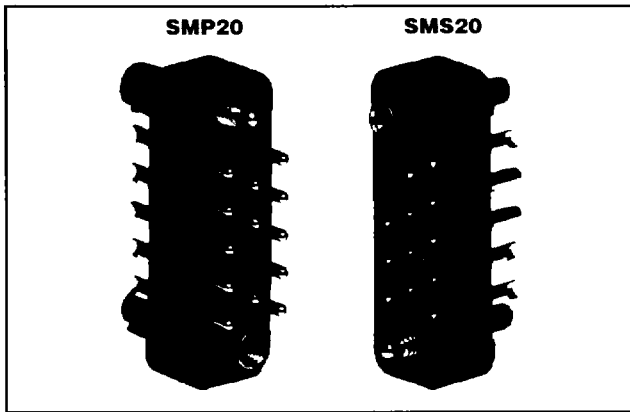


MODEL SM20

Rack and Panel Connectors

Subminiature Rectangular



FEATURES

- Lightweight
- Polarized by guides or screwlocks
- Screwlocks lock connectors together to withstand vibration and accidental disconnect
- Overall height kept to a minimum
- Floating contacts aid in alignment and in withstanding vibration
- Contacts, precision machined and individually gauged, provide high reliability
- Insertion and withdrawal forces kept low without increasing contact resistance
- Contact plating provides protection against corrosion, assures low contact resistance and ease of soldering

ELECTRICAL SPECIFICATIONS

Current Rating: 7.5 amps.

Breakdown Voltage:

At Sea Level: 2000 V RMS.

At 70,000 feet [21,336 meters]: 500 V RMS.

PHYSICAL SPECIFICATIONS

Number of Contacts: 5, 7, 11, 14, 20, 26, 34, 42, 50, 75.

Contact Spacing: .120" [3.05mm].

Contact Gauge: #20 AWG.

Minimum Creepage Path Between Contacts: .080" [2.03mm].

Minimum Air Space Between Contacts: .050" [1.27mm].

APPLICATIONS

For use wherever space is at a premium and a high quality connector is required in avionics, automation, communications, controls, instrumentation, missiles, computers and guidance systems.

MATERIAL SPECIFICATIONS

Contact Pin: Brass, gold plated.

Contact Socket: Phosphor bronze, gold plated. (Beryllium copper available on request.)

Guides: Stainless steel, passivated.

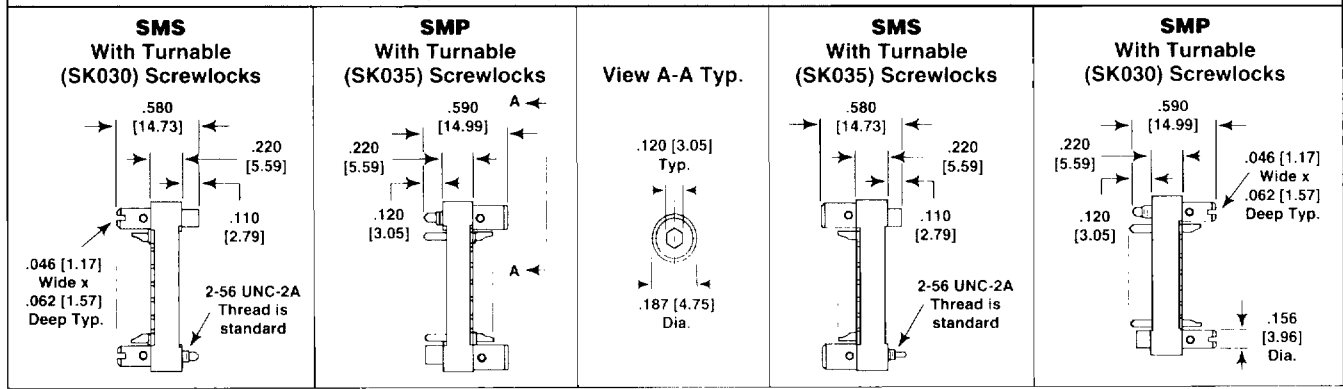
Screwlocks: Stainless steel, passivated.

Standard Body: Glass-filled diallyl phthalate per MIL-M-14, Type GDI-30F, green.

