

Rack and Panel Connectors

Subminiature Rectangular



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].

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.

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.

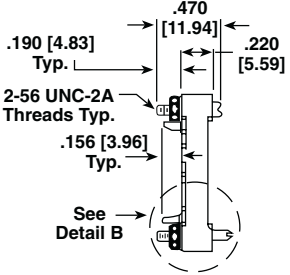
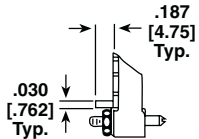
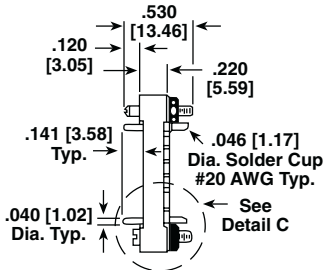
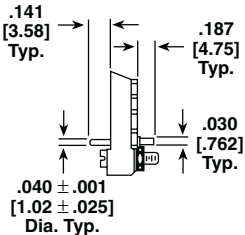
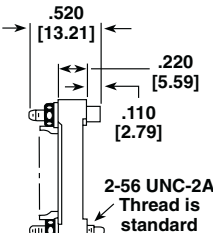
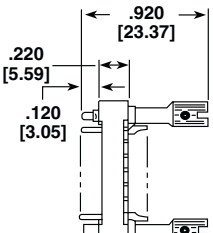
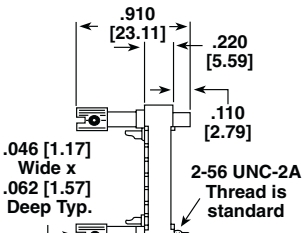
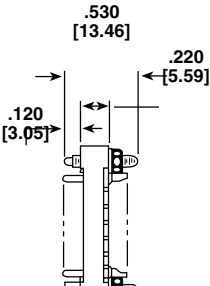
(Beryllium copper available on request.)

Guides: Stainless steel, passivated.

Screwlocks: Stainless steel, passivated.

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

DIMENSIONS in inches [millimeters]

| | | | |
|--|---|--|---|
| <p>SMS With Fixed Standard Guides</p>  | <p>SMDS - DETAIL B Dip Solder Contact Option</p>  | <p>SMP With Fixed Standard Guides</p>  | <p>SMDP - DETAIL C Dip Solder Contact Option</p>  |
| <p>SMS With Fixed (SL) Screwlocks</p>  | <p>SMP With Turnable (SK) Screwlocks</p>  | <p>SMS With Turnable (SK) Screwlocks</p>  | <p>SMP With Fixed (SL) Screwlocks</p>  |

DIMENSIONS in inches [millimeters]

| | | | | |
|--|--|--|---|--|
| <p>SMS With Turnable (SK030) Screwlocks</p> <p>.580 [14.73] .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 Turnable (SK035) Screwlocks</p> <p>.610 [15.49] .220 [5.59] .120 [3.05] A A</p> | <p>View A-A Typ.</p> <p>.093 [2.36] Hex Typ. .156 [3.96] Dia.</p> | <p>SMS With Turnable (SK035) Screwlocks</p> <p>.595 [15.11] .220 [5.59] .110 [2.79] 2-56 UNC-2A Thread is standard</p> | <p>SMP With Turnable (SK030) Screwlocks</p> <p>.590 [14.99] .220 [5.59] .120 [3.05] .046 [1.17] Wide x .062 [1.57] Deep Typ. .156 [3.96] Dia.</p> |
|--|--|--|---|--|

TERMINAL VARIATIONS in inches [millimeters]

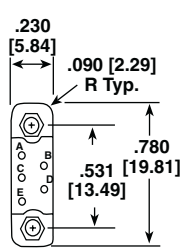
DIP SOLDER PC BOARD MOUNTING PATTERNS

Male (SMP) Connector is shown - Female is opposite. Contact row and Mating Hole \varnothing to \varnothing Dimensions also applies to Solder Cup Connectors.

