



Rack and Panel Connectors Military, MIL-C-28748/7/8 Qualified and Commercial Microminiature Rectangular with Optional Hoods



FEATURES

- Qualified to MIL-C-28748/7/8
- Solder cup contacts
- Dip solder contacts
- Fixed and turnable screwlocks
- Optional closed entry socket contacts

APPLICATIONS

Especially suited for use in airborne, instrumentation and portable equipment applications or wherever the following requirements must be met: Minimum space and weight without sacrifice of performance, high quality materials, long service life, high vibration and shock resistance and positive locking.

ELECTRICAL SPECIFICATIONS

Current Rating: Model MM22 = 5 A

Model MM24 = 3 A

Breakdown Voltage: At sea level: 2000 V_{RMS}

At 70 000 feet: 500 V_{RMS}

MATERIAL SPECIFICATIONS

Contact Pin: Phosphor bronze

Contact Socket: Phosphor bronze (Beryllium copper available on request)

Contact Plating: Gold

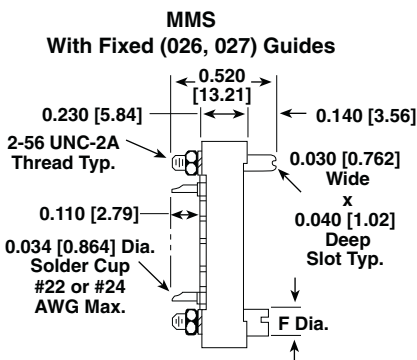
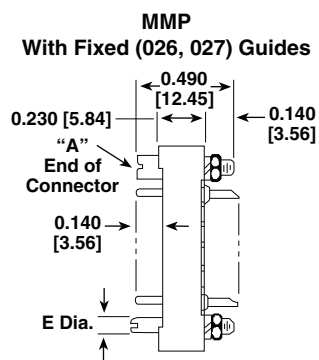
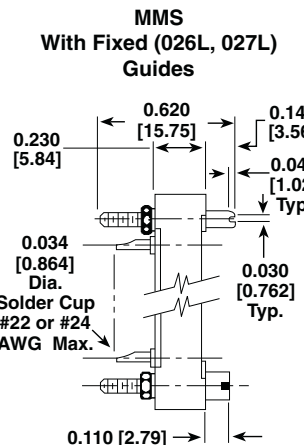
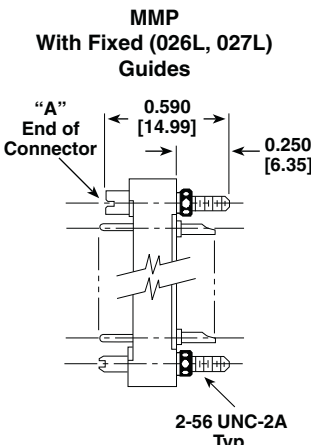
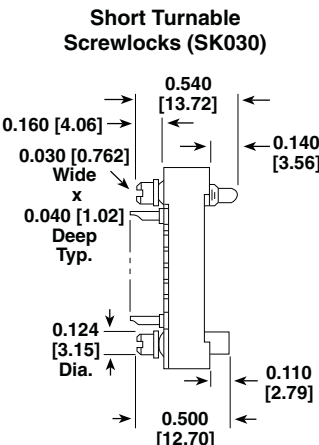
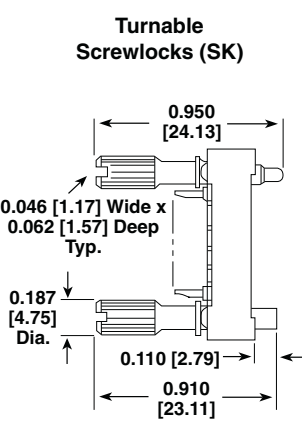
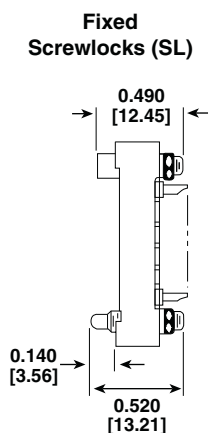
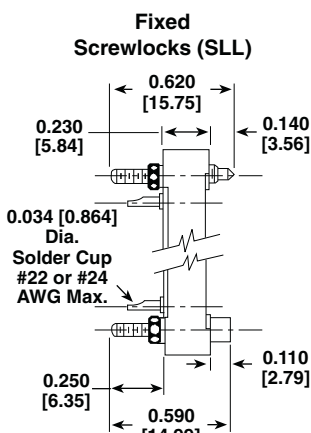
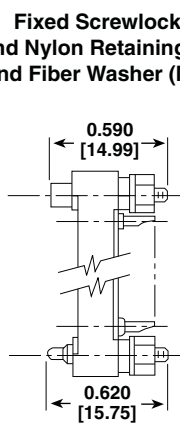
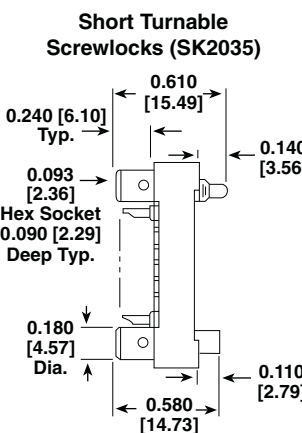
Screwlocks: Stainless steel, passivated

