



REMOVABLE CONTACT TECHNICAL CHARACTERISTICS

SIZE 22 CONTACT

MATERIALS AND FINISHES:

Precision machined copper alloy. 0.000050 inch [1.27 microns] gold over copper plate. Other finishes are available; see page 95.

MECHANICAL CHARACTERISTICS:

Install contact to rear face of connector insert and remove from rear face of connector insert. Size 22 contacts, male – 0.030 inch [0.76 mm] mating diameter. Female contact - PosiBand closed entry design; see page 1 for details. Terminations for 20, 22, 24, 26, 28, and 30 AWG. Closed barrel crimp or solder.

ELECTRICAL CHARACTERISTICS:

For SDD series: For electrical characteristics, see page 14.
For SCBCD series: For electrical characteristics, see page 58.

SIZE 20 CONTACT

MATERIALS AND FINISHES:

Precision machined copper alloy. 0.000050 inch [1.27 microns] gold over copper plate. Other finishes are available; see page 95.

MECHANICAL CHARACTERISTICS:

Install contact to rear face of connector insert and remove from rear face of connector insert. Size 20 contact, male – 0.040 inch [1.02 mm] mating diameter. Female contact - PosiBand closed entry design; see page 1 for details. Terminations for 18, 20, 22, 24, 26, 28, and 30 AWG. Closed barrel crimp or solder.

ELECTRICAL CHARACTERISTICS:

For SND series: For electrical characteristics, see page 6.
For SCBC series: For electrical characteristics, see page 40.

SIZE 16 CONTACT



MATERIALS AND FINISHES:

Precision machined copper alloy. 0.000050 inch [1.27 microns] gold over copper plate. Other finishes are available; see page 95.

MECHANICAL CHARACTERISTICS:

Install contact to rear face of insulator, release from front face of insulator. Size 16 contacts, male – 0.062 inch [1.57mm] mating diameter. Female contact - PosiBand closed entry design; see page 1 for details. Terminations for 12, 14, 16, 18, 20, 22 and 24 AWG. Closed barrel crimp.

ELECTRICAL CHARACTERISTICS:

For electrical characteristics, see SCBCD series on page 58.

SIZE 8 CONTACT

MATERIALS AND FINISHES:

POWER: Precision machined copper alloy. 0.000050 inch [1.27 microns] gold over copper plate. Other finishes are available; see page 95.

HIGH VOLTAGE:

Insulator Material: PTFE teflon
Contacts: Precision machined copper alloy. 0.000050 inch [1.27 microns] gold over copper plate. Other finishes are available; see page 95.

SHIELDED:

Dielectric Material: PTFE teflon
Inner Contacts: Precision machined copper alloy. 0.000050 inch [1.27 microns] gold over copper plate. Other finishes are available; see page 95.
Outer Contacts: Precision machined copper alloy. 0.000050 inch [1.27 microns] gold over copper plate. Other finishes are available; see page 95.

MECHANICAL CHARACTERISTICS:

POWER:

Install contact to rear face of connector insert and remove from front face of connector insert. Size 8 contacts, male – 0.142 inch [3.61 mm] mating diameter. Female contact - features Large Surface Area (L.S.A.) closed entry design utilizing BeCu mechanical retention member. Closed barrel crimp.

SHIELDED:

Install contact to rear face of insulator and remove from front face of insulator. Size 8 contacts. See page 84 table of cable sizes for contact termination dimensions.

Durability:

500 cycles minimum.

Vibration:

20g from 10 Hz to 500 Hz.

Shock:

30g-11ms.

HIGH VOLTAGE:

Install contact to rear face of insulator and remove from front face of insulator. Size 8 contacts. Straight and right angle (90°) terminations. 0.041 inch [1.04 mm] minimum hole diameter.

Durability:

500 cycles minimum.

Vibration:

20g from 10 Hz to 500 Hz.

Shock:

30g-11ms.

ELECTRICAL CHARACTERISTICS:

POWER:

For electrical characteristics, see page 21.

SHIELDED:

Initial Contact Resistance: 0.008 ohms maximum.

Nominal Impedance: 50 ohms.

Insertion Loss: -0.46 dB at 1 GHz

-1.5 dB at 2 GHz

VSWR:

1.15 average at 1 GHz

1.56 average at 2 GHz

Above values measured using frequency domain techniques.

Proof Voltage:

1000 V r.m.s.

HIGH VOLTAGE:

Flash over Voltage: 3600 V r.m.s.

Proof Voltage: 2700 V r.m.s.