DIMENSIONAL CONFIGURATIONS [Numbers in brackets indicate millimeters]			
<p>SMS With Fixed Standard Guides</p> <p>.470 [11.94] .190 [4.83] Typ. 2-56 UNC-2A Threads Typ. .156 [3.96] Typ. See Detail B</p>	<p>SMS - DETAIL B Dip Solder Contact Option</p> <p>.187 [4.75] Typ. .030 [7.62] Typ.</p>	<p>SMP With Fixed Standard Guides</p> <p>.530 [13.46] .120 [3.05] .220 [5.59] .141 [3.58] Typ. .046 [1.17] Dia. Solder Cup #20 AWG Typ. .040 [1.02] Dia. Typ. See Detail C</p>	<p>SMDP - DETAIL C Dip Solder Contact Option</p> <p>.141 [3.58] Typ. .187 [4.75] Typ. .030 [7.62] Typ. .040 ± .001 [1.02 ± .025] Dia. Typ.</p>
<p>SMS With Fixed (SL) Screwlocks</p> <p>.520 [13.21] .220 [5.59] .110 [2.79] 2-56 UNC-2A Thread is standard</p>	<p>SMP With Turnable (SK) Screwlocks</p> <p>.920 [23.37] .220 [5.59] .120 [3.05]</p>	<p>SMS With Turnable (SK) Screwlocks</p> <p>.910 [23.11] .220 [5.59] .110 [2.79] .046 [1.17] Wide x .062 [1.57] Deep Typ. 2-56 UNC-2A Thread is standard</p>	<p>SMP With Fixed (SL) Screwlocks</p> <p>.530 [13.46] .220 [5.59] .120 [3.05]</p>

MODEL SM20

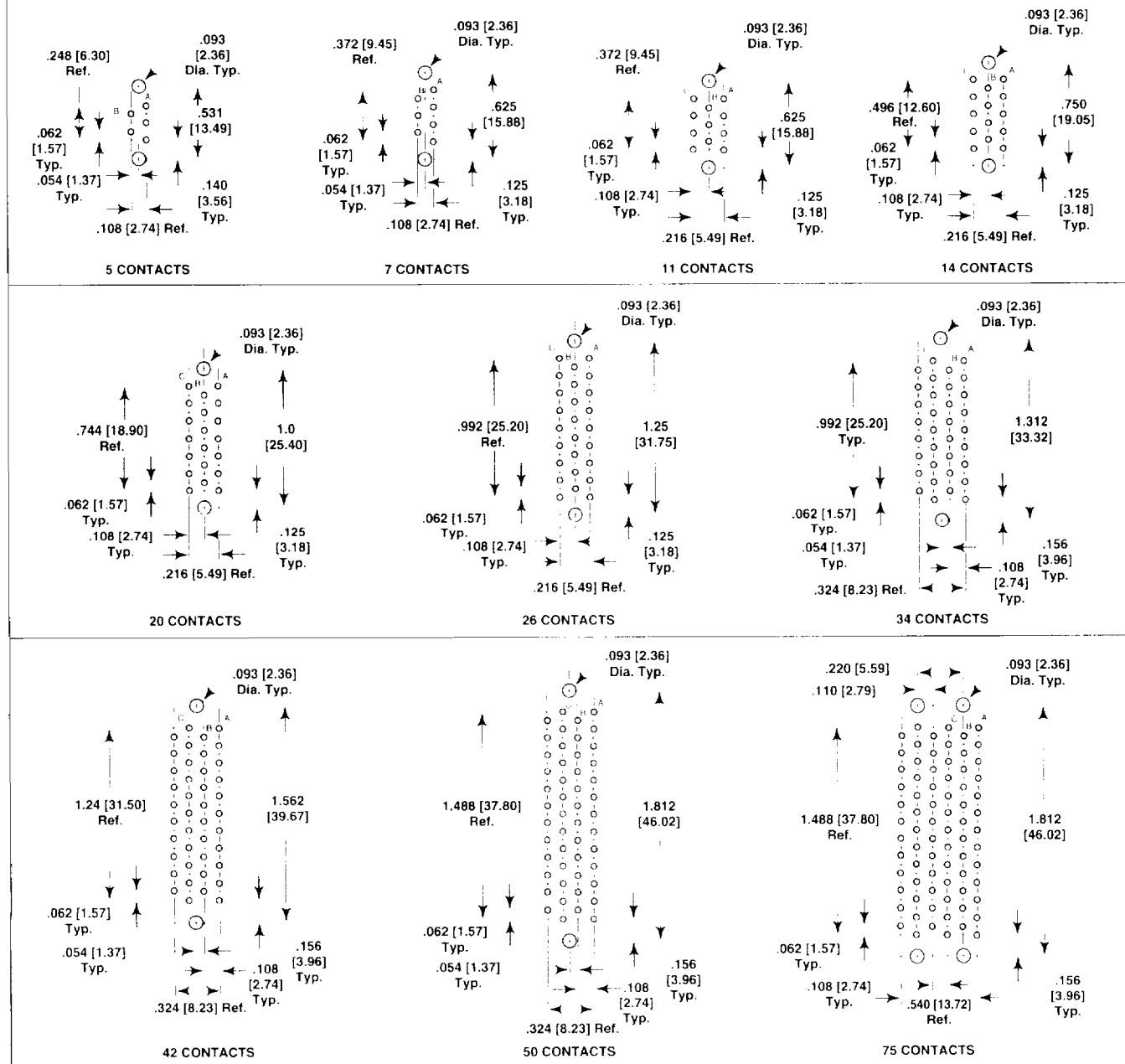
DIMENSIONAL CONFIGURATIONS [Numbers in brackets indicate millimeters]