Guides: Brass, gold plated or stainless steel, passivated

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

DIMENSIONS in inches [millimeters]

MMS With Solder Cup Contacts		MMP With Solder Cup Contacts		MMDS With Dip Solder Contacts	MMDP With Dip Solder Contacts
CONTACT GAUGE	B DIAMETER	CONTACT GAUGE	C DIP TAIL LENGTH	D DIAMETER	
22 AWG	0.030 ± 0.001 [0.762 ± 0.025]	22 AWG	0.160 or 0.350 [4.06 or 8.89] nom.	0.025 [0.635]	
24 AWG	0.025 ± 0.001 [0.635 ± 0.025]	24 AWG	0.160 or 0.350 [4.06 or 8.89] nom.	0.025 [0.635]	

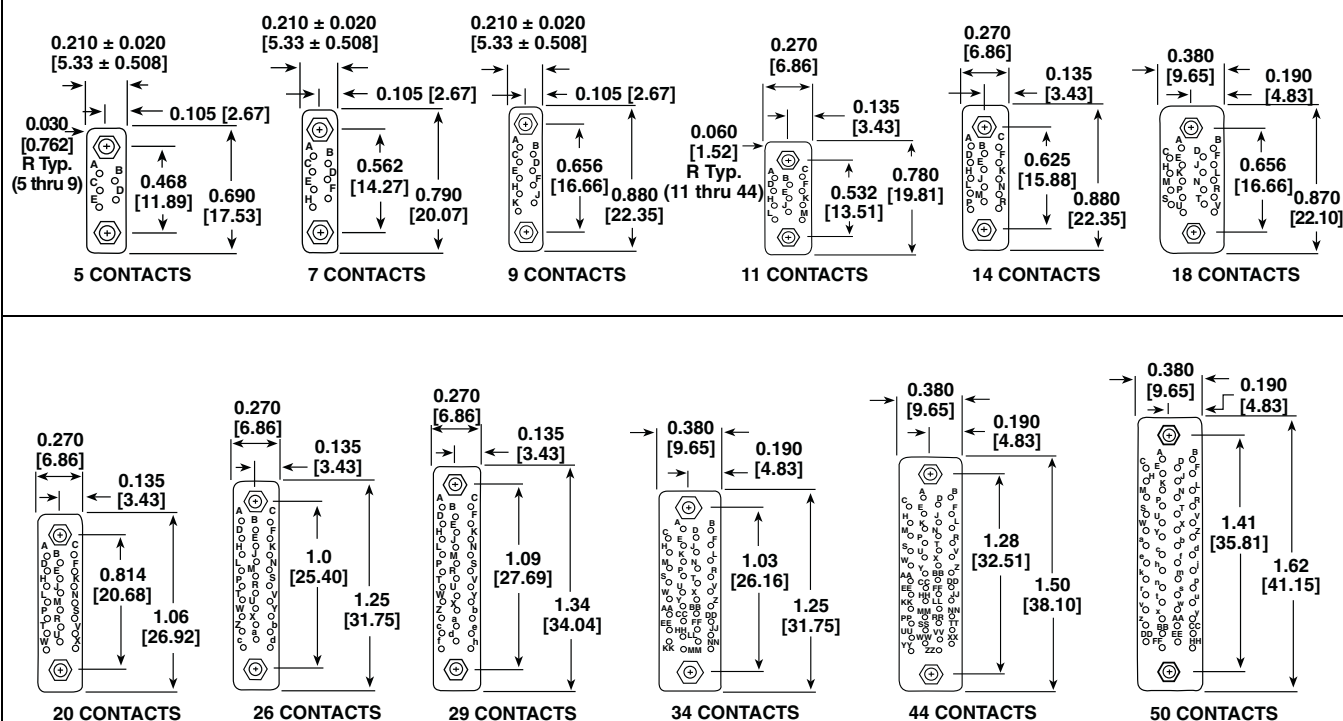
DIMENSIONS in inches [millimeters]				
 MMS With Fixed (026, 027) Guides 0.230 [5.84] 2-56 UNC-2A Thread Typ. 0.110 [2.79] 0.034 [0.864] Dia. Solder Cup #22 or #24 AWG Max. 0.520 [13.21] 0.140 [3.56] 0.030 [0.762] Wide x 0.040 [1.02] Deep Slot Typ. F Dia.	 MMP With Fixed (026, 027) Guides 0.230 [5.84] "A" End of Connector 0.490 [12.45] 0.140 [3.56] E Dia.	HARDWARE TYPE	E DIAMETER	F DIAMETER
		026	0.078 [1.98]	0.125 [3.17]
		026L	0.078 [1.98]	0.125 [3.17]
		027	0.078 [1.98]	0.125 [3.17]
		027L	0.078 [1.98]	0.125 [3.17]