Initial Contact Resistance: 0.008 ohms maximum.

OPTIONAL PLATING FINISHES

-54

0.000100 [2.54 μ] gold over copper by adding “-54” suffix onto part number. Example: FC6026M2-54.

REELED CONTACTS:

Contacts may be supplied in plastic carriers, packaged in reels holding 2,000 contacts for use with the automatic pneumatic crimp tools, catalog part number 9550-1. The same type carrier is used for both male and female contacts.

All male and female crimp contacts can be ordered in reels by adding letter “R” after the contact part number, such as MC4008MR for a male contact and FC120N4R-50 for female contact.



Enlarged section of plastic contact carriers

For information regarding CRIMP TOOLS & CRIMPING TOOL TECHNIQUES, see page 96.



REMOVABLE CRIMP CONTACTS

FOR USE WITH SDD AND SCBCD SERIES CONNECTORS

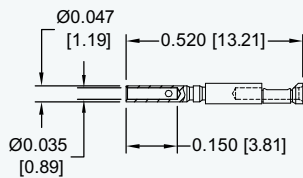
SIZE 22



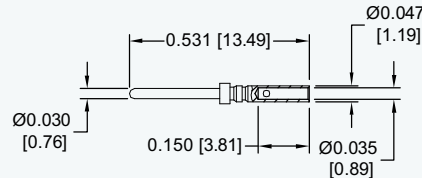
Note: Connectors can be kitted with all applicable crimp/solder contacts, contact Technical Sales for connector part number.



FEMALE CONTACT
"PosiBand" Closed Entry Design



MALE CONTACT



FEMALE PART NUMBER	WIRE SIZE AWG/[mm ²]
FC8022M2	22 / 24 / 26 / 28 / 30 [0.3/0.25/0.12/0.08/0.05]

MALE PART NUMBER	WIRE SIZE AWG/[mm ²]
MC8022M	22 / 24 / 26 / 28 / 30 [0.3/0.25/0.12/0.08/0.05]



REMOVABLE CRIMP CONTACT

FOR USE WITH SDD AND SCBCD SERIES CONNECTORS

CONTACTS USED WITH 20 AWG WIRE

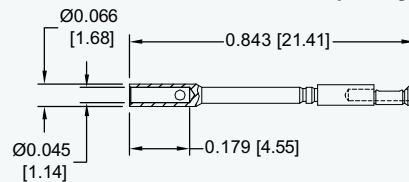
SIZE 22



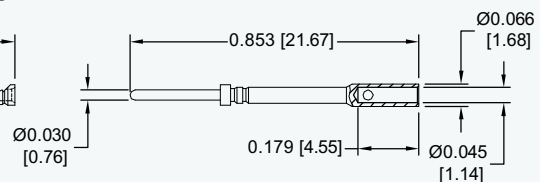
The crimp area of these contacts is not protected when fully seated in the connector molding. These contacts require shrink tubing after installation. Not suitable for fully loaded connector.

Note: Connectors can be kitted with all applicable crimp/solder contacts, contact Technical Sales for connector part number.

FEMALE CONTACT
"PosiBand" Closed Entry Design



MALE CONTACT



Crimp area extends above connector molding.



FEMALE PART NUMBER	WIRE SIZE AWG/[mm ²]
FC8020M2	20 [0.5] max



MALE PART NUMBER	WIRE SIZE AWG/[mm ²]
MC8020M	20 [0.5] max

For information regarding CRIMP TOOLS & CRIMPING TOOL TECHNIQUES, see page 96.



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REMOVABLE CONTACTS

MILITARY / SPACE FLIGHT QUALITY

High
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D-sub



REMOVABLE CLOSED BARREL SOLDER CONTACTS

FOR USE WITH SDD AND SCBCD SERIES CONNECTORS

SIZE 22

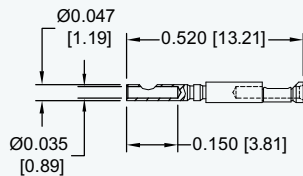


Note: Connectors can be kitted with all applicable crimp/solder contacts, contact Technical Sales for connector part number.