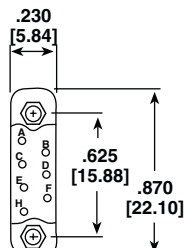
| | | | |
|--|--|--|---|
| <p>.0625 [1.59] Typ. .093 [2.36] Dia. Typ. .250 [6.35] Ref. .531 [13.49] .054 [1.37] Typ. .108 [2.74] Ref. .140 [3.56] Typ.</p> <p>5 CONTACTS</p> | <p>.0625 [1.59] Typ. .093 [2.36] Dia. Typ. .375 [9.53] Ref. .625 [15.88] .054 [1.37] Typ. .108 [2.74] Ref. .125 [3.18] Typ.</p> <p>7 CONTACTS</p> | <p>.0625 [1.59] Typ. .093 [2.36] Dia. Typ. .375 [9.53] Ref. .625 [15.88] .108 [2.74] Typ. .216 [5.49] Ref. .125 [3.18] Typ.</p> <p>11 CONTACTS</p> | <p>.0625 [1.59] Typ. .093 [2.36] Dia. Typ. .500 [12.70] Ref. .750 [19.05] .108 [2.74] Typ. .216 [5.49] Ref. .125 [3.18] Typ.</p> <p>14 CONTACTS</p> |
| <p>.0625 [1.59] Typ. .093 [2.36] Dia. Typ. .750 [19.05] Ref. 1.0 [25.40] .108 [2.74] Typ. .216 [5.49] Ref. .125 [3.18] Typ.</p> <p>20 CONTACTS</p> | <p>.0625 [1.59] Typ. .093 [2.36] Dia. Typ. 1.000 [25.40] Ref. 1.25 [31.75] .108 [2.74] Typ. .216 [5.49] Ref. .125 [3.18] Typ.</p> <p>26 CONTACTS</p> | <p>.0625 [1.59] Typ. .093 [2.36] Dia. Typ. 1.000 [25.40] Typ. 1.312 [33.32] .054 [1.37] Typ. .108 [2.74] Typ. .156 [3.96] Typ. .324 [8.23] Ref.</p> <p>34 CONTACTS</p> | |
| <p>.0625 [1.59] Typ. .093 [2.36] Dia. Typ. 1.250 [31.75] Ref. 1.562 [39.67] .156 [3.96] Typ. .054 [1.37] Typ. .108 [2.74] Typ. .324 [8.23] Ref.</p> <p>40 CONTACTS</p> | <p>.0625 [1.59] Typ. .093 [2.36] Dia. Typ. 1.500 [38.10] Ref. 1.812 [46.02] .156 [3.96] Typ. .054 [1.37] Typ. .108 [2.74] Typ. .324 [8.23] Ref.</p> <p>50 CONTACTS</p> | <p>.220 [5.59] .110 [2.79] .093 [2.36] Dia. Typ. 1.500 [38.10] Ref. 1.812 [46.02] .0625 [1.59] Typ. .108 [2.74] Typ. .540 [13.72] Ref. .156 [3.96] Typ.</p> <p>75 CONTACTS</p> | |

DIMENSIONS in inches [millimeters]

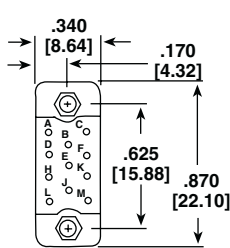
NOTE: The views below show the wiring side of a pin model connector (female is opposite). Socket hardware is assembled at "A" contact end of a pin model connector.



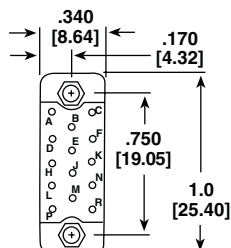
5 CONTACTS



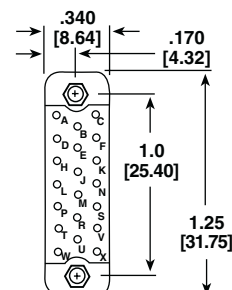
7 CONTACTS



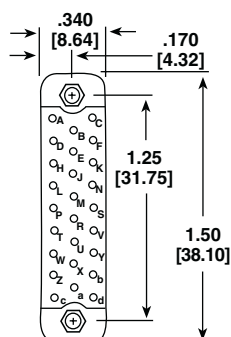
11 CONTACTS



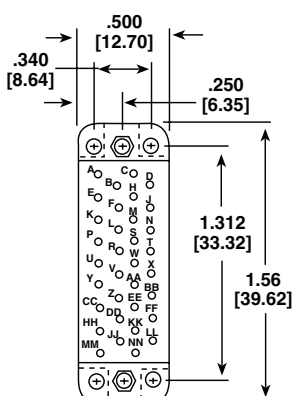
14 CONTACTS



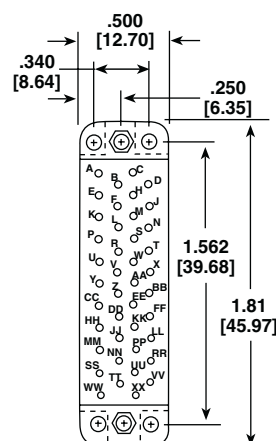
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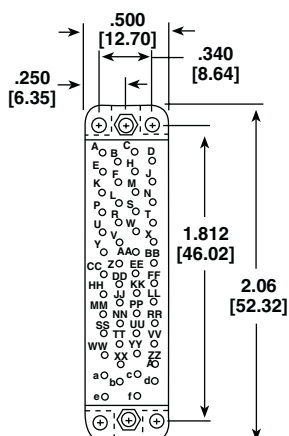
26 CONTACTS