TERMINAL VARIATIONS [Numbers in brackets indicate millimeters]

DIP SOLDER PC BOARD MOUNTING PATTERNS

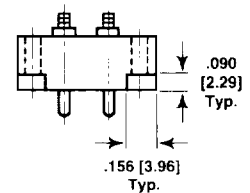
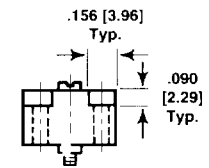
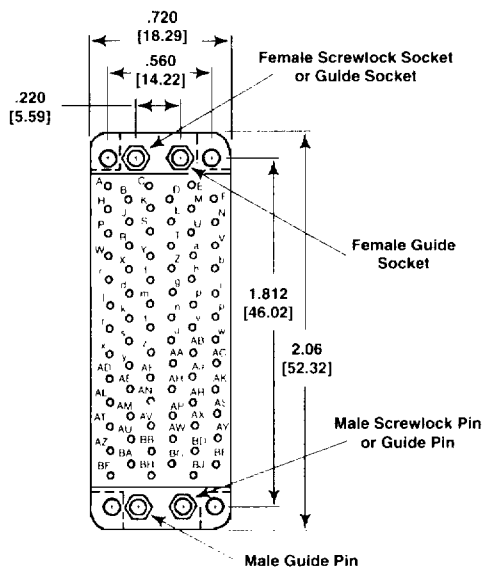
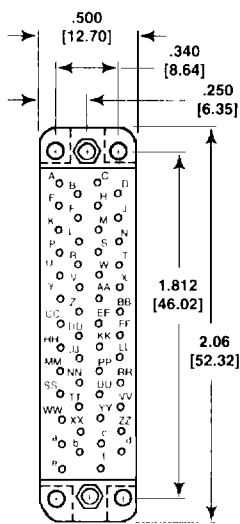
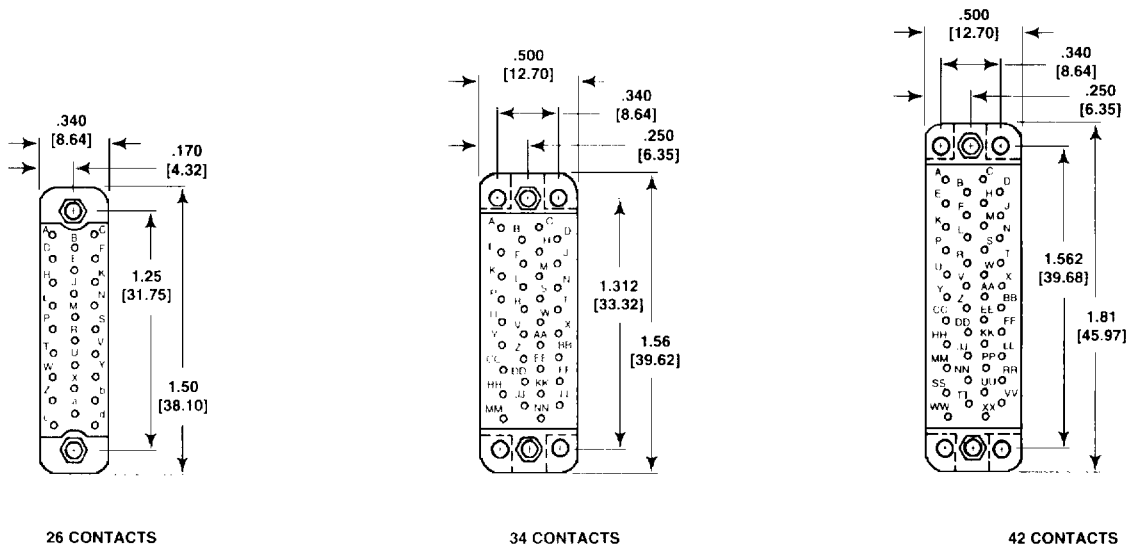
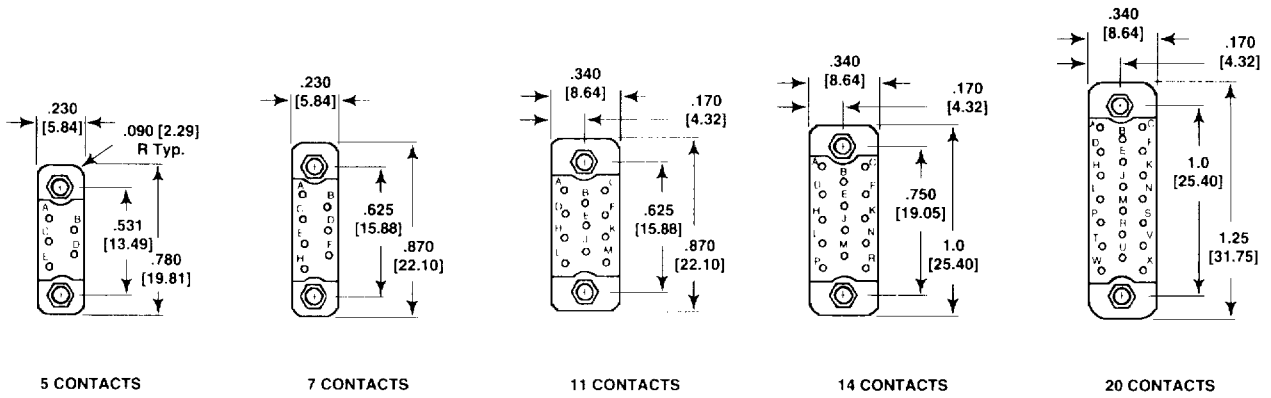
Male (SMP) Connector is Shown - Female is Opposite. Contact Row and Mating Hole ϕ to ϕ Dimensions also Applies to Solder Cup Connectors.