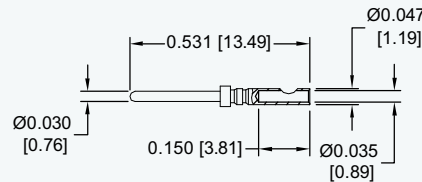


FEMALE CONTACT

"PosiBand" Closed Entry Design



MALE CONTACT



FEMALE PART NUMBER	WIRE SIZE AWG/[mm ²]
NEW! FS8022M2	22 [0.3] max

MALE PART NUMBER	WIRE SIZE AWG/[mm ²]
NEW! MS8022M	22 [0.3] max

REMOVABLE CRIMP CONTACT

FOR USE WITH SND AND SCBC SERIES CONNECTORS

SIZE 20

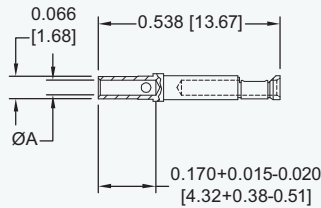


Note: Connectors can be kitted with all applicable crimp/solder contacts, contact Technical Sales for connector part number.

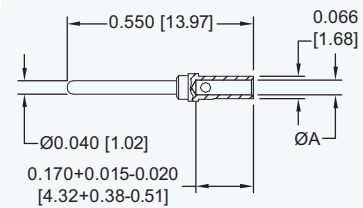


FEMALE CONTACT

"PosiBand" Closed Entry Design



MALE CONTACT



FEMALE PART NUMBER	WIRE SIZE AWG/[mm ²]	ØA
NEW! FC6020M2	20 / 22 / 24 [0.5/0.3/0.25]	0.045 [1.14]
NEW! FC6026M2	26 / 28 / 30 [0.12/0.08/0.05]	0.027 [0.69]

MALE PART NUMBER	WIRE SIZE AWG/[mm ²]	ØA
MC6020M	20 / 22 / 24 [0.5/0.3/0.25]	0.045 [1.14]
MC6026M	26 / 28 / 30 [0.12/0.08/0.05]	0.027 [0.69]

For information regarding CRIMP TOOLS & CRIMPING TOOL TECHNIQUES, see page 96.



REMOVABLE CRIMP CONTACT

FOR USE WITH SND AND SCBC SERIES CONNECTORS

CONTACTS USED WITH 18 AWG WIRE

SIZE 20



Authentic **POSITRONIC**
PosiBand

These contacts utilize authentic Positronic® PosiBand® technology.

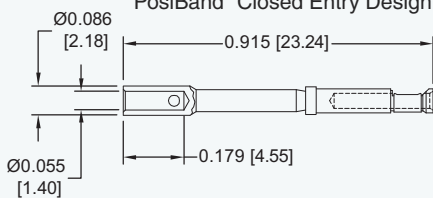
Note: Connectors can be kitted with all applicable crimp/solder contacts, contact Technical Sales for connector part number.

The crimp area of these contacts is not protected when fully seated in the connector molding. These contacts require shrink tubing after installation. Not suitable for fully loaded connector.

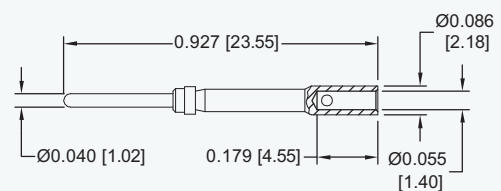


FEMALE CONTACT

“PosiBand” Closed Entry Design



MALE CONTACT



FEMALE PART NUMBER	WIRE SIZE AWG/[mm ²]
FC6018M2	18 [1.0] max

MALE PART NUMBER	WIRE SIZE AWG/[mm ²]
MC6018M	18 [1.0] max



REMOVABLE CLOSED BARREL SOLDER CONTACTS

FOR USE WITH SND AND SCBC SERIES CONNECTORS

SIZE 20



Authentic **POSITRONIC**
PosiBand

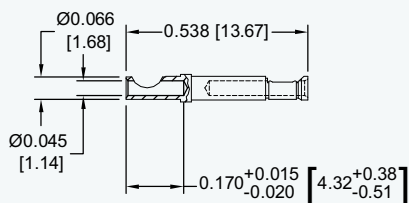
These contacts utilize authentic Positronic® PosiBand® technology.

Note: Connectors can be kitted with all applicable crimp/solder contacts, contact Technical Sales for connector part number.

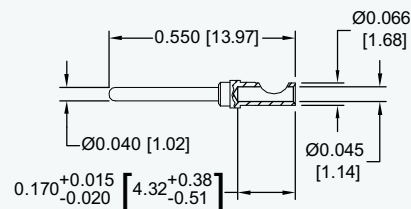


FEMALE CONTACT

“PosiBand” Closed Entry Design



MALE CONTACT



FEMALE PART NUMBER	WIRE SIZE AWG/[mm ²]
FS6020M2	20 [0.5] max



MALE PART NUMBER	WIRE SIZE AWG/[mm ²]
MS6020M	20 [0.5] max

For information regarding CRIMP TOOLS & CRIMPING TOOL TECHNIQUES, see page 96.