 MMS With Fixed (026L, 027L) Guides 0.230 [5.84] 0.620 [15.75] 0.140 [3.56] 0.040 [1.02] Typ. 0.034 [0.864] Dia. Solder Cup #22 or #24 AWG Max. 0.030 [0.762] Typ. 0.110 [2.79]	 MMP With Fixed (026L, 027L) Guides "A" End of Connector 0.590 [14.99] 0.250 [6.35] 2-56 UNC-2A Typ.	 Short Turnable Screwlocks (SK030) 0.160 [4.06] 0.030 [0.762] Wide x 0.040 [1.02] Deep Typ. 0.540 [13.72] 0.140 [3.56] 0.124 [3.15] Dia. 0.500 [12.70] 0.110 [2.79]	 Turnable Screwlocks (SK) 0.950 [24.13] 0.046 [1.17] Wide x 0.062 [1.57] Deep Typ. 0.187 [4.75] Dia. 0.110 [2.79] 0.910 [23.11]	
 Fixed Screwlocks (SL) 0.490 [12.45] 0.140 [3.56] 0.520 [13.21]	 Fixed Screwlocks (SLL) 0.620 [15.75] 0.230 [5.84] 0.140 [3.56] 0.034 [0.864] Dia. Solder Cup #22 or #24 AWG Max. 0.250 [6.35] 0.590 [14.99] 0.110 [2.79]	 Fixed Screwlocks And Nylon Retaining Nut And Fiber Washer (NSL) 0.590 [14.99] 0.620 [15.75]	 Short Turnable Screwlocks (SK2035) 0.240 [6.10] Typ. 0.610 [15.49] 0.140 [3.56] 0.093 [2.36] Hex Socket 0.090 [2.29] Deep Typ. 0.180 [4.57] Dia. 0.580 [14.73] 0.110 [2.79]	

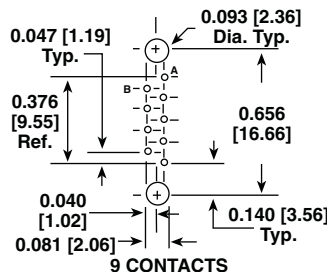
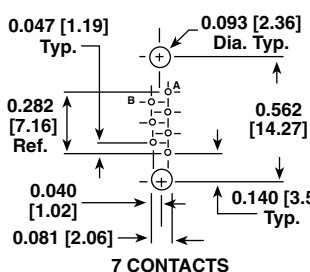
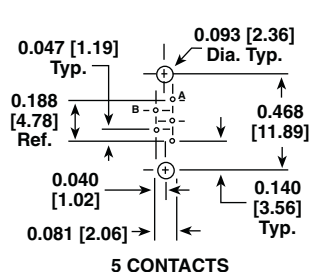
HARDWARE MATING CHART

