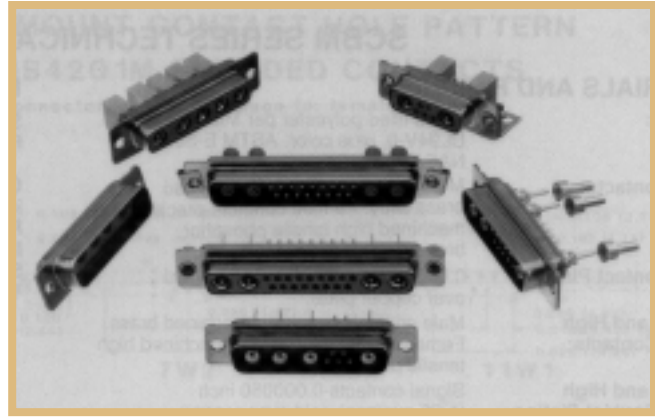


Size 20 Signal Contacts,
Fixed Solder Cup and
Printed Board Mountable

Size 8 Shielded and Power
Removable, Printed Board
Mountable

Space Application
Quality Connectors



Space Combination Contact Subminiature-D connectors, Series SCBM, are space flight application quality rectangular connectors designed especially to withstand the rigors of launch and subsequent extended space flight. The SCBM Series features fixed contacts having solder cup terminations and printed board mount terminations for panel mounting and 90° and straight printed board applications.

The materials, dimensions, and performance of the SCBM Series conform to the requirements of DESC drawing 85039 and GSFC S-311-P-10 where applicable. The SCBM Series fully complies to the outgassing requirements

of ASTM E-595 and NASA-RP-1124.

The SCBM Series utilizes precision machined contacts with the female contact featuring a "Closed-Entry" design having a brass protective shroud.

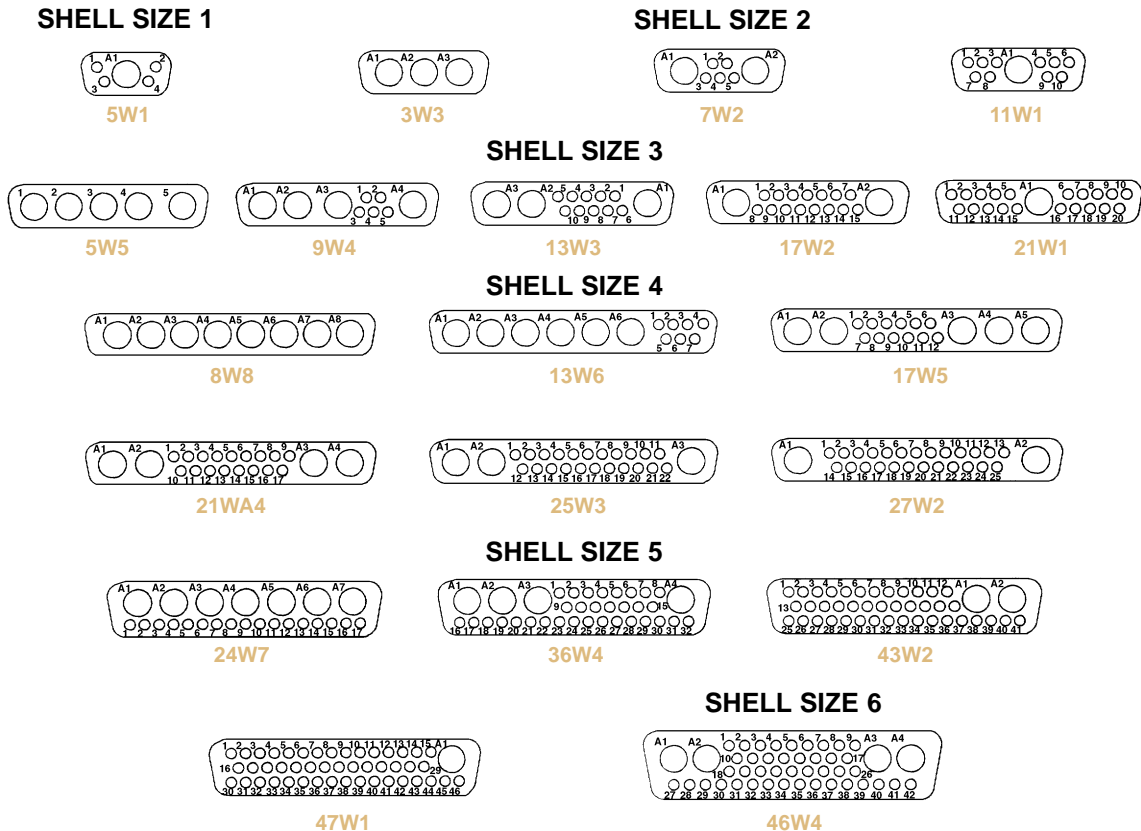
Twenty standard combination contact variants are available, utilizing six shell sizes. Each connector variant is offered with contact terminations for solder cup and 90° terminations for printed board mounting.

Nonmagnetic cable supports and jackscrew systems are available.

Visual and mechanical inspection per MIL-DTL-24308 is performed, additional testing is available. Contact Technical Sales.

SCBM SERIES CONTACT VARIANTS

FACE VIEW OF MALE OR REAR VIEW OF FEMALE



SCBM SERIES TECHNICAL CHARACTERISTICS

MATERIALS AND FINISHES:

Insulator:	Glass-filled polyester per MIL-M-24519, UL 94V-0, ASTM E-595, NASA-RP-1124, blue color.
Signal Contacts:	Male Contacts: Precision machined brass alloy. Female Contacts: Precision machined high tensile phosphor bronze with brass shroud.
Signal Contact Plating:	0.000050 inch (1.25 microns) gold over copper plate.
Power Contacts:	Machined of high conductivity copper alloy for both male and female contacts.
Power Contact Plating:	0.000050 inch (1.25 microns) gold over copper plate.
Shielded Contacts:	Male Contacts: Precision machined brass. Female Contacts: Precision machined high tensile phosphor bronze.
Shielded Contact Plating:	Signal Contacts: 0.000050 inch (1.25 microns) gold over copper plate.
Shells:	Brass with 0.000050 inch (1.25 microns) gold over copper plate.
Mounting Spacers and Brackets:	Brass with 0.000050 inch (1.25 microns) gold over copper plate.
Push-On Fasteners:	Phosphor bronze or beryllium copper with 0.000050 inch (1.25 microns) gold over copper plate.
Jackscrew Systems:	Brass with 0.000050 inch (1.25 microns) gold over copper plate.
Hoods:	Brass with 0.000050 inch (1.25 microns) gold over copper plate or aluminum yellow chromate conversion or black anodize.

ELECTRICAL CHARACTERISTICS:

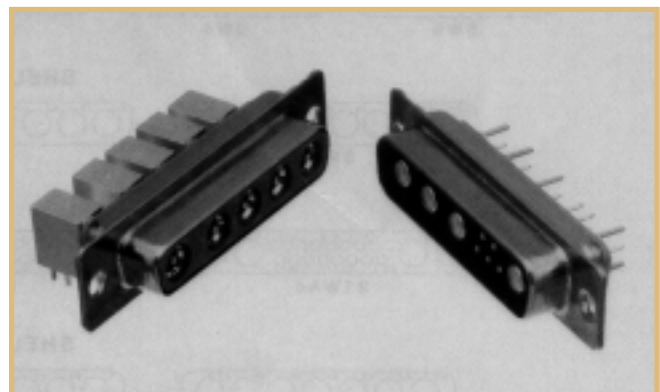
SIGNAL CONTACTS:	
Contact Current Rating:	7.5 amps, nominal.
Initial Contact Resistance:	0.008 ohms, maximum.
Proof Voltage:	1,000 V r.m.s.
POWER CONTACTS:	
Contact Current Rating:	10, 15, 20, 30, and 40 amperes, nominal.
Initial Contact Resistance:	0.005 ohms, maximum.
Proof Voltage:	1,000 V r.m.s.
SHIELDED CONTACTS:	
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:	1,000 V r.m.s.
CONNECTOR:	
Insulator Resistance:	5 G ohms.
Creepage and Clearance Distance:	0.039 inch (1.0 mm), minimum.
Working Voltage:	300 V r.m.s.
Residual Magnetism:	20 Gamma, maximum.

CLIMATIC CHARACTERISTICS:

Temperature Range:	-55°C to +125°C.
Damp Heat, Steady State:	21 days.