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REMOVABLE CONTACTS

MILITARY / SPACE FLIGHT QUALITY

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REMOVABLE CRIMP POWER CONTACT

FOR USE WITH SCBCD SERIES CONNECTORS

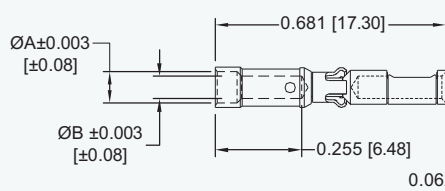
SIZE 16



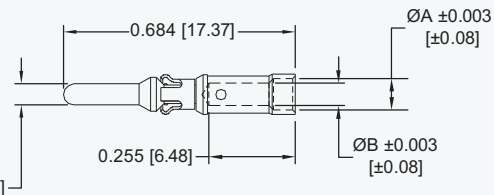
Note: Connectors can be kitted with all applicable crimp/solder contacts, contact Technical Sales for connector part number.

FEMALE CONTACT

“PosiBand” Closed Entry Design



MALE CONTACT



FEMALE PART NUMBER	WIRE SIZE [AWG] mm²	ØA	ØB
FC112N4-50	12 / [4.0]	N/A	0.098 [2.49]
FC114N4-50	14-16 [2.5-1.5]	0.105 [2.67]	0.081 [2.06]
FC116N4-50	16-18 [1.5-1.0]	0.093 [2.36]	0.067 [1.70]
FC120N4-50	20-22-24 [0.5-0.3-0.25]	0.065 [1.65]	0.045 [1.14]

MALE PART NUMBER	WIRE SIZE mm² [AWG]	ØA	ØB
MC112N-50-133.0	12 / [4.0]	N/A	0.098 [2.49]
MC114N-50-133.0	14-16 [2.5-1.5]	0.105 [2.67]	0.081 [2.06]
MC116N-50-133.0	16-18 [1.5-1.0]	0.093 [2.36]	0.067 [1.70]
MC120N-50-133.0	20-22-24 [0.5-0.3-0.25]	0.065 [1.65]	0.045 [1.14]

REMOVABLE CRIMP POWER CONTACT

FOR USE WITH SCBM, SCBC, SCBDD AND SCBCD SERIES CONNECTORS

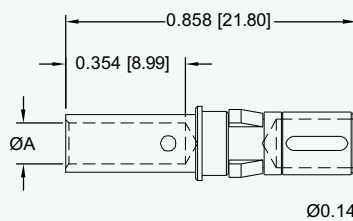
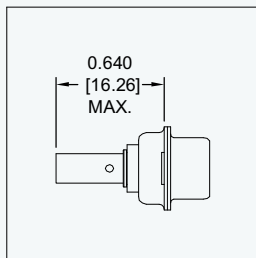
SIZE 8

For contact current rating, see page 21.

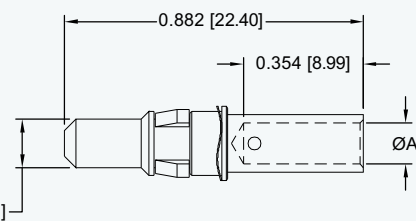
Note: Connectors can be kitted with all applicable crimp/solder contacts, contact Technical Sales for connector part number.

*1 FEMALE CONTACT

“CLOSED ENTRY” DESIGN, L.S.A.



MALE CONTACT



FEMALE PART NUMBER	WIRE SIZE [AWG] mm²	Ø A
FC4008M	8 [10.0]	0.181 [4.60]
FC4010M	10 [5.3]	0.122 [3.10]
FC4012M	12 [4.0]	0.101 [2.57]
FC4016M	16 [1.5]	0.067 [1.70]

MALE PART NUMBER	WIRE SIZE [AWG] mm²	Ø A
MC4008M	8 [10.0]	0.181 [4.60]
MC4010M	10 [5.3]	0.122 [3.10]
MC4012M	12 [4.0]	0.101 [2.57]
MC4016M	16 [1.5]	0.067 [1.70]

NOTE: *1 Female contacts feature Large Surface Area (L.S.A.) closed entry contact design which provides maximum mating surfaces between male and female contact and reduced contact resistance during operation.

For information regarding CRIMP TOOLS & CRIMPING TOOL TECHNIQUES, see page 96.