HARDWARE MODEL	MATES WITH HARDWARE MODEL	NOTE:
026	026, 026L	
027	027, 027L	EITHER MMP OR MMS CONNECTORS MAY BE ORDERED WITH ANY TYPE OF HARDWARE SHOWN. EXAMPLES: 1. MMP WITH 026 HARDWARE WOULD MATE WITH AN MMS WITH 026 HARDWARE. 2. MMS WITH SK HARDWARE WOULD MATE WITH AN MMP WITH SL OR NSL HARDWARE. 3. MMS WITH SL2 HARDWARE WOULD MATE WITH AN MMP WITH SK2 OR SK2030 HARDWARE.
SK	SL, NSL or SLL	
SK030	SL, NSL or SLL	
SK2	SL2, NSL2 or SL2L	
SK2030	SL2, NSL2 or SL2L	
SK2035	SL2, NSL2 or SL2L	

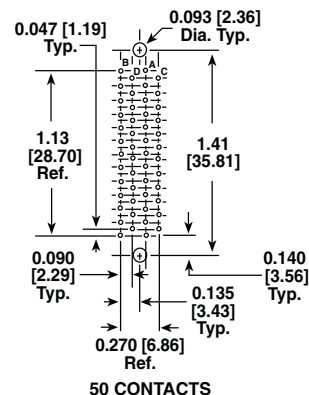
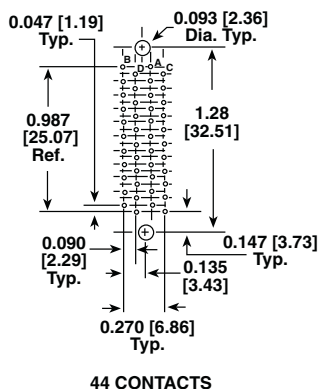
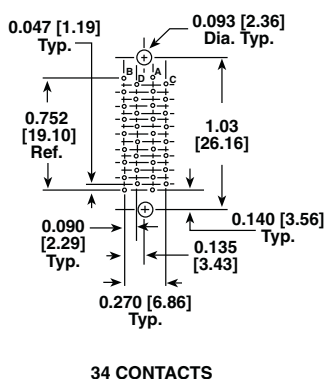
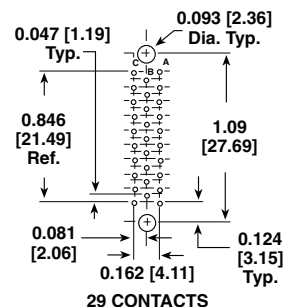
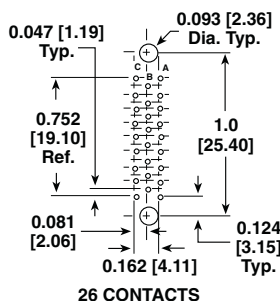
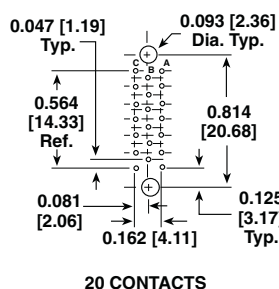
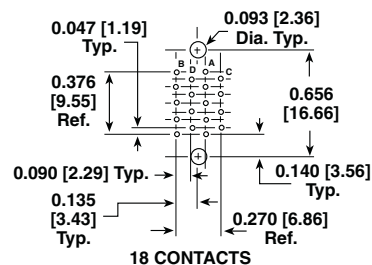
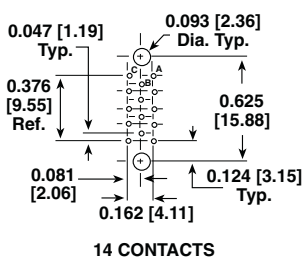
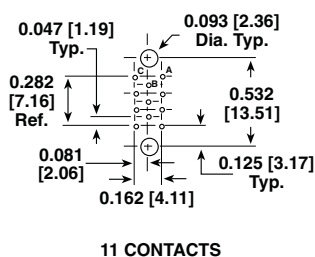
DIMENSIONS in inches [millimeters]

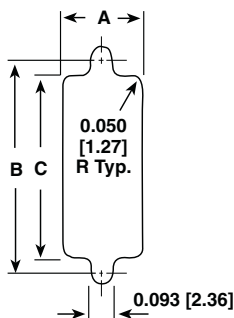
NOTE: The views below show the wiring side of a pin model connector (female is opposite). Socket hardware assembled at "A" contact end of a pin model connector.



MOUNTING VARIATIONS in inches [millimeters]

DIP SOLDER PC BOARD MOUNTING PATTERNS

Male (MMP) connector shown - female is opposite. Contact, contact row and mating hole C_L to C_L . Dimensions also applies to solder cup style connectors.

