

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 amps

Model MM24 = 3 amps

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

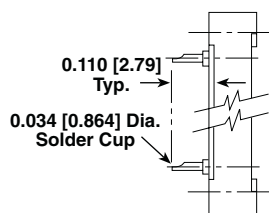
Guides: Brass, gold plated or stainless steel, passivated

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

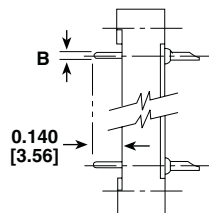


DIMENSIONS in inches [millimeters]

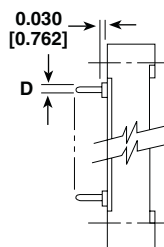
MMS
With Solder Cup Contacts



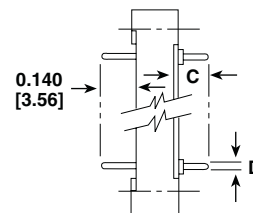
MMP
With Solder Cup Contacts



MMDS
With Dip Solder Contacts



MMDP
With Dip Solder Contacts





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DIMENSIONS in inches [millimeters]

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]

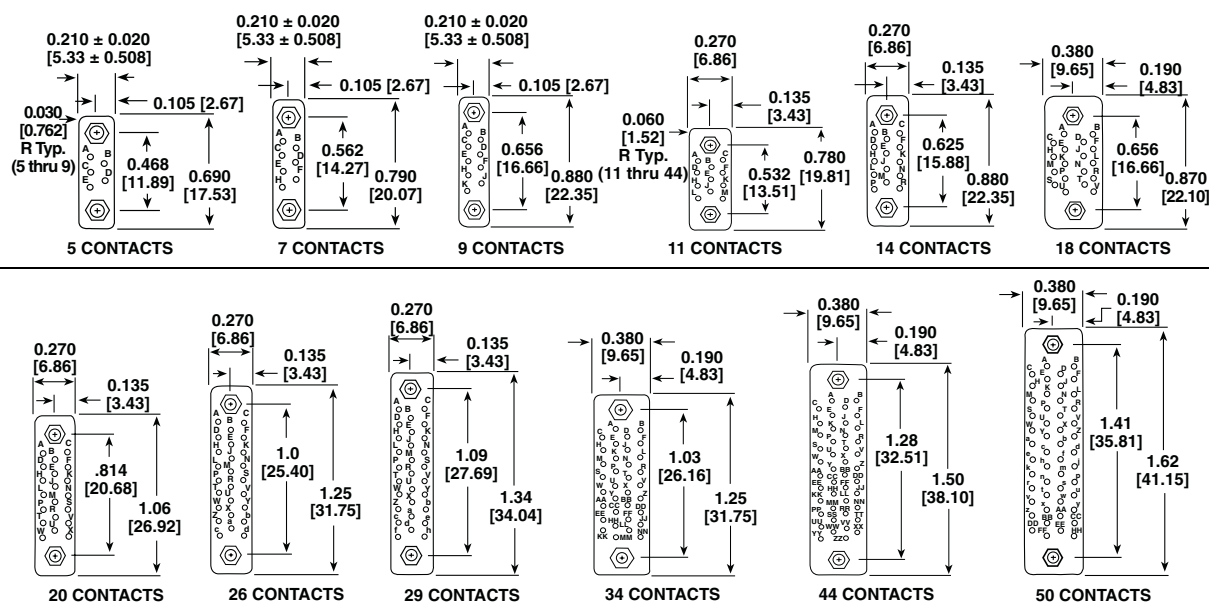
MMS With Fixed (026, 027) Guides		MMP With Fixed (026, 027) Guides		HARDWARE TYPE	E DIAMETER	F DIAMETER
				026	0.078 [1.98]	0.125 [3.17]
				026L	0.078 [1.98]	0.125 [3.17]
				027	0.078 [1.98]	0.125 [3.17]
				027L	0.078 [1.98]	0.125 [3.17]
MMS With Fixed (026L, 027L) Guides		MMP With Fixed (026L, 027L) Guides		Short Turnable Screwlocks (SK030)		
				Turnable Screwlocks (SK)		
Fixed Screwlocks (SL)		Fixed Screwlocks (SLL)		Fixed Screwlocks And Nylon Retaining Nut And Fiber Washer (NSL)		
				Short Turnable Screwlocks (SK2035)		