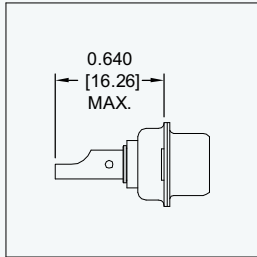


REMOVABLE SOLDER CUP POWER CONTACT
FOR USE WITH SCBM, SCBC, SCBDD AND SCBCD SERIES CONNECTORS

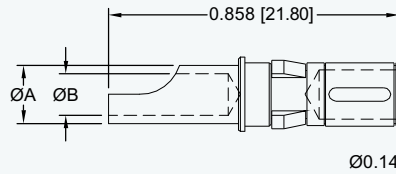
SIZE 8

For contact current rating, see page 21

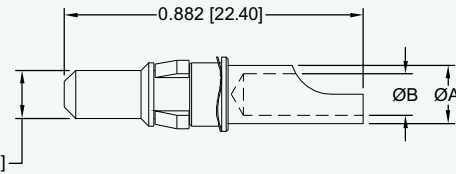
Note: Connectors can be kitted with all applicable crimp/solder contacts, contact Technical Sales for connector part number.



***1 FEMALE CONTACT**
"CLOSED ENTRY" DESIGN, L.S.A.



MALE CONTACT



FEMALE PART NUMBER	WIRE SIZE [AWG] mm ²	Ø A	Ø B
FS4008M	8 [10.0]	0.219 [5.56]	0.188 [4.78]
FS4012M	12 [4.0]	0.143 [3.63]	0.112 [2.84]
FS4016M	16 [1.5]	0.100 [2.54]	0.069 [1.75]

MALE PART NUMBER	WIRE SIZE [AWG] mm ²	Ø A	Ø B
MS4008M	8 [10.0]	0.219 [5.56]	0.188 [4.78]
MS4012M	12 [4.0]	0.143 [3.63]	0.112 [2.84]
MS4016M	16 [1.5]	0.100 [2.54]	0.069 [1.75]

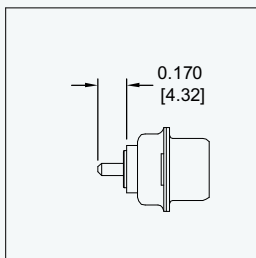
NOTE: *1 Female contacts feature Large Surface Area (L.S.A.) closed entry contact design which provides maximum mating surfaces between male and female contact and reduced contact resistance during operation.

STRAIGHT SOLDER PRINTED BOARD MOUNT POWER CONTACT
FOR USE WITH SCBM AND SCBDD SERIES CONNECTORS

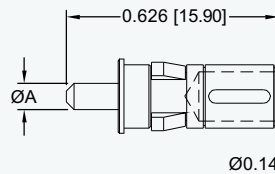
SIZE 8

For contact current rating, see page 21.

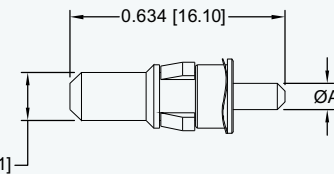
Note: Connectors can be kitted with all applicable crimp/solder contacts, contact Technical Sales for connector part number.



***1 FEMALE CONTACT**
"CLOSED ENTRY" DESIGN, L.S.A.



MALE CONTACT



FEMALE PART NUMBER	Ø A	CONTACT CODE
FDS4314M	0.078 [1.98]	35
NEW! FDS4312M	0.094 [2.39]	36
FDS4310M	0.125 [3.18]	37

MALE PART NUMBER	Ø A	CONTACT CODE
MDS4314M	0.078 [1.98]	35
NEW! MDS4312M	0.094 [2.39]	36
MDS4310M	0.125 [3.18]	37

NOTE: *1 Female contacts feature Large Surface Area (L.S.A.) closed entry contact design which provides maximum mating surfaces between male and female contact and reduced contact resistance during operation.

For information regarding CRIMP TOOLS & CRIMPING TOOL TECHNIQUES, see page 96.



