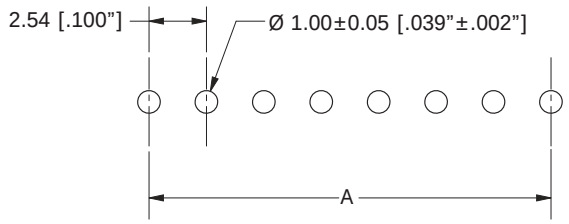
PART NUMBER OPTIONS

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