HARDWARE MATING CHART

HARDWARE MODEL	MATES WITH HARDWARE MODEL	NOTE: 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.
026	026, 026L	
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	

DIMENSIONS in inches [millimeters]

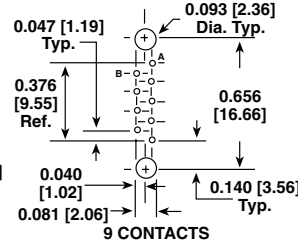
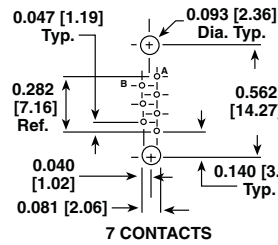
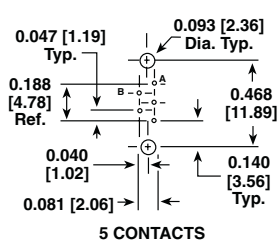
NOTE: The views below show the wiring side of a pin model connector (female is opposite). Socket hardware assembled at "A" contact end of a pin model connector.



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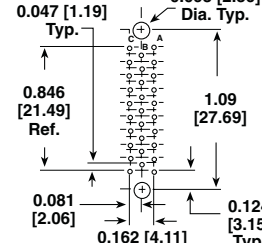
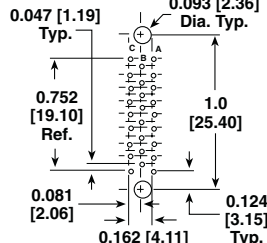
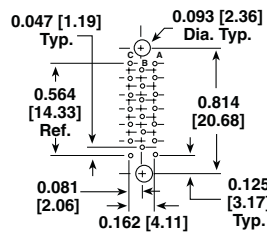
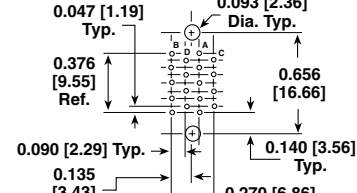
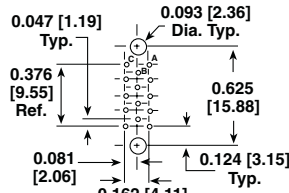
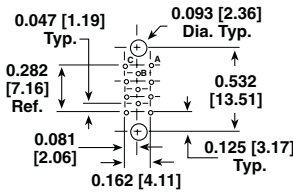
MOUNTING VARIATIONS in inches [millimeters]



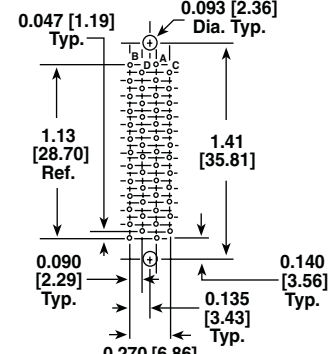
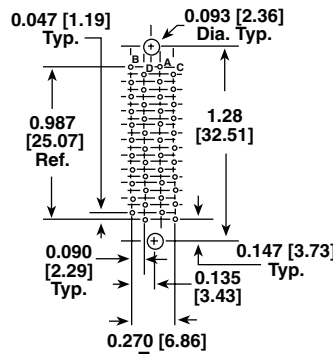
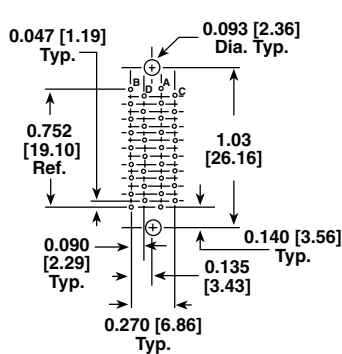
DIP SOLDER PC BOARD MOUNTING PATTERNS

Male (MMP) Connector Shown - Female is Opposite.