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REMOVABLE CONTACTS

MILITARY / SPACE FLIGHT QUALITY

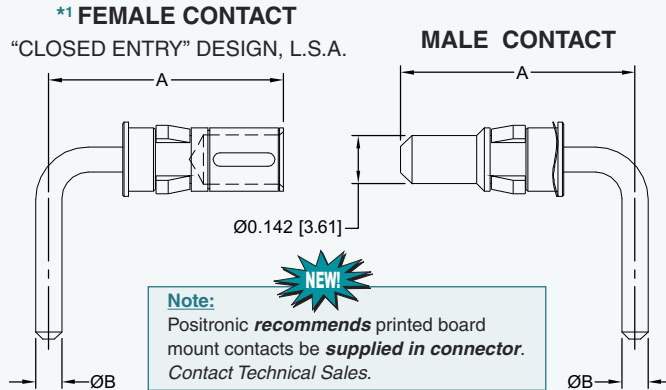
High
Performance
D-sub

RIGHT ANGLE (90°) PRINTED BOARD MOUNT POWER CONTACT

FOR USE WITH SCBM AND SCBDD SERIES CONNECTORS

SIZE 8

For contact current rating, see page 21



NOTE:

*1 Female contacts feature Large Surface Area (L.S.A.) closed entry contact design which provides maximum mating surfaces between male and female contact and reduced contact resistance during operation.

FEMALE PART NUMBER	A REF.	Ø B	C	SHELL SIZE	CONTACT CODE
FRT4314M	0.580 [14.73]	0.078 [1.98]	0.339 [8.61]	1, 2, 3 & 4	55
FRT4414M	0.692 [17.58]	0.078 [1.98]	0.451 [11.46]	5	55
FRT4714M	0.661 [16.79]	0.078 [1.98]	0.420 [10.67]	1, 2, 3 & 4	75
FRT4814M	0.773 [19.63]	0.078 [1.98]	0.520 [13.21]	5	75
FRT4310M	1.051 [26.70]	0.125 [3.18]	0.810 [20.57]	1, 2, 3 & 4	57, 77
FRT4410M	1.051 [26.70]	0.125 [3.18]	0.810 [20.57]	5	57, 77

MALE PART NUMBER	A REF.	Ø B	C	SHELL SIZE	CONTACT CODE
MRT4314M	0.580 [14.73]	0.078 [1.98]	0.339 [8.61]	1, 2, 3 & 4	55
MRT4414M	0.692 [17.58]	0.078 [1.98]	0.451 [11.46]	5	55
MRT4714M	0.661 [16.79]	0.078 [1.98]	0.420 [10.67]	1, 2, 3 & 4	75
MRT4814M	0.773 [19.63]	0.078 [1.98]	0.520 [13.21]	5	75
MRT4310M	1.051 [26.70]	0.125 [3.18]	0.810 [20.57]	1, 2, 3 & 4	57, 77
MRT4410M	1.051 [26.70]	0.125 [3.18]	0.810 [20.57]	5	57, 77

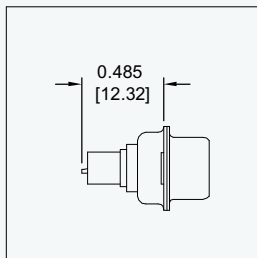
Note: Connectors can be kitted with all applicable crimp/solder contacts, contact Technical Sales for connector part number.

REMOVABLE HIGH VOLTAGE POWER CONTACT

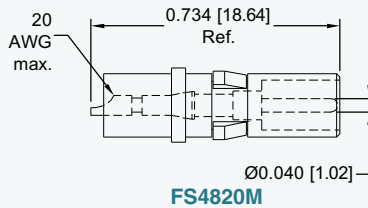
FOR USE WITH SCBM, SCBC, SCBDD AND SCBCD SERIES CONNECTORS

SIZE 8

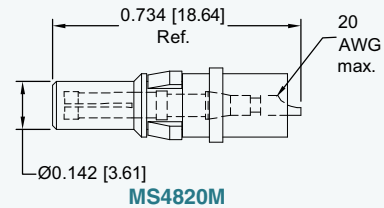
STRAIGHT SOLDER WIRE TERMINATION



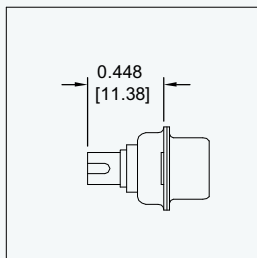
FEMALE CONTACT



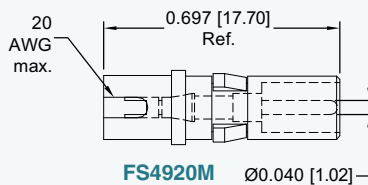
MALE CONTACT



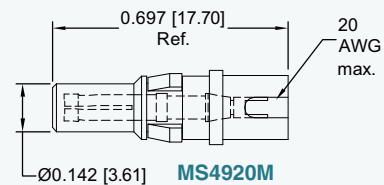
RIGHT ANGLE (90°) SOLDER WIRE TERMINATION



FEMALE CONTACT



MALE CONTACT



For information regarding CRIMP TOOLS & CRIMPING TOOL TECHNIQUES, see page 96.