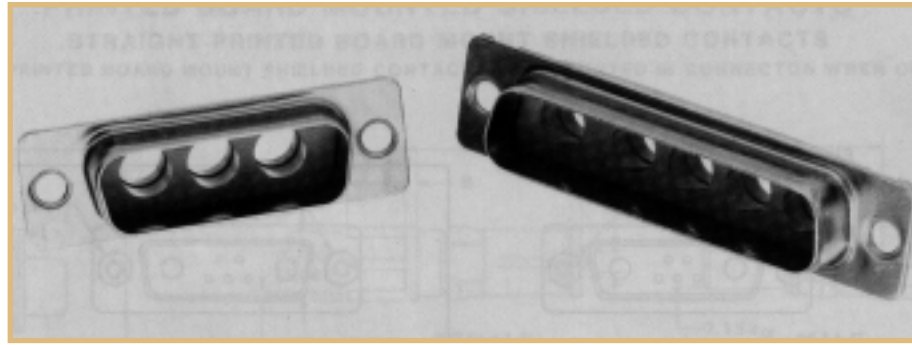
MECHANICAL CHARACTERISTICS:

Signal Contacts, Fixed:	Size 20 contacts. Male Contact: 0.040 inch (1.02 mm) diameter. Female Contact: Closed entry design with brass shroud.
Contact Retention in Insulator:	Signal Contacts: 9 lbs. (40N). Power, and Shielded Contacts: 22 lbs. (98N).
Resistance to Solder Iron Heat:	500°F (260°C) for 10 seconds duration per IEC 512-6.
Signal Contact Terminations:	
Solder Contacts:	0.042 inch (1.06 mm) minimum hole diameter for 20 AWG (0.5 mm ²) wire, maximum.
Straight Printed Board Mount:	0.028 inch (0.71 mm) diameter.
90° Printed Board Mount:	0.028 inch (0.71 mm) diameter.
Power Contacts, Removable, Crimp or Solder Terminations:	Size 8 contacts. Male Contact: 0.142 inch (3.61 mm) diameter. Female Contact: Features Large Surface Area (L.S.A.) Closed entry design utilizing BeCu mechanical retention member. Male and female contacts have terminations for wire sizes 8, 12, and 16 AWG.
Power Contacts, Printed Board Mount:	Size 8 contact. Male Contact: 0.142 inch (3.61 mm) diameter. Printed board terminations with 0.078 inch (1.98 mm) and 0.125 inch (3.18 mm) diameters.
Shielded Contacts, Removable:	See table of maximum cable sizes for contact termination dimensions, pages 34 and 35.
Shells:	Male shells may be dimpled for EM/ESD ground paths.
Polarization:	Trapezoidally shaped shells and polarized jackscrews.
Mounting to Angle Brackets:	Jackscrews and riveted fasteners with 0.120 inch (3.05 mm) diameter hole, and threaded riveted fasteners with 4-40 threads and polyester inserts.
Mounting to Printed Board:	Rapid installation push-on fasteners and threaded posts.
Locking Systems:	Jackscrews.
Mechanical Operations:	1,000 operations per IEC 512-5.



SCBM5W5F85000G

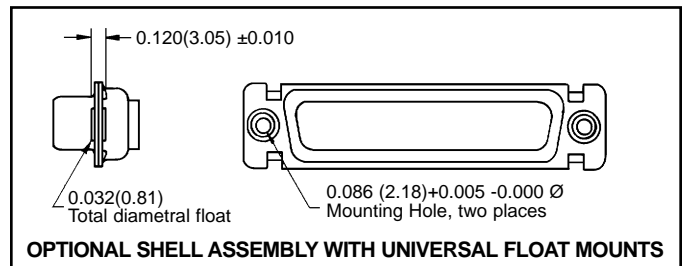
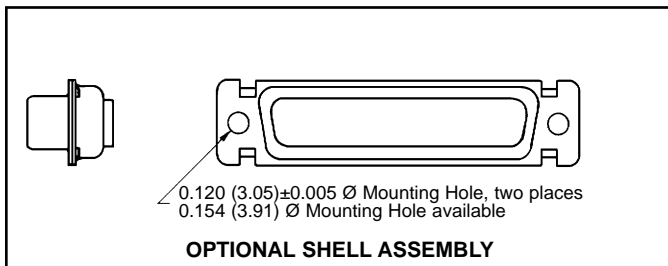
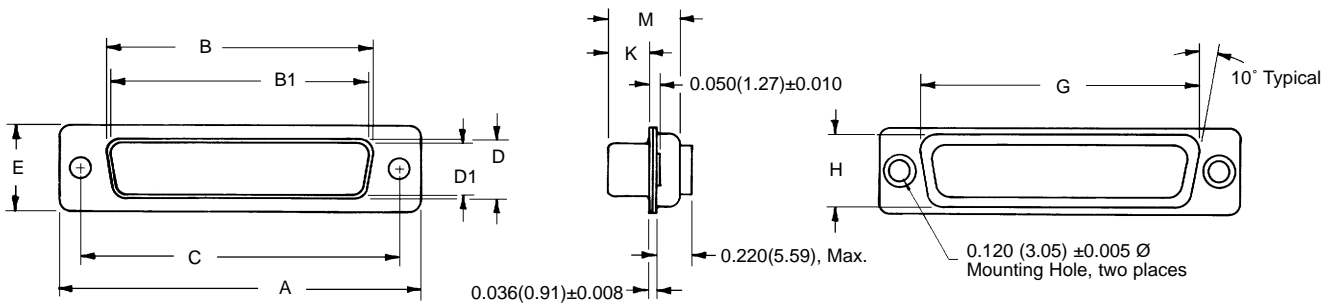
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SCBM3W3M0000G

SCBM5W5M0000G

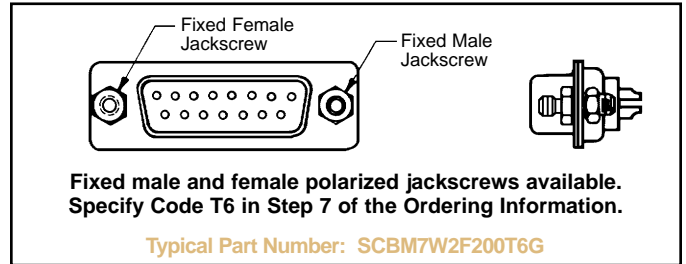
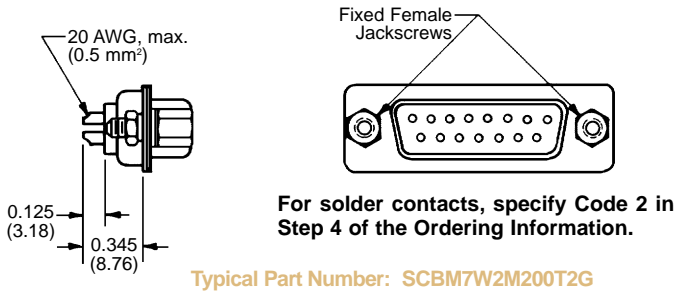
STANDARD SHELL ASSEMBLY



SHELL SIZE	A ±0.015	B ±0.005	B1 ±0.005	C ±0.005	D ±0.005	D1 ±0.005	E ±0.015	G ±0.010	H ±0.010	K ±0.005	M ±0.010
SHELL SIZE 1 MALE	1.213 (30.81)		0.666 (16.92)	0.984 (24.99)		0.329 (8.36)	0.494 (12.55)	0.759 (19.28)	0.422 (10.72)	0.233 (5.92)	0.422 (10.72)
SHELL SIZE 1 FEMALE	1.213 (30.81)	0.643 (16.33)		0.984 (24.99)	0.311 (7.90)		0.494 (12.55)	0.759 (19.28)	0.422 (10.72)	0.243 (6.17)	0.429 (10.90)
SHELL SIZE 2 MALE	1.541 (39.14)		0.994 (25.25)	1.312 (33.32)		0.329 (8.36)	0.494 (12.55)	1.083 (27.51)	0.422 (10.72)	0.233 (5.92)	0.422 (10.72)
SHELL SIZE 2 FEMALE	1.541 (39.14)	0.971 (24.66)		1.312 (33.32)	0.311 (7.90)		0.494 (12.55)	1.083 (27.51)	0.422 (10.72)	0.243 (6.17)	0.429 (10.90)
SHELL SIZE 3 MALE	2.088 (53.04)		1.534 (38.96)	1.852 (47.04)		0.329 (8.36)	0.494 (12.55)	1.625 (41.28)	0.422 (10.72)	0.230 (5.84)	0.426 (10.82)
SHELL SIZE 3 FEMALE	2.088 (53.04)	1.511 (38.38)		1.852 (47.04)	0.311 (7.90)		0.494 (12.55)	1.625 (41.28)	0.422 (10.72)	0.243 (6.17)	0.429 (10.90)
SHELL SIZE 4 MALE	2.729 (69.32)		2.182 (55.42)	2.500 (63.50)		0.329 (8.36)	0.494 (12.55)	2.272 (57.71)	0.422 (10.72)	0.230 (5.84)	0.426 (10.82)
SHELL SIZE 4 FEMALE	2.729 (69.32)	2.159 (54.84)		2.500 (63.50)	0.311 (7.90)		0.494 (12.55)	2.272 (57.71)	0.422 (10.72)	0.243 (6.17)	0.429 (10.90)
SHELL SIZE 5 MALE	2.635 (66.93)		2.079 (52.81)	2.406 (61.11)		0.441 (11.20)	0.605 (15.37)	2.178 (55.32)	0.534 (13.56)	0.230 (5.84)	0.426 (10.82)
SHELL SIZE 5 FEMALE	2.635 (66.93)	2.064 (52.43)		2.406 (61.11)	0.423 (10.74)		0.605 (15.37)	2.178 (55.32)	0.534 (13.56)	0.243 (6.17)	0.429 (10.90)
SHELL SIZE 6 MALE	2.729 (69.32)		2.212 (56.18)	2.500 (63.50)		0.503 (12.78)	0.668 (16.97)	2.302 (58.47)	0.596 (15.14)	0.230 (5.84)	0.426 (10.82)
SHELL SIZE 6 FEMALE	2.729 (69.32)	2.189 (55.60)		2.500 (63.50)	0.485 (12.32)		0.668 (16.97)	2.302 (58.47)	0.596 (15.14)	0.243 (6.17)	0.429 (10.90)

DIMENSIONS ARE IN INCHES (MILLIMETERS). ALL DIMENSIONS ARE SUBJECT TO CHANGE.