MODEL SM20

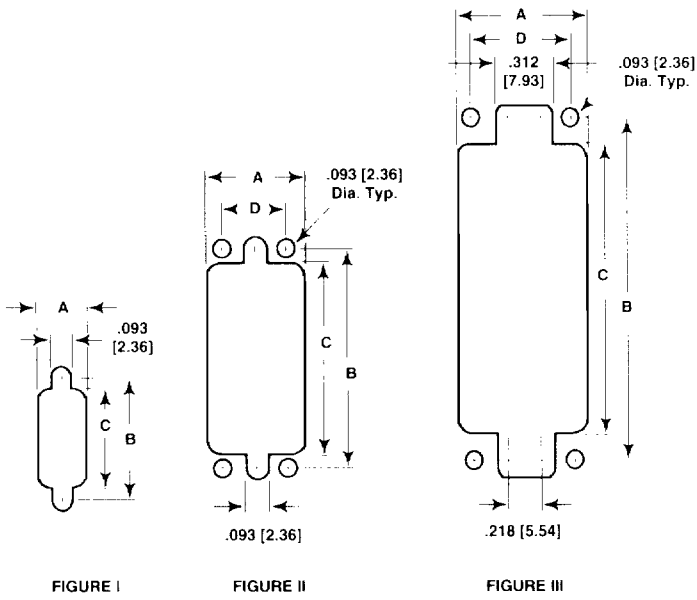
DIMENSIONAL CONFIGURATIONS [Numbers in brackets indicate millimeters]

Note: The views below show the wiring side of a pin type connector (female is opposite). Socket hardware is assembled at "A" contact end of a pin type connector.