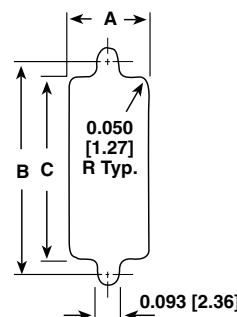
Contact, Contact Row and Mating Hole C to C Dimensions also Applies to Solder Cup Style Connectors.



MOUNTING VARIATIONS in inches [millimeters]

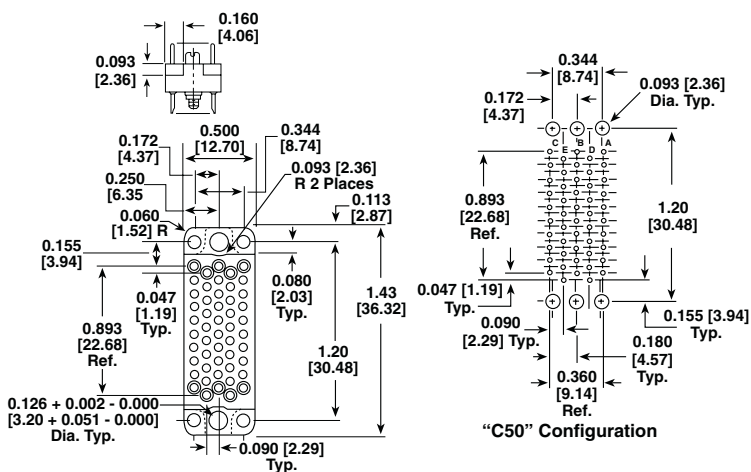


PANEL CUTOUT in inches [millimeters]

	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]

DIMENSIONS in inches (millimeters)

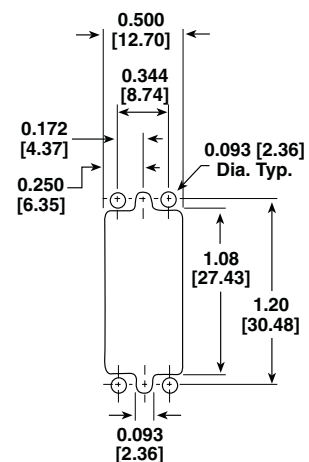
NOTE: The views below show the wiring side of a pin model connector (Socket style is opposite). Socket hardware is assembled at "A" contact end of pin connector.



DIP SOLDER PC BOARD MOUNTING PATTERNS: Male (MMP) Connector Shown - Female is Opposite. Contact, Contact Row and Mating Hole C to C Dimensions also Applies to Solder Cup Style Connectors.