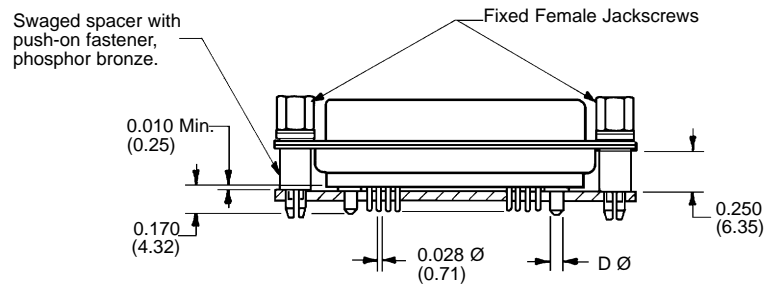
SOLDER CONNECTOR



STRAIGHT PRINTED BOARD MOUNT CONNECTOR WITH SIZE 8 CONTACTS

CODE NUMBER	D Ø
3	-----
35	0.078 (1.98)
37	0.125 (3.18)

For straight printed board mount contacts, specify Code Number in Step 4 of the Ordering Information.



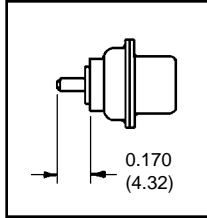
SCBM21WA4M2000G WITH MS4820M

SCBM21WA4F65S00G

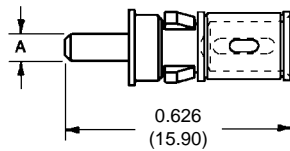
PRINTED BOARD MOUNTED POWER CONTACTS

STRAIGHT PRINTED BOARD MOUNT POWER CONTACTS

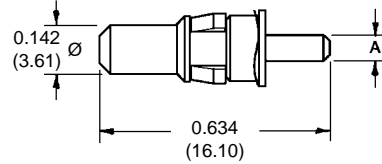
Straight printed board mount power contacts are mounted in connector when ordered.



*FEMALE CLOSED ENTRY, L.S.A.



MALE



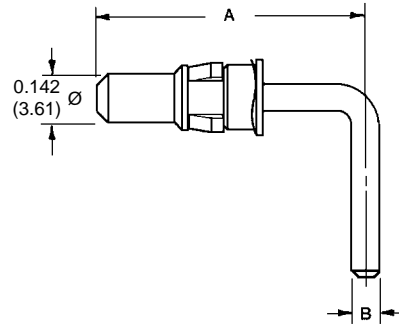
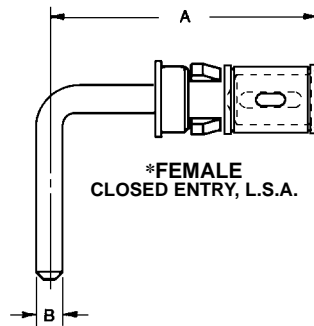
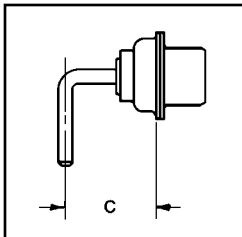
PART NUMBER	A Ø	CURRENT RATING
FDS4314M	0.078 (1.98)	15 Amps.
FDS4310M	0.125 (3.18)	30 Amps.

PART NUMBER	A Ø	CURRENT RATING
MDS4314M	0.078 (1.98)	15 Amps.
MDS4310M	0.125 (3.18)	30 Amps.

Material - High conductivity copper alloy.
Plating - 0.000050 inch (1.25µ) gold over copper.

RIGHT ANGLE PRINTED BOARD MOUNT POWER CONTACTS

Right angle printed board mount power contacts are mounted in connector when ordered.



PART NUMBER	CURRENT	A REF.	B Ø	C	SHELL SIZE	BEND CODE
FRT4314M	15 Amps	0.580 (14.73)	0.078 (1.98)	0.339 (8.61)	1, 2, 3 & 4	55
FRT4414M	15 Amps	0.692 (17.58)	0.078 (1.98)	0.451 (11.46)	5	55
FRT4714M	15 Amps	0.661 (16.79)	0.078 (1.98)	0.420 (10.67)	1, 2, 3 & 4	75
FRT4814M	15 Amps	0.773 (19.63)	0.078 (1.98)	0.520 (13.21)	5	75
FRT4310M	30 Amps	1.036 (26.31)	0.125 (3.18)	0.810 (20.57)	1, 2, 3 & 4	*
FRT4410M	30 Amps	1.036 (26.31)	0.125 (3.18)	0.810 (20.57)	5	*

PART NUMBER	CURRENT	A REF.	B Ø	C	SHELL SIZE	BEND CODE
MRT4314M	15 Amps	0.580 (14.73)	0.078 (1.98)	0.339 (8.61)	1, 2, 3 & 4	55
MRT4414M	15 Amps	0.692 (17.58)	0.078 (1.98)	0.451 (11.46)	5	55
MRT4714M	15 Amps	0.661 (16.79)	0.078 (1.98)	0.420 (10.67)	1, 2, 3 & 4	75
MRT4814M	15 Amps	0.773 (19.63)	0.078 (1.98)	0.520 (13.21)	5	75
MRT4310M	30 Amps	1.036 (26.31)	0.125 (3.18)	0.810 (20.57)	1, 2, 3 & 4	*
MRT4410M	30 Amps	1.036 (26.31)	0.125 (3.18)	0.810 (20.57)	5	*

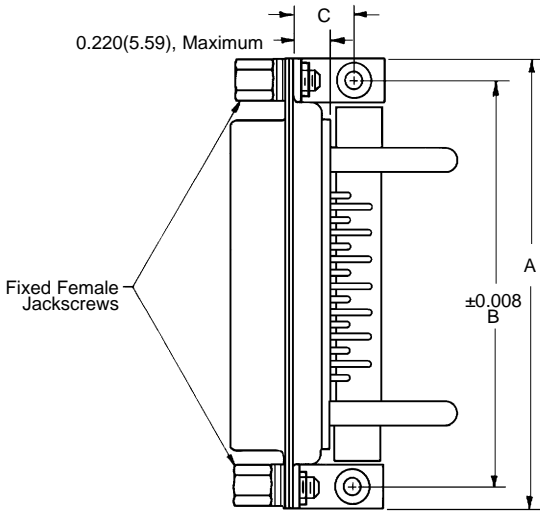
Material - High conductivity copper alloy.
Plating - 0.000050 inch (1.25µ) gold over copper.

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

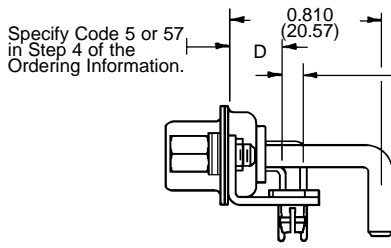
DIMENSIONS ARE IN INCHES (MILLIMETERS)
ALL DIMENSIONS SUBJECT TO CHANGE

RIGHT ANGLE PRINTED BOARD MOUNT CONNECTOR WITH 0.125(3.18) Ø POWER CONTACTS

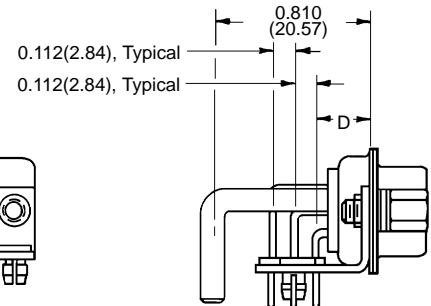
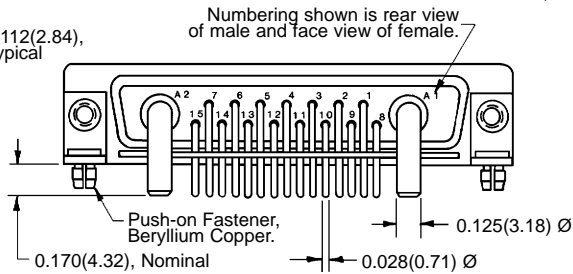
CODE 5 AND 57, 0.283(7.19) CONTACT EXTENSION
(30 AMPS NOMINAL)



SCBM00*R7000 0.283(7.19) CONTACT EXTENSION				
SHELL SIZE	A	B	C	D
SHELL SIZE 1	1.204 (30.58)	0.984 (24.99)	0.339 (8.61)	0.283 (7.19)
SHELL SIZE 2	1.532 (38.91)	1.312 (33.32)	0.339 (8.61)	0.283 (7.19)
SHELL SIZE 3	2.072 (52.63)	1.852 (47.04)	0.339 (8.61)	0.283 (7.19)
SHELL SIZE 4	2.720 (69.09)	2.500 (63.50)	0.339 (8.61)	0.283 (7.19)
SHELL SIZE 5	2.626 (66.70)	2.406 (61.11)	0.395 (10.03)	0.283 (7.19)