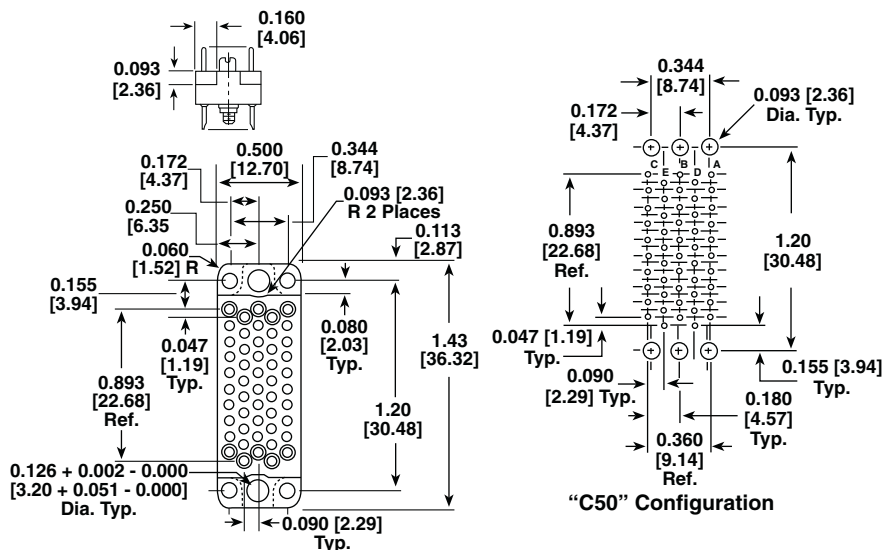


PANEL CUTOUT in inches [millimeters]

NUMBER OF CONTACTS	A	B	C	NUMBER OF CONTACTS	A	B	C
5	0.210 [5.33]	0.468 [11.89]	0.340 [8.64]	20	0.270 [6.86]	0.814 [20.68]	0.690 [17.53]
7	0.210 [5.33]	0.562 [14.27]	0.440 [11.18]	26	0.270 [6.86]	1.0 [25.40]	0.870 [22.10]
9	0.210 [5.33]	0.656 [16.66]	0.530 [13.46]	29	0.270 [6.86]	1.09 [27.69]	0.970 [24.64]
11	0.270 [6.86]	0.532 [13.51]	0.410 [10.41]	34	0.380 [9.65]	1.03 [26.16]	0.910 [23.11]
14	0.270 [6.86]	0.625 [15.88]	0.500 [12.70]	44	0.380 [9.65]	1.28 [32.51]	1.16 [29.46]
18	0.380 [9.65]	0.656 [16.66]	0.530 [13.46]	50	0.380 [9.65]	1.41 [35.81]	1.28 [32.51]

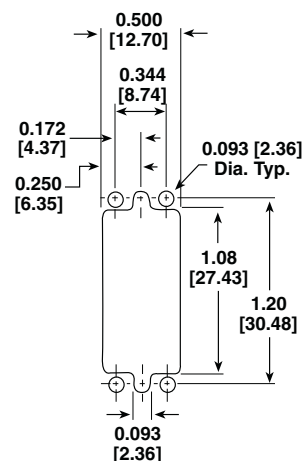
DIMENSIONS in inches [millimeters]

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



PANEL CUTOUT

in inches [millimeters]



DIP SOLDER PC BOARD MOUNTING PATTERNS

Male (MMP) connector shown - female is opposite. Contact, contact row and mating hole C_L to C_L dimensions also applies to solder cup style connectors.

HOOD VARIATIONS in inches [millimeters]