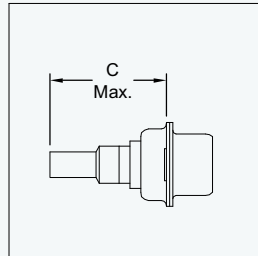


REMOVABLE SHIELDED CONTACT

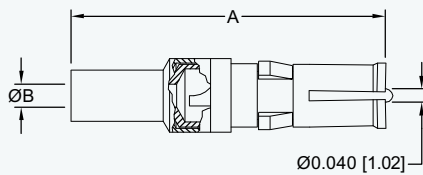
FOR USE WITH SCBM, SCBC, SCBDD AND SCBCD SERIES CONNECTORS

SIZE 8

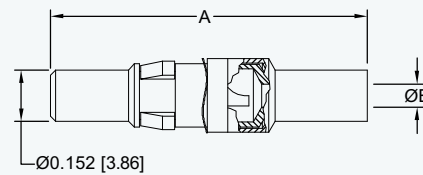
STRAIGHT SOLDER/CRIMP CONTACTS



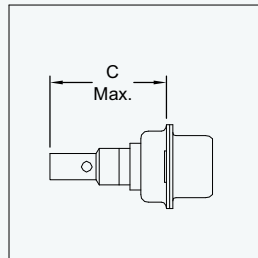
FEMALE CONTACT



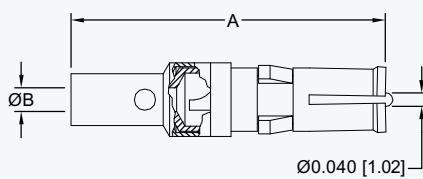
MALE CONTACT



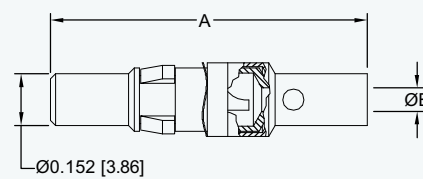
STRAIGHT SOLDER/SOLDER CONTACTS



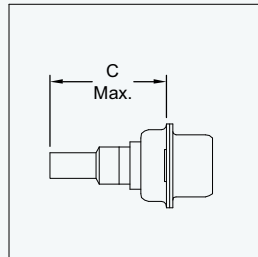
FEMALE CONTACT



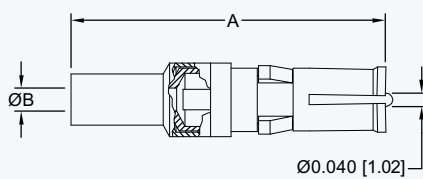
MALE CONTACT



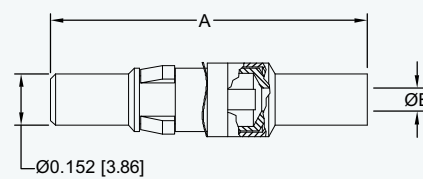
STRAIGHT CRIMP/CRIMP CONTACTS



FEMALE CONTACT



MALE CONTACT



TYPE OF CONTACT	FEMALE PART NUMBER	MALE PART NUMBER	A	Ø B	C MAX.	RG CABLE NUMBER
SOLDER/CRIMP	FC4101M	MC4101M	0.929 [23.60]	0.040 [1.02]	0.739 [18.77]	178 B/U 196 B/U
	FC4102M	MC4102M	0.929 [23.60]	0.067 [1.70]	0.739 [18.77]	179 B/U 316 /U
	FC4103M	MC4103M	1.037 [26.34]	0.108 [2.74]	0.847 [21.51]	180 B/U
	FC4104M	MC4104M	1.037 [26.34]	0.120 [3.05]	0.847 [21.51]	58 B/U
SOLDER/SOLDER	FS4101M	MS4101M	0.929 [23.60]	0.040 [1.02]	0.739 [18.77]	178 B/U 196 B/U
	FS4102M	MS4102M	0.929 [23.60]	0.067 [1.70]	0.739 [18.77]	179 B/U 316 /U
	FS4103M	MS4103M	1.037 [26.34]	0.108 [2.74]	0.847 [21.51]	180 B/U
	FS4104M	MS4104M	1.037 [26.34]	0.120 [3.05]	0.847 [21.51]	58 B/U
CRIMP/CRIMP	FCC4101M	MCC4101M	0.929 [23.60]	0.040 [1.02]	0.739 [18.77]	178 B/U 196 B/U
	FCC4102M	MCC4102M	0.929 [23.60]	0.067 [1.70]	0.739 [18.77]	179 B/U 316 /U
	FCC4103M	MCC4103M	1.037 [26.34]	0.108 [2.74]	0.847 [21.51]	180 B/U
	FCC4104M	MCC4104M	1.037 [26.34]	0.120 [3.05]	0.847 [21.51]	58 B/U

Note: Connectors can be kitted with all applicable crimp/solder contacts, contact Technical Sales for connector part number.