PANEL CUTOUT

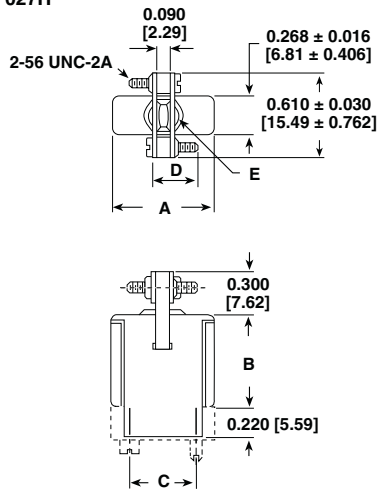
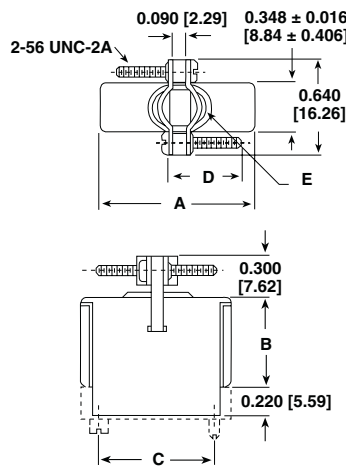
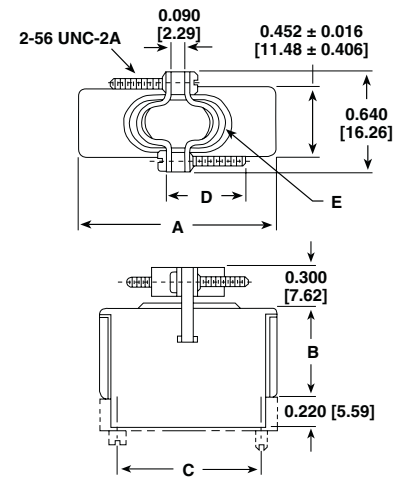
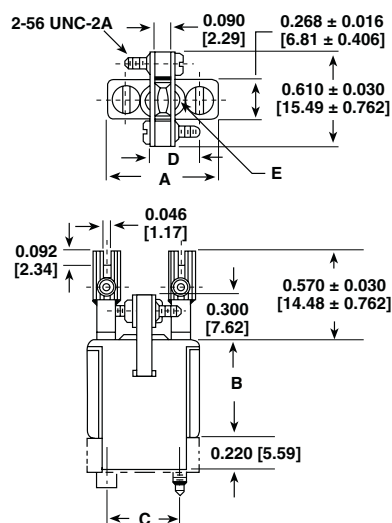
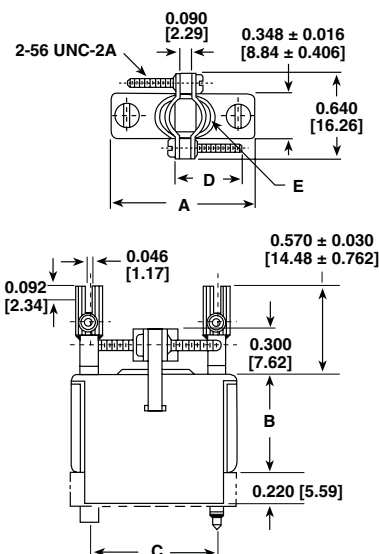
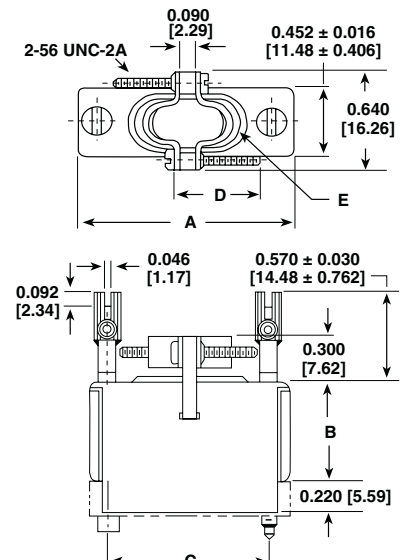
in inches (millimeters)





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HOOD VARIATIONS in inches [millimeters]**027H****5, 7, 9 CONTACTS****11, 14, 20, 26, 29 CONTACTS****34, 44, 50 CONTACTS****SKH or SK2H****5, 7, 9 CONTACTS****NUMBER A****11, 14, 20, 26, 29 CONTACTS****B****34, 44, 50 CONTACTS****D "E" CABLE OPENING**

NUMBER OF CONTACTS	A ± 0.016 [0.406]	B ± 0.030 [0.76]	C	D ± 0.016 [0.406]	"E" CABLE OPENING SQ. IN. [Sq. MM]
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]



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ORDERING INFORMATION

CONNECTOR					HARDWARE		HOODS			
C	MM	D1	B	P	22	G	5	R	026*	H
CONTACTS	MODEL	TERMINATION	(OPTIONAL)	CONTACT STYLE	CONTACT SIZE	PLATING	NUMBER OF CONTACTS	(OPTIONAL)	HARDWARE VARIATIONS	HOOD VARIATIONS
	Microminiature			P = Pin S = Socket	22 AWG = 0.030" [0.762mm] Diameter 24 AWG = 0.025" [0.635mm] Diameter			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)			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.				
		(OPTIONAL)* Closed entry socket contacts optional on 22 AWG socket contacts only . (Omit for standard contacts)				5, 7, 9, 11, 14, 18, 20, 26, 29, 34, 44 or 50* *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.				
(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 = Long Slotted 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 (2-56 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 - Turnable Screwlocks (2-56 thread) with socket head knobs										

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



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