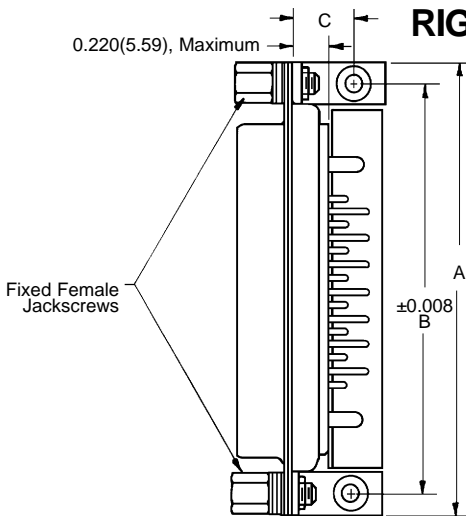
Typical Part Number:
SCBM17W2M57R7NT2G



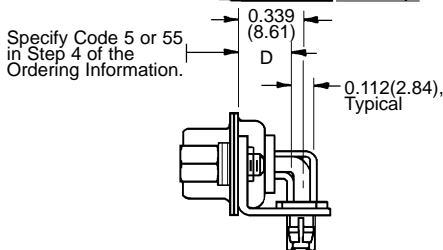
Typical Part Number:
SCBM36W4F57R7NT2G

RIGHT ANGLE PRINTED BOARD MOUNT CONNECTOR WITH 0.078(1.98) Ø POWER CONTACTS

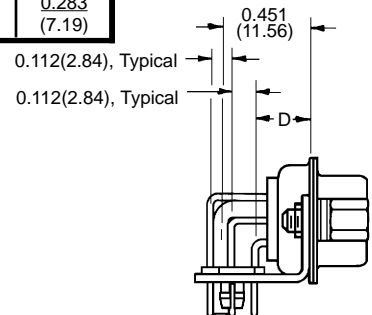
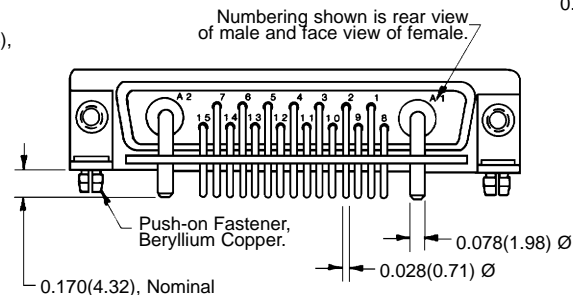
CODE 5 AND 55, 0.283(7.19) CONTACT EXTENSION
(15 AMPS NOMINAL)



SCBM00*R7000 0.283(7.19) CONTACT EXTENSION				
SHELL SIZE	A	B	C	D
SHELL SIZE 1	1.204 (30.58)	0.984 (24.99)	0.339 (8.61)	0.283 (7.19)
SHELL SIZE 2	1.532 (38.91)	1.312 (33.32)	0.339 (8.61)	0.283 (7.19)
SHELL SIZE 3	2.072 (52.63)	1.852 (47.04)	0.339 (8.61)	0.283 (7.19)
SHELL SIZE 4	2.720 (69.09)	2.500 (63.50)	0.339 (8.61)	0.283 (7.19)
SHELL SIZE 5	2.626 (66.70)	2.406 (61.11)	0.395 (10.03)	0.283 (7.19)



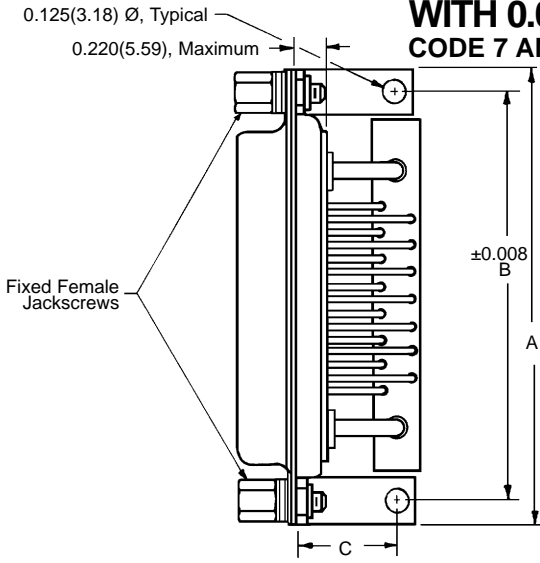
Typical Part Number:
SCBM17W2M55R7NT2G



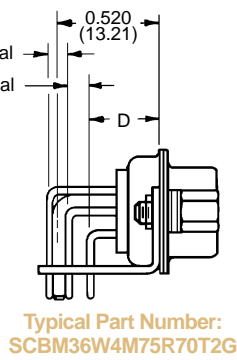
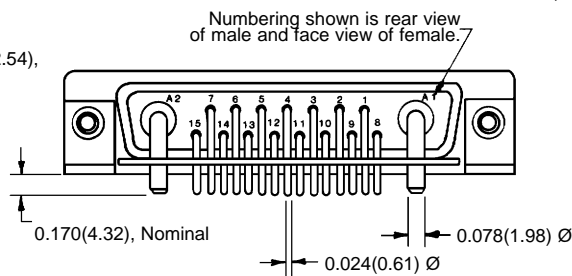
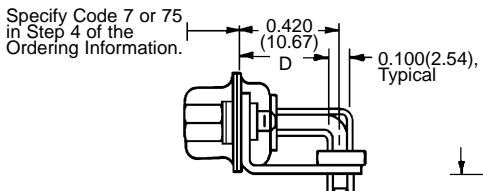
Typical Part Number:
SCBM36W4F55R7NT2G

DIMENSIONS ARE IN INCHES (MILLIMETERS). ALL DIMENSIONS ARE SUBJECT TO CHANGE.

METRIC SYSTEM 90° PRINTED BOARD MOUNT CONNECTOR WITH 0.078(1.98) Ø POWER CONTACTS CODE 7 AND 75, 0.370(9.40) CONTACT EXTENSION (15 AMPS NOMINAL)



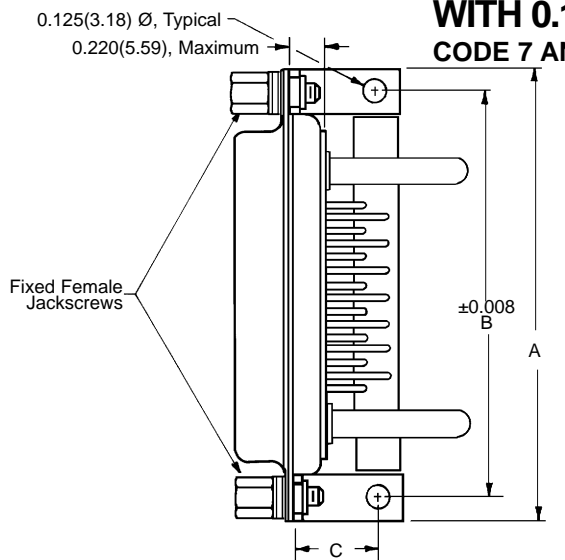
SCBM00*R7000 0.370(9.40) CONTACT EXTENSION				
SHELL SIZE	A	B	C	D
SHELL SIZE 1	1.204 (30.58)	0.984 (24.99)	0.420 (10.67)	0.370 (9.40)
SHELL SIZE 2	1.532 (38.91)	1.312 (33.32)	0.420 (10.67)	0.370 (9.40)
SHELL SIZE 3	2.072 (52.63)	1.852 (47.04)	0.420 (10.67)	0.370 (9.40)
SHELL SIZE 4	2.720 (69.09)	2.500 (63.50)	0.420 (10.67)	0.370 (9.40)
SHELL SIZE 5	2.626 (66.70)	2.406 (61.11)	0.470 (11.94)	0.370 (9.40)



Typical Part Number:
SCBM17W2M75R70T2G

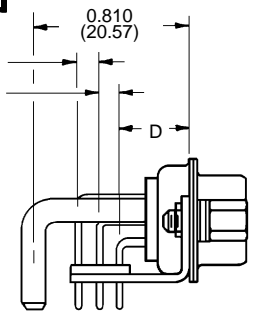
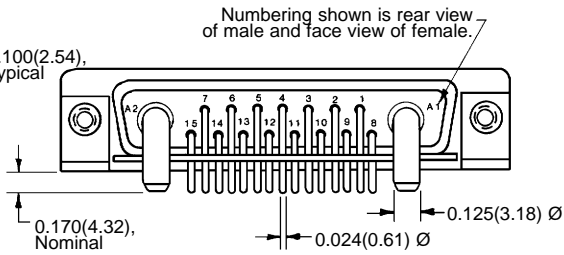
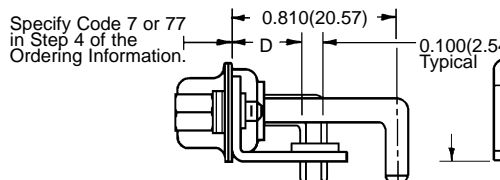
Typical Part Number:
SCBM36W4M75R70T2G

METRIC SYSTEM 90° PRINTED BOARD MOUNT CONNECTOR WITH 0.125(3.18) Ø POWER CONTACTS CODE 7 AND 77, 0.370(9.40) CONTACT EXTENSION (30 AMPS NOMINAL)



SCBM00*R7000 0.370(9.40) CONTACT EXTENSION				
SHELL SIZE	A	B	C	D
SHELL SIZE 1	1.204 (30.58)	0.984 (24.99)	0.420 (10.67)	0.370 (9.40)
SHELL SIZE 2	1.532 (38.91)	1.312 (33.32)	0.420 (10.67)	0.370 (9.40)
SHELL SIZE 3	2.072 (52.63)	1.852 (47.04)	0.420 (10.67)	0.370 (9.40)
SHELL SIZE 4	2.720 (69.09)	2.500 (63.50)	0.420 (10.67)	0.370 (9.40)
SHELL SIZE 5	2.626 (66.70)	2.406 (61.11)	0.470 (11.94)	0.370 (9.40)

DIMENSIONS ARE IN INCHES (MILLIMETERS). ALL DIMENSIONS ARE SUBJECT TO CHANGE.