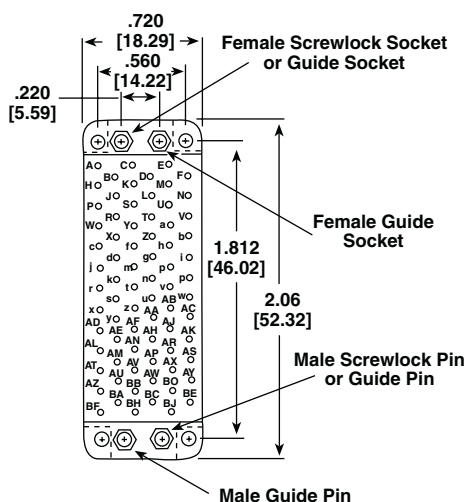
34 CONTACTS



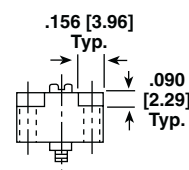
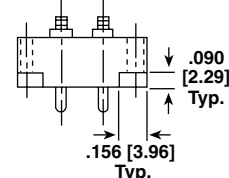
42 CONTACTS

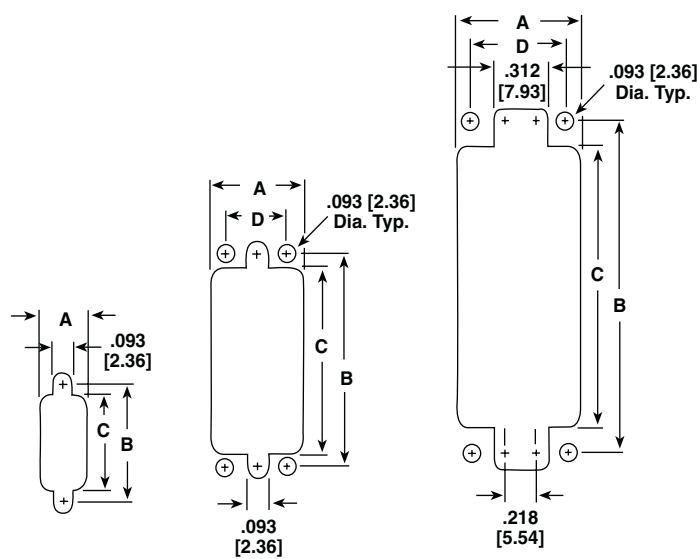


50 CONTACTS



75 CONTACTS

TYPICAL END VIEW
34 THRU 50 CONTACTSTYPICAL END VIEW
75 CONTACTS

PANEL CUTOUT in inches [millimeters]

FIGURE I
FIGURE II
FIGURE III

| 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 |

ORDERING INFORMATION

| C | SM | B | S | 20 | G | 26 | R | 027* |
|--|--------------|--|-----------------------|--------------|---|---|---|--|
| CONTACTS | MODEL | CONTACT TYPE | CONTACT STYLE | CONTACT SIZE | PLATING | NUMBER OF CONTACTS | (OPTIONAL) | HARDWARE OPTIONS |
| | Subminiature | | P = Pin S = Socket | #20 AWG | | 5, 7, 11, 14, 20, 26, 34, 42, 50, 75 | | |
| (OPTIONAL) Closed entry socket contacts only. Omit for standard contacts. | | | | | Optional plating available: G = Gold (.00003 thick) over nickel. G5 = Gold (.00005 thick) over nickel. Omit designator for gold (.00001 thick) over nickel. | | (OPTIONAL) R = Reversed guides or screwlocks. Omit for standard. | |
| | | (OPTIONAL) B = Beryllium copper, socket contacts (Solder cup). D = Dip solder contacts. | | | | | | (Omit if no hardware desired) 027 = Slotted cres guides .090" [2.29mm] diameter. SK = Turnable screwlocks with 2-56 threads. SK3 = Turnable screwlocks with 3-48 threads. SL = Fixed screwlocks with 2-56 threads. SL3 = Fixed screwlocks with 3-48 threads. SK030 = Turnable screwlocks with short slotted knobs. SK035 = Turnable screwlocks with socket head knobs. SK3030 = Turnable screwlocks with short slotted knobs with 3-48 threads. SK3035 = Turnable screwlocks with socket head knobs with 3-48 threads. |

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.



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