027H					
11, 14, 20, 26, 29 CONTACTS					
34, 44, 50 CONTACTS					
SKH or SK2H					
5, 7, 9 CONTACTS					
11, 14, 20, 26, 29 CONTACTS					
34, 44, 50 CONTACTS					
NUMBER OF CONTACTS	A ± 0.016 [0.406]	B ± 0.030 [0.76]	C	D ± 0.016 [0.406]	"E" CABLE OPENING SQ. IN. [mm ²]
5	0.690 [17.53]	0.650 [16.51]	0.468 [11.89]	0.310 [7.87]	0.028 [0.711]
7	0.780 [19.81]	0.650 [16.51]	0.562 [14.27]	0.440 [11.18]	0.037 [0.940]
9	0.870 [22.10]	0.650 [16.51]	0.656 [16.66]	0.500 [12.70]	0.052 [1.321]
11	0.780 [19.81]	0.650 [16.51]	0.532 [13.51]	0.440 [11.18]	0.054 [1.372]
14	0.870 [22.10]	0.650 [16.51]	0.625 [15.88]	0.500 [12.70]	0.076 [1.930]
20	1.06 [26.92]	0.650 [16.51]	0.814 [20.68]	0.620 [15.75]	0.105 [2.667]
26	1.25 [31.75]	0.650 [16.51]	1.00 [25.40]	0.620 [15.75]	0.105 [2.667]
29	1.34 [34.04]	0.650 [16.51]	1.09 [27.67]	0.620 [15.75]	0.105 [2.667]
34	1.25 [31.75]	0.650 [16.51]	1.03 [26.16]	0.500 [12.70]	0.160 [4.064]
44	1.50 [38.10]	1.17 [29.72]	1.28 [32.51]	0.500 [12.70]	0.190 [4.826]
50	1.62 [41.15]	1.17 [29.72]	1.41 [35.81]	0.620 [15.75]	0.202 [5.131]



ORDERING INFORMATION

CONNECTOR							HARDWARE			HOODS	
C	MM	D1	B	P	22	G	-	5	R	026 ⁽¹⁾	H
CONTACTS	MODEL	TERMINATION	(OPTIONAL)	CONTACT STYLE	CONTACT SIZE	PLATING		NUMBER OF CONTACTS	(OPTIONAL)	HARDWARE VARIATIONS	HOOD VARIATIONS
	Microminiature			P = Pin S = Socket					R = Reversed guides or screwlocks (Omit for standard)		(Omit if no Hood desired) 027H = Hood (top cable opening) with standard 027 Slotted cres guides This option is not available in the C50 contact size SKH = Hood (top cable opening) with long SK-model turnable screwlocks (3-48 NF) and knobs This option is not available in the 34, 44, 50 and C50 contact sizes. SK2H = Hood (top cable opening) with long SK-model turnable screwlocks (2-56 NF) and knobs. This option is not available in the C50 contact size.
		(OPTIONAL) Dip solder termination optional. (Omit for standard solder cup) Select tail length: D1 = 0.160" [4.06 mm] nominal D2 = 0.350" [8.89 mm] nominal	B = Beryllium copper contacts optional on solder cup socket contacts only . (Omit for standard contacts)		22 AWG = 0.030" [0.762 mm] diameter 24 AWG = 0.025" [0.635 mm] diameter						
						Optional plating available: G = Gold (0.00003 thick) over Nickel G5 = Gold (0.00005 thick) over Nickel Omit designator for gold (0.00001 thick) over Nickel					
								5, 7, 9, 11, 14, 18, 20, 26, 29, 34, 44 or 50 ⁽²⁾			
		(OPTIONAL) Closed entry socket contacts optional on 22 AWG socket contacts only . (Omit for standard contacts)									
										(Omit if no hardware desired) 026 = Slotted brass guides 0.078" [1.98 mm] diameter 026L = Long slotted brass guides 0.078" [1.98 mm] diameter 027 = Slotted cres guides 0.078" [1.98 mm] diameter 027L = Longslotted cres guides 0.078" [1.98 mm] diameter SL = Chassis mounted fixed screwlocks (3-48 thread) SL2 = Chassis mounted fixed screwlocks (2-56 thread) SLL = Chassis mounted fixed screwlocks long (3-48 thread) SL2L = Chassis mounted fixed screwlocks long (2-56 thread) NSL = Chassis mounted fixed screwlocks (3-48 thread) with nylon retaining nuts and fiber washers NSL2 = Chassis mounted fixed screwlocks (3-48 thread) with nylon retaining nuts and fiber washers SK = Cable mounted - turnable screwlocks (3-48 thread) SK2 = Cable mounted - turnable screwlocks (2-56 thread) SK030 = Cable mounted - turnable screwlocks (3-48 thread) with short knobs SK2030 = Cable mounted - turnable screwlocks (2-56 thread) with short knobs SK2035 = Cable mounted - tunable screwlocks (2-56 thread) with socket head knobs	

Notes

- ⁽¹⁾ To order complete connector with hardware supplied unassembled, add suffix "UA" on end of hardware designation.
- ⁽²⁾ 50 contact connectors are available in either the standard 4-row contact arrangement per MIL-C-28748 or a special 5-row contact arrangement. To order the special 5-row contact arrangement, use the designator "C50" for the number of contacts.



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