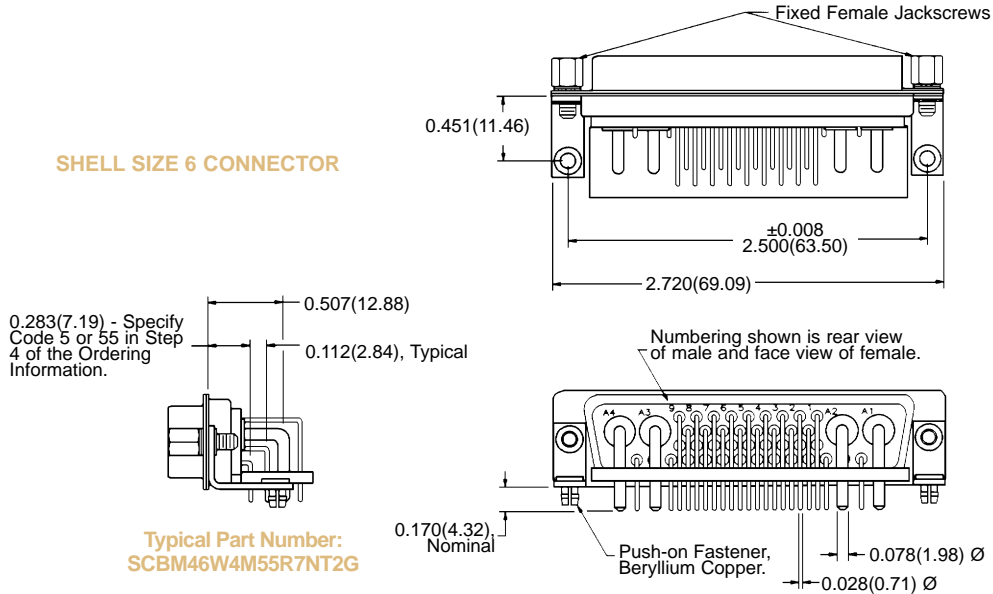


Typical Part Number:
SCBM17W2M77R70T2G

Typical Part Number:
SCBM36W4M77R70T2G

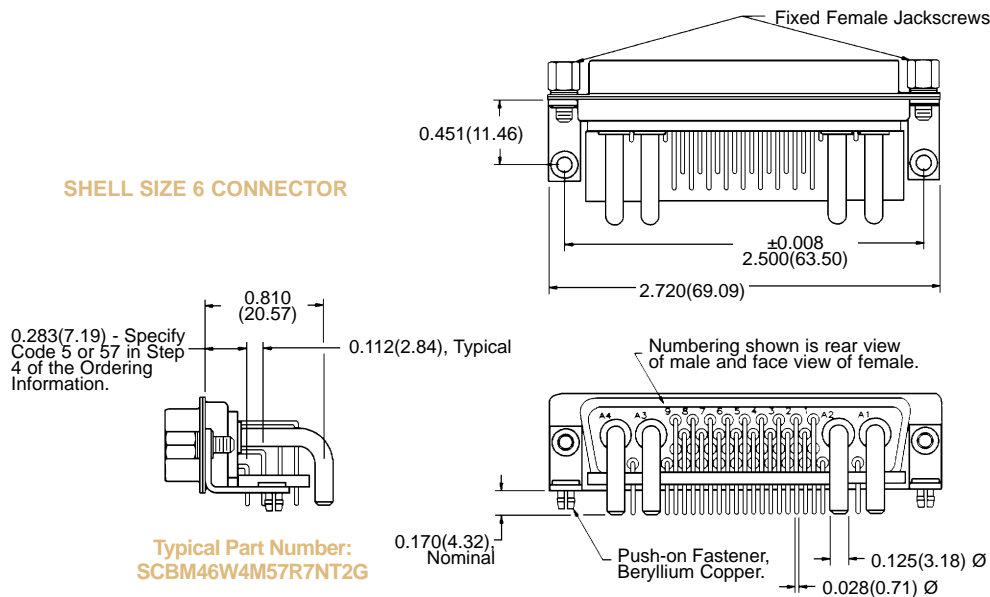
**SHELL SIZE 6
90° PRINTED BOARD MOUNT CONNECTOR
WITH 0.078(1.98) Ø POWER CONTACTS
CODE 5 AND 55, 0.283(7.19) CONTACT EXTENSION
CONNECTOR VARIANT 46W4
(15 AMPS NOMINAL)**

SHELL SIZE 6 CONNECTOR



**SHELL SIZE 6
90° PRINTED BOARD MOUNT CONNECTOR
WITH 0.125(3.18) Ø POWER CONTACTS
CODE 5 AND 57, 0.283(7.19) CONTACT EXTENSION
CONNECTOR VARIANT 46W4
(30 AMPS NOMINAL)**

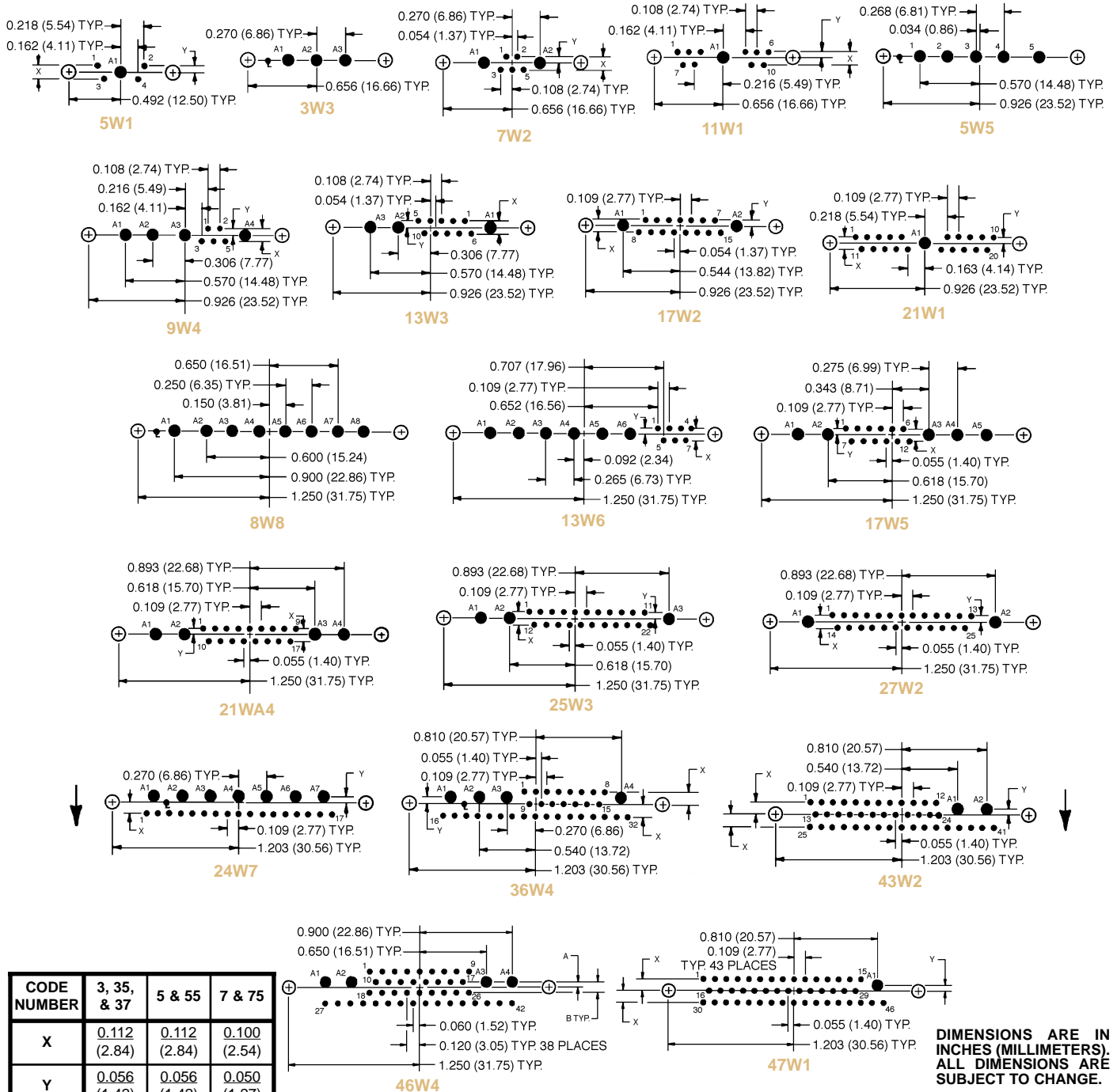
SHELL SIZE 6 CONNECTOR



DIMENSIONS ARE IN INCHES (MILLIMETERS).
ALL DIMENSIONS ARE SUBJECT TO CHANGE.