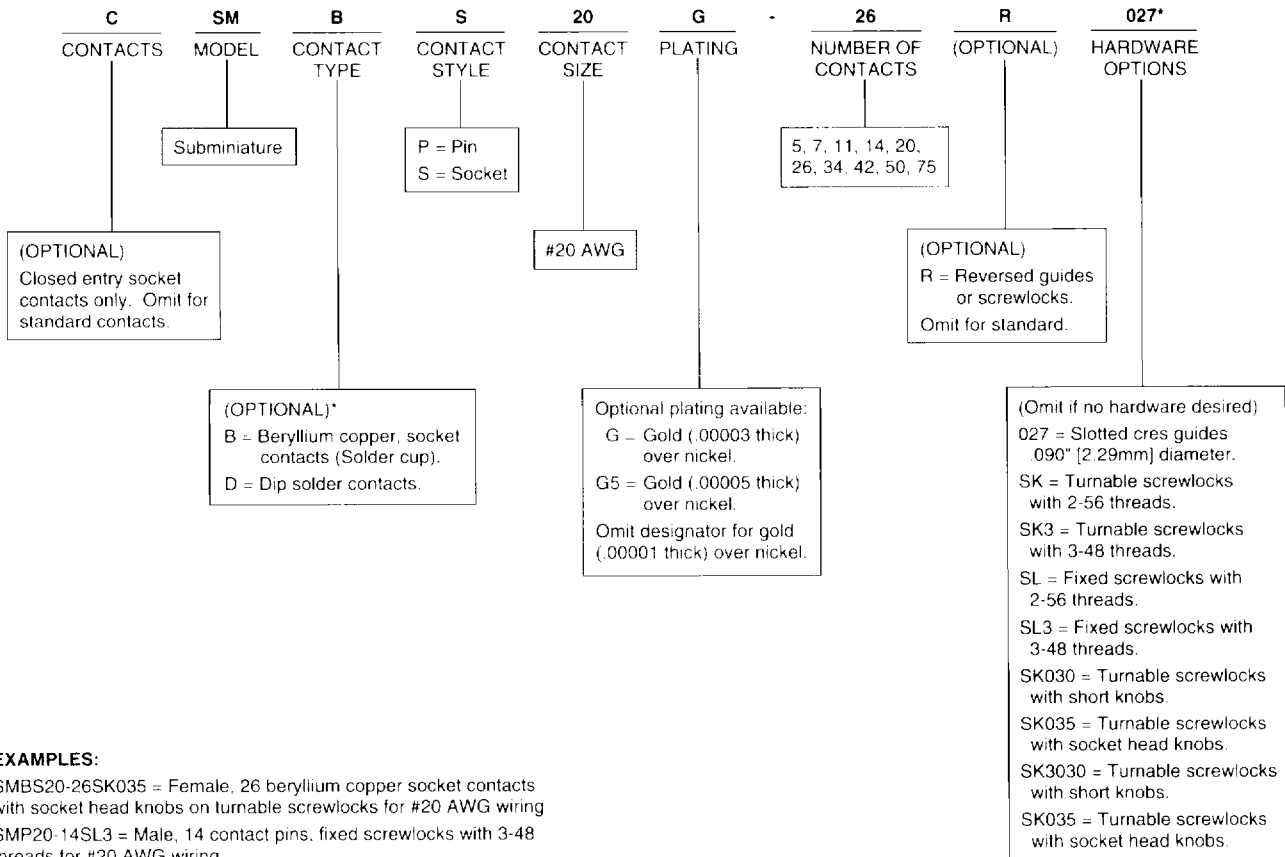
MODEL SM20

PANEL CUTOUT [Numbers in brackets indicate millimeters]



NUMBER OF CONTACTS	A	B	C	D	FIGURE
5	.230 [5.84]	.531 [13.49]	.410 [10.41]	—	I
7	.230 [5.84]	.625 [15.88]	.500 [12.70]	—	
11	.340 [8.64]	.625 [15.88]	.530 [13.46]	—	
14	.340 [8.64]	.750 [19.05]	.620 [15.75]	—	
20	.340 [8.64]	1.0 [25.40]	.910 [23.11]	—	
26	.340 [8.64]	1.25 [31.75]	1.16 [29.46]	—	
34	.500 [12.70]	1.312 [33.32]	1.16 [29.46]	.343 [8.71]	II
42	.500 [12.70]	1.562 [39.68]	1.41 [35.81]	.343 [8.71]	
50	.500 [12.70]	1.812 [46.02]	1.66 [42.16]	.343 [8.71]	
75	.720 [18.29]	1.812 [46.02]	1.66 [42.16]	.562 [14.28]	III

HOW TO ORDER



EXAMPLES:

SMBS20-26SK035 = Female, 26 beryllium copper socket contacts with socket head knobs on turnable screwlocks for #20 AWG wiring
 SMP20-14SL3 = Male, 14 contact pins, fixed screwlocks with 3-48 threads for #20 AWG wiring.

* To order complete connector with hardware supplied unassembled, add suffix "UA" on end of hardware designation.