SHIELDED CONTACTS

Two-step crimping action for signal and shielding conductors.

For information regarding CRIMP TOOLS & CRIMPING TOOL TECHNIQUES, see page 96.



Positronic Industries
connectpositronic.com

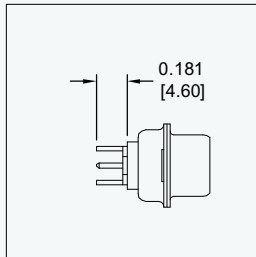


REMOVABLE CONTACTS

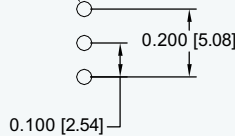
MILITARY / SPACE FLIGHT QUALITY

High
Performance
D-sub

STRAIGHT SOLDER PRINTED BOARD MOUNTED SHIELDED CONTACT FOR USE WITH SCBM AND SCBDD SERIES CONNECTORS SIZE 8

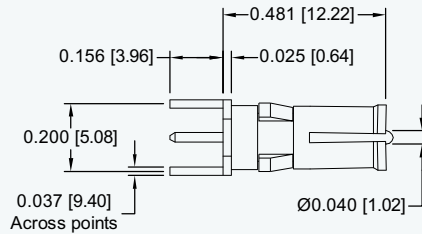


Suggest $\varnothing 0.045$
[1.14] hole



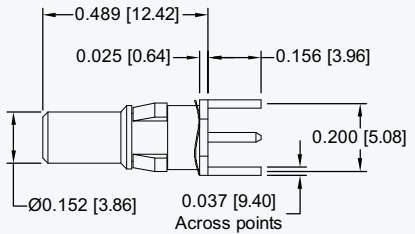
CONTACT HOLE PATTERN

FEMALE CONTACT



FDS4201M

MALE CONTACT



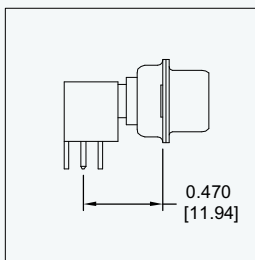
MDS4201M



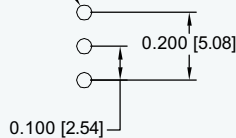
Note:

Positronic **recommends** printed board mount contacts be **supplied in connector**.
Contact Technical Sales.

RIGHT ANGLE (90°) PRINTED BOARD MOUNT SHIELDED CONTACTS FOR USE WITH SCBM AND SCBDD SERIES CONNECTORS SIZE 8

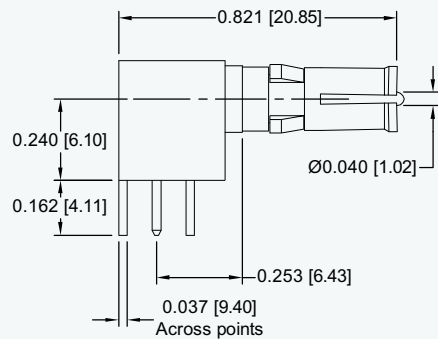


Suggest $\varnothing 0.045$
[1.14] hole



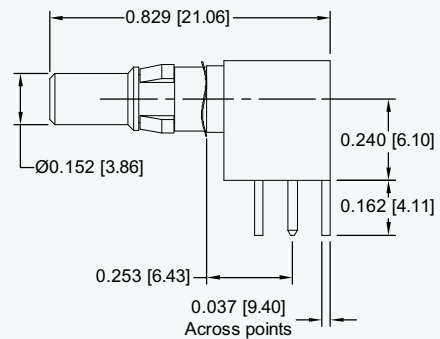
CONTACT HOLE PATTERN

FEMALE CONTACT



FRT4201M

MALE CONTACT



MRT4201M



Note:

Positronic **recommends** printed board mount contacts be **supplied in connector**.
Contact Technical Sales.

For information regarding CRIMP TOOLS & CRIMPING TOOL TECHNIQUES, see page 96.