RIGHT ANGLE AND STRAIGHT PRINTED BOARD CONTACT HOLE PATTERN WITH 0.078(1.98) Ø AND STRAIGHT PRINTED BOARD MOUNT 0.125(3.18) Ø POWER CONTACTS

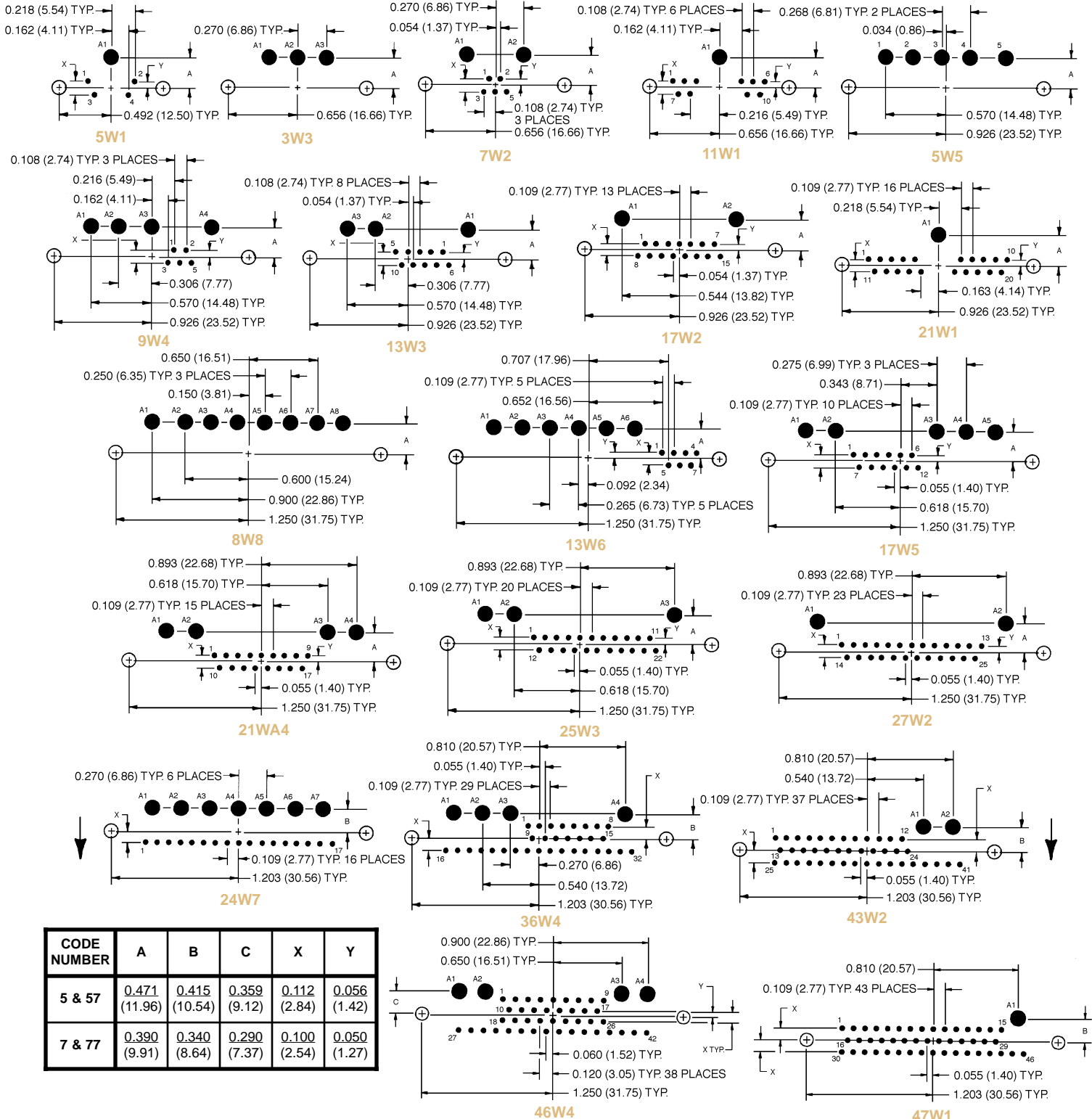
Hole identification shown for male connector; use mirror image for female connector.
Mount connector with mating face positioned to follow direction of arrows.



Suggest 0.045(1.14) Ø hole for signal contact termination positions.
Suggest 0.098(2.49) Ø hole for 0.078(1.98) Ø power contact terminations.
Suggest 0.145(3.68) Ø hole for 0.125(3.18) Ø power contact termination positions.
Suggest 0.123 ±0.003 (3.12) Ø hole for mounting connector with push-on fasteners.

RIGHT ANGLE PRINTED BOARD CONTACT HOLE PATTERN WITH 0.125(3.18) Ø POWER CONTACTS

Hole identification shown for male connector; use mirror image for female connector.
Mount connector with mating face positioned to follow direction of arrows.



CODE NUMBER	A	B	C	X	Y
5 & 57	0.471 (11.96)	0.415 (10.54)	0.359 (9.12)	0.112 (2.84)	0.056 (1.42)
7 & 77	0.390 (9.91)	0.340 (8.64)	0.290 (7.37)	0.100 (2.54)	0.050 (1.27)

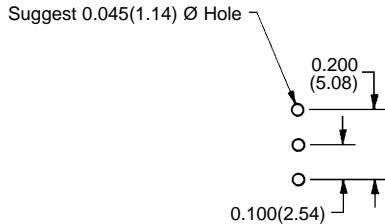
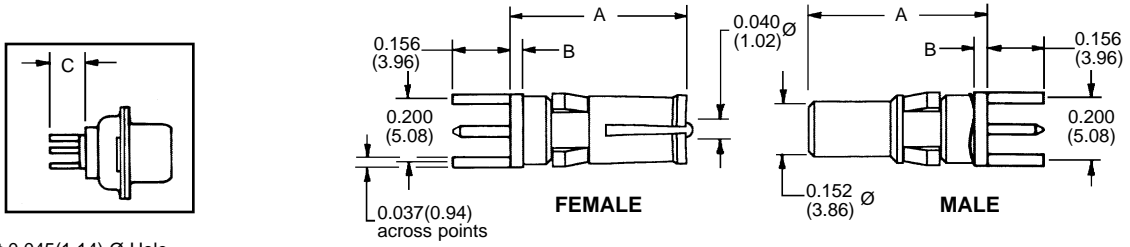
Suggest 0.045(1.14) Ø hole for signal contact termination positions.
Suggest 0.145(3.68) Ø hole for 0.125(3.18) Ø power contact termination positions.
Suggest 0.123 ±0.003 (3.12) Ø hole for mounting connector with push-on fasteners.

DIMENSIONS ARE IN INCHES (MILLIMETERS).
ALL DIMENSIONS ARE SUBJECT TO CHANGE.

PRINTED BOARD MOUNT SHIELDED CONTACTS

STRAIGHT PRINTED BOARD MOUNT SHIELDED CONTACTS

STRAIGHT PRINTED BOARD MOUNT SHIELDED CONTACTS ARE MOUNTED IN CONNECTOR WHEN ORDERED.



FDS4201M and MDS4201M
Contact Hole Pattern

PART NUMBER	A	B	C
FDS4201M	0.481 (12.22)	0.025 (0.64)	0.181 (4.60)

PART NUMBER	A	B	C
MDS4201M	0.489 (12.42)	0.025 (0.64)	0.181 (4.60)

Material: Copper alloy with PTFE teflon insulator.

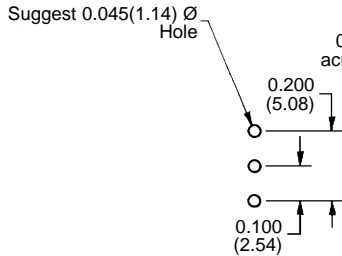
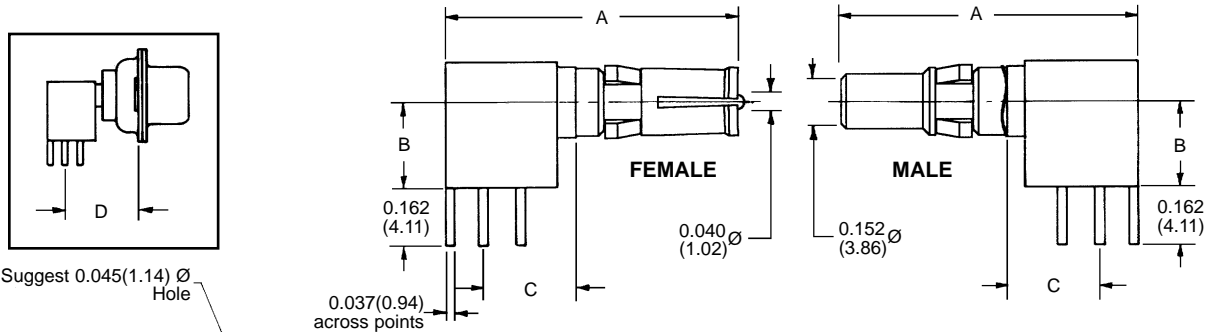
Signal Contact Plating: 0.000050 inch (1.25 μ) gold over copper.

Contact Body Plating: 0.000050 inch (1.25 μ) gold over copper.

* Technical characteristics are listed on page 33.

RIGHT ANGLE PRINTED BOARD MOUNT SHIELDED CONTACTS

90° PRINTED BOARD MOUNT SHIELDED CONTACTS ARE MOUNTED IN CONNECTOR WHEN ORDERED.



FRT4201M and MRT4201M
Contact Hole Pattern

PART NUMBER	A	B	C	D
FRT4201M	0.827 (21.01)	0.240 (6.10)	0.259 (6.58)	0.470 (11.94)

PART NUMBER	A	B	C	D
MRT4201M	0.829 (21.06)	0.240 (6.10)	0.253 (6.43)	0.470 (11.94)

Material: Copper alloy with PTFE teflon insulator.

