



# 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<sub>RMS</sub>

At 70 000 feet: 500 V<sub>RMS</sub>

## 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]				
<b>MMS</b> With Solder Cup Contacts 		<b>MMP</b> With Solder Cup Contacts 		
<b>MMDS</b> With Dip Solder Contacts 		<b>MMDP</b> 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]

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

HARDWARE MATING CHART		
HARDWARE MODEL	MATES WITH HARDWARE MODEL	NOTE:
026	026, 026L	<p>EITHER MMP OR MMS CONNECTORS MAY BE ORDERED WITH ANY TYPE OF HARDWARE SHOWN.</p> <p>EXAMPLES:</p> <ol style="list-style-type: none"> <li>1. MMP WITH 026 HARDWARE WOULD MATE WITH AN MMS WITH 026 HARDWARE.</li> <li>2. MMS WITH SK HARDWARE WOULD MATE WITH AN MMP WITH SL OR NSL HARDWARE.</li> <li>3. MMS WITH SL2 HARDWARE WOULD MATE WITH AN MMP WITH SK2 OR SK2030 HARDWARE.</li> </ol>
027	027, 027L	
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	



**MOUNTING VARIATIONS** in inches [millimeters]



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]



**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]

HOOD VARIATIONS in inches [millimeters]					
<b>027H</b>  5, 7, 9 CONTACTS		 11, 14, 20, 26, 29 CONTACTS		 34, 44, 50 CONTACTS	
<b>SKH or SK2H</b>  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 <sup>2</sup> ]
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



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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