Signal Contact Plating: 0.000050 inch (1.25 μ) gold over copper.

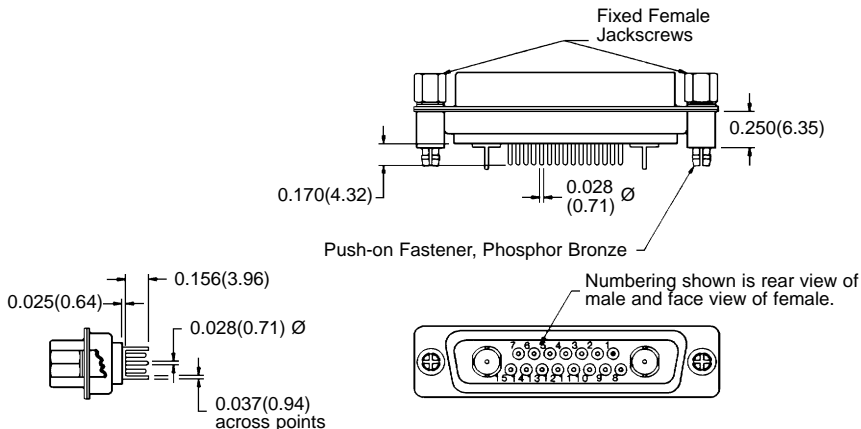
Contact Body Plating: 0.000050 inch (1.25 μ) gold over copper.

* Technical characteristics are listed on page 33.

DIMENSIONS ARE IN INCHES (MILLIMETERS).
ALL DIMENSIONS ARE SUBJECT TO CHANGE.

STRAIGHT PRINTED BOARD MOUNT CONNECTOR WITH SHIELDED CONTACTS

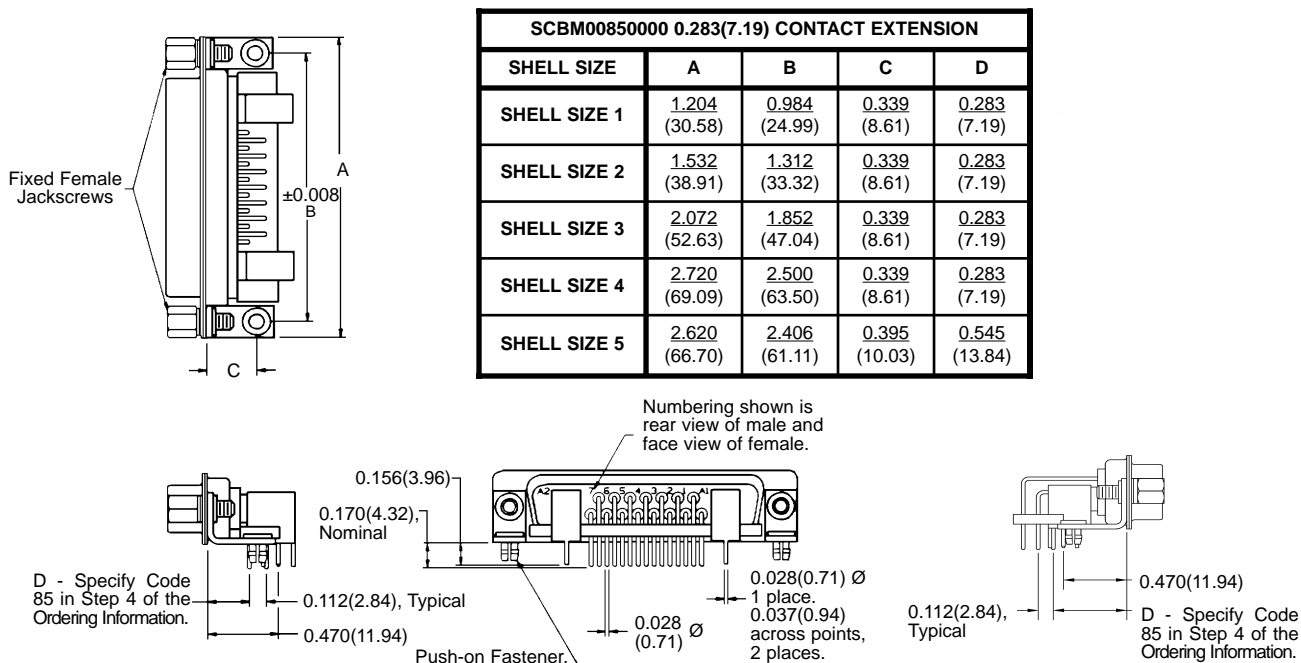
CODE 65, CONNECTOR WITH FDS4201M OR MDS4201M CONTACTS



Typical Part Number:
SCBM17W2M65S60T2G

RIGHT ANGLE PRINTED BOARD MOUNT CONNECTOR WITH SHIELDED CONTACTS

CODE 85, CONNECTOR WITH FRT4201M OR MRT4201M CONTACTS



Typical Part Number:
SCBM17W2M85R7NT2G

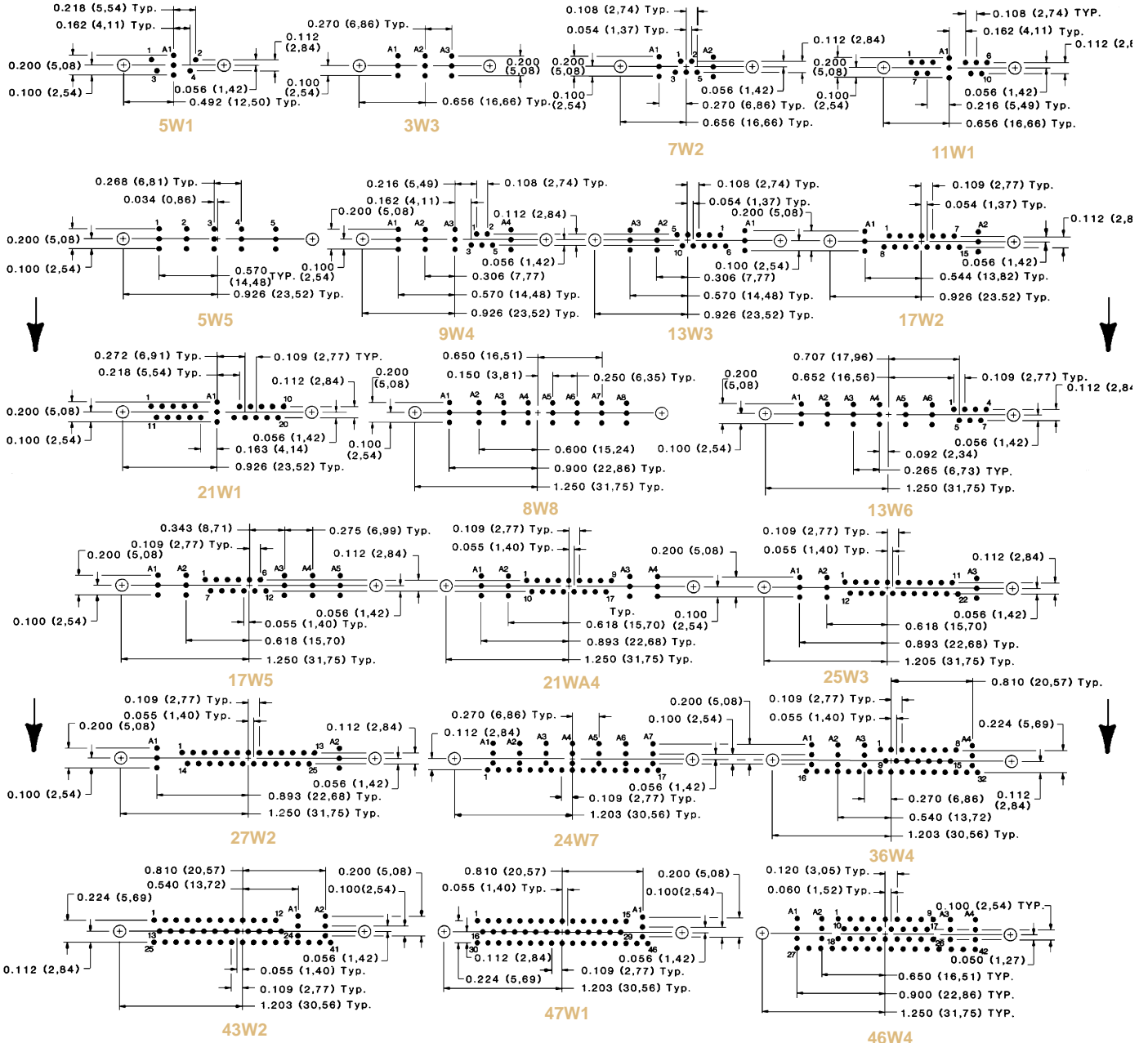
Typical Part Number:
SCBM36W4M85R7NT2G

NOTE: Shell size 5 connectors are supplied inverted when ordered with 90° printed board mount shielded contact.

DIMENSIONS ARE IN INCHES (MILLIMETERS).
ALL DIMENSIONS ARE SUBJECT TO CHANGE.

**STRAIGHT PRINTED BOARD MOUNT CONTACT HOLE PATTERN
WITH FDS4201M AND MDS4201M SHIELDED CONTACTS**

Hole identification shown is for male connector; use mirror image for female connector.

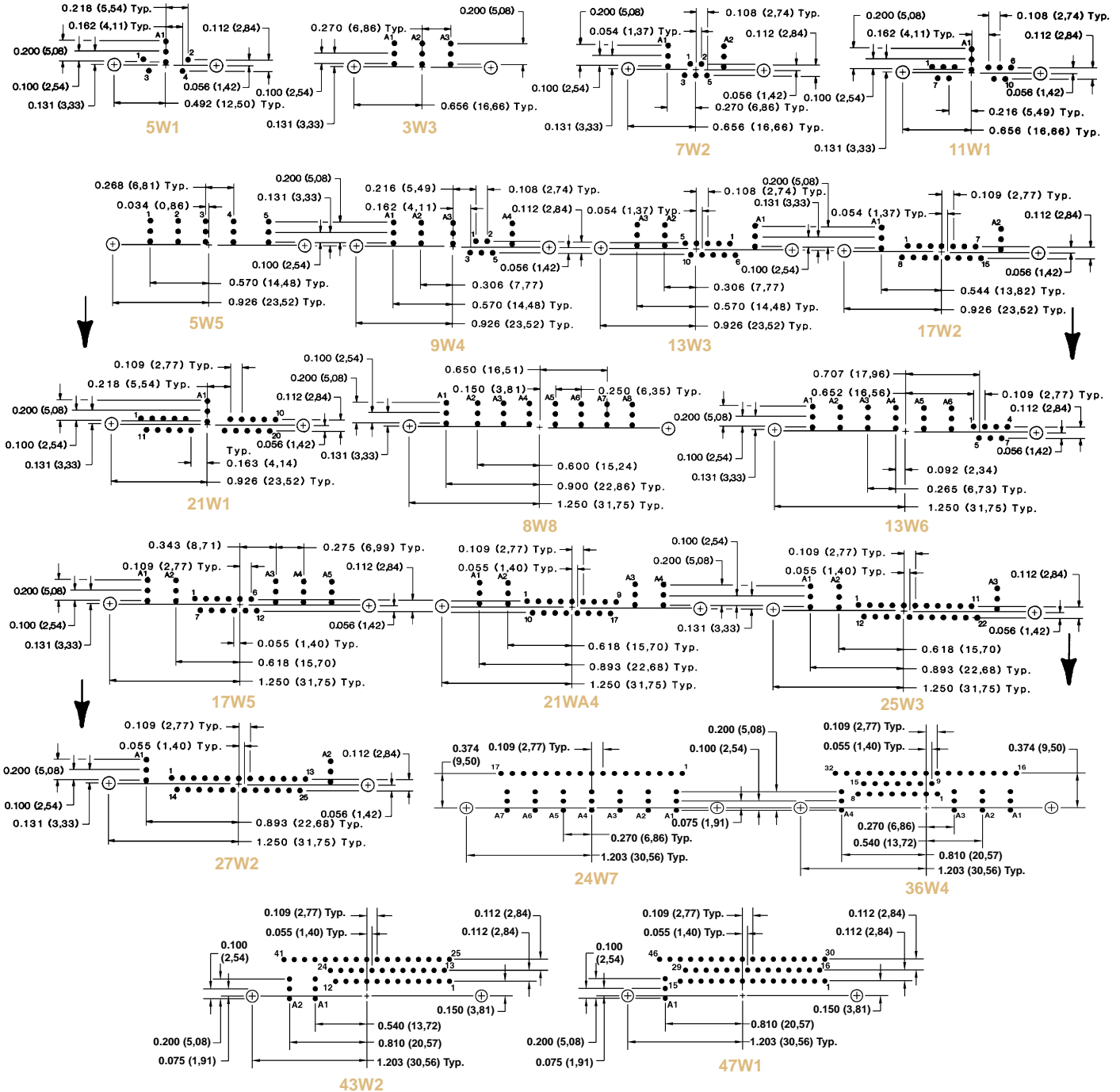


Suggest 0.045(1.14) Ø hole for signal contact termination position.
Suggest 0.123 ±0.003 (3.12) Ø hole for mounting connector with push-on fastener.

DIMENSIONS ARE IN INCHES (MILLIMETERS).
ALL DIMENSIONS ARE SUBJECT TO CHANGE.

90° PRINTED BOARD MOUNT CONTACT HOLE PATTERN
WITH FRT4201M AND MRT4201M SHIELDED CONTACTS

Hole identification shown is for male connector; use mirror image for female connector.
Mount connector with mating face positioned to follow direction of arrow.



Suggest 0.045(1.14) Ø hole for signal contact termination position.
Suggest 0.123 ±0.003 (3.12) Ø hole for mounting connector with push-on fastener.

DIMENSIONS ARE IN INCHES (MILLIMETERS).
ALL DIMENSIONS ARE SUBJECT TO CHANGE.

ORDERING INFORMATION - CODE NUMBERING SYSTEM

Specify the complete connector by following Steps 1 through 9.
Insert "0" when a step is not used.

STEP	1	2	3	4	5	6	7	8	9
	SCBM	17W2	F	55	R7	N	T2	G	

STEP 1 - Basic Series

SCBM Series - Space Conformance with
"Closed Entry" Signal Contacts

STEP 2 - Space Combo-D Series Connector Variants

Shell Size 1

5W1

Shell Size 2

3W3, 7W2, 11W1

Shell Size 3

5W5, 9W4, 13W3, 17W2, 21W1

Shell Size 4

8W8, 13W6, 17W5, 21WA4, 25W3, 27W2

Shell Size 5

24W7, 36W4, 43W2, 47W1

Shell Size 6

46W4

STEP 3 - Connector Gender

M -Male

F -Female

STEP 4 - Contact Termination Type

- 2 - Solder, Signal Contacts only.
- 3 - Solder, Straight Printed Board Mount with Signal Contacts, 0.170(4.32) Tail Length.
- 35 - Solder, Straight Printed Board Mount with Signal and 0.078(1.98) Ø Power Contacts, 0.170(4.32) Tail Length.
- 37 - Solder, Straight Printed Board Mount with Signal and 0.125(3.18) Ø Power Contacts, 0.170(4.32) Tail Length.
- 5 - Solder, 90° Printed Board Mount with Signal Contacts only, 0.283(7.19) Signal Contact Extension.
- 55 - Solder, 90° Printed Board Mount with Signal and 0.078(1.98) Ø Power Contacts, 0.283(7.19) Signal Contact Extension.
- 57 - Solder, 90° Printed Board Mount with Signal and 0.125(3.18) Ø Power Contacts, 0.283(7.19) Signal Contact Extension.
- 65 - Solder, Straight Printed Board Mount with Signal and Shielded Contacts, MDS/FDS 4201M footprint, 0.170(4.32) Signal Contact Tail Length.
- 7 - Solder, Metric System 90° Printed Board Mount with Signal Contacts only, 0.370(9.40) Signal Contact Extension.
- 75 - Solder, Metric System 90° Printed Board Mount with Signal and 0.078(1.98) Ø Power Contacts, 0.370(9.40) Signal Contact Extension.
- 77 - Solder, Metric System 90° Printed Board Mount with Signal and 0.125(3.18) Ø Power Contacts, 0.370(9.40) Signal Contact Extension.
- **85 - Solder, 90° Printed Board Mount with Signal and Shielded Contacts, MRT/FRT 4201M Footprint, 0.283(7.19) Signal Contact Extension.

STEP 9 - Special Options

Consult Sales Department.

STEP 8 - Shell Options

G - Gold over Copper Plate.

D - Gold over Copper Plate and Dimpled.

* STEP 7 - Locking and Polarizing Systems

- 0 - None.
- T - Fixed Female Jackscrews.
- T2 - Fixed Female Jackscrews.
- T6 - Fixed Male and Female Polarized Jackscrews.
- E - Rotating Male Jackscrews.
- E6 - Rotating Male and Female Polarized Jackscrews.

* STEP 6 - Hoods and Push-On Fasteners

- 0 - None.
- H - Hood, Top Opening, Brass.
- M - Hood, Top Opening, Aluminum, see page 52 for complete listing of options.
- N - Push-on Fastener for 90° Mounting Brackets.

* STEP 5 - Mounting Style

- 0 - Mounting Hole, 0.120(3.05) Ø.
- B3 - Bracket, Mounting, 90° Metal with Cross Bar.
- F - Float Mounts, Universal.
- P - Threaded Post, Brass, 0.250(6.35) Length.
- R2 - Bracket, Mounting, 90° Metal, Swaged to Connector with 4-40 Thread Fixed Female Jackscrews with Cross Bar.
- R6 - Bracket, Mounting, 90° Metal, Swaged to Connector with 0.120(3.05) Ø Mounting Hole with Cross Bar.
- R7 - Bracket, Mounting, 90° Metal, Swaged to Connector with 4-40 Threads with Cross Bar.
- R8 - Bracket, Mounting, 90° Metal, Swaged to Connector with 4-40 Locknut with Cross Bar.
- S - Swaged Spacer, 4-40 Threads, 0.250(6.35) Length.
- S2 - Swaged Spacer, 4-40 Threads, 0.125(3.18) Length.
- S5 - Swaged Locknut, 4-40 Threads.
- S6 - Swaged Spacer with Push-on Fastener, 4-40 Threads, 0.250(6.35) Length.

* NOTE:

For additional information on accessories listed in Steps 5, 6, and 7, see the Accessory Section, pages 48-54.

** NOTE:

Not available on Shell Size 6, CBD 46W4.