

Contact Specifications

PM Series • MIL-DTL-5015 Solder Type Connectors

Wire & Solder Dimensions

Contact Size	Wire Range		Potential Drop (Millivolts)	Max Contact Resistance (Milliohm)	Solder Well Depth	Solder Well Inside Diameter	Solder Well Outside Diameter	Contact Retention Axial Load Pounds (Newtons)	Separation Force Min Pounds (Newtons)
	AWG	Dia							
#16	16, 18, 20, 22	.025-.050 (.64-1.29)	<50	6	.250 (6.4)	.078 (2.0)	.103 (2.6)	10 (44)	.25 (1)
#12	12, 14	.064-.080 (1.62-2.05)	<42	3	.375 (9.5)	.116 (2.9)	.146 (3.7)	15 (67)	.50 (2)
#8	8, 10	.10-.12 (2.58-3.26)	<26	1	.500 (12.7)	.209 (5.3)	.256 (6.5)	20 (89)	.75 (3)
#4	4, 6	.16-.20 (4.11-5.18)	<23	.5	.625 (15.9)	.332 (8.4)	.394 (10.0)	20 (89)	1.00 (4)
#0	0, 1, 2	.25-.32 (6.54-8.25)	<21	.2	.625 (15.9)	.469 (11.9)	.547 (13.9)	25 (111)	2.00 (9)

Test ratings only. A connector cannot withstand maximum current through all contacts continuously. Please note that the establishment of electrical safety factors is left entirely in the designer's hands, since he or she is in the best position to know what peak voltage, switching surges, transients, etc. can be expected in a particular circuit. Dimensions are in inches (mm) unless otherwise noted.

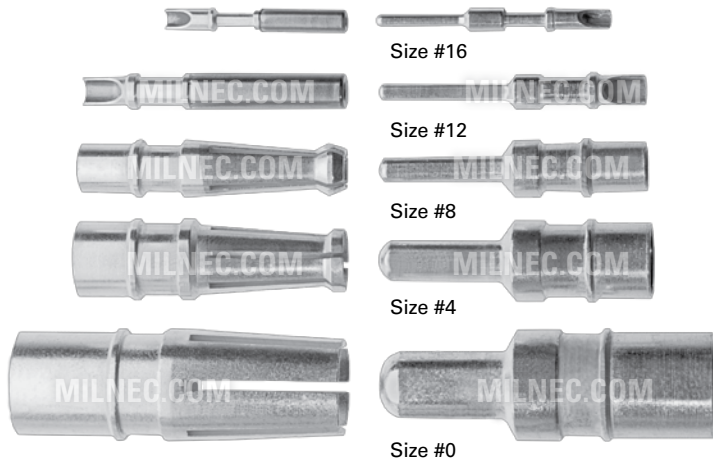
Current Rating By Contact Size & Wire Size

Wire Size (AWG)	Contact Size				
	#16	#12	#8	#4	#0
22	5A				
20	7.5A				
18	10A				
16	13A				
14		17A			
12		23A			
10			33A		
8			46A		
6				60A	
4				80A	
2					100A
1					125A
0					150A

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PM Series Contacts

Below are the PM Series solder contacts shown in actual size. This illustration can help determine which size contact will best fit a wire if you do not know the wire gauge being used.



Recommended Insulation Strip Length

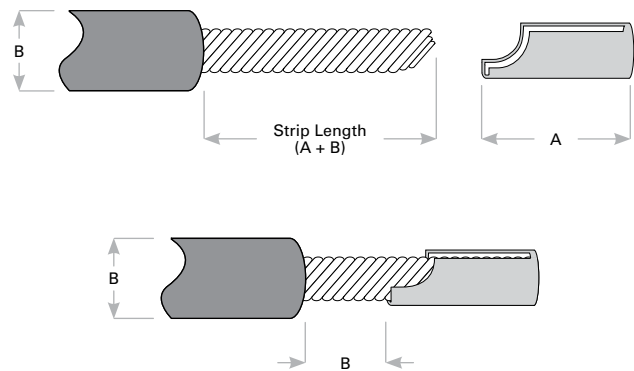
The recommended insulation strip length found in the table below can be used for standard insulated wire. For heavy jacketed wire, insulation strip length can be quickly and easily calculated by adding the contact solder well depth (A) to the wire's outside insulation diameter (B). The conductor should be exposed to a length that will bring the insulation clearance above the solder cup equal to the outside diameter of the insulation (B) when the wire is inserted in the solder cup to its full depth.

When removing the insulation from conductors always use a thermal precision cutter or jacket stripping device. Care must be exercised to prevent damage to the individual wire strands or conductor when cutting the jacket insulation.

Strip Length

Contact Size	(A) Well Depth	Recommended Strip Length
#16	.200 (5.1)	.250 (6.4)
#12	.245 (6.2)	.375 (9.5)
#8	.350 (8.9)	.500 (12.7)
#4	.500 (12.7)	.625 (15.9)
#0	.575 (14.6)	.625 (15.9)

Dimensions are in inches (mm).



Rev. 1301.1

Contact Derating Specifications

Service Rating	Max Operating Voltage at Sea Level		Nominal Distance in Inches (mm)		Mechanical Spacing Nominal	Standard Sea Level Conditions		Pressure Altitude 50,000 ft		Pressure Altitude 70,000 ft	
	AC (RMS)	DC	Airspace	Creepage		Min Flashover Voltage AC (RMS)	Test Voltage AC (RMS)	Min Flashover Voltage AC (RMS)	Test Voltage AC (RMS)	Min Flashover Voltage AC (RMS)	Test Voltage AC (RMS)
Inst.	200	250	.0312 (.8)	.063 (1.6)	—	1,400	1,000	500	400	325	260
A	500	700	.063 (1.6)	.125 (3.2)	.063 (1.6)	2,800	2,000	800	600	450	360
D	900	1,250	.125 (3.2)	.188 (4.8)	.125 (3.2)	3,600	2,800	900	675	500	400
E	1,250	1,750	.188 (4.8)	.250 (6.4)	.188 (4.8)	4,500	3,500	1,000	750	550	440
B	1,750	2,450	.250 (6.4)	.313 (8.0)	.250 (6.4)	5,700	4,500	1,100	825	600	480
C	3,000	4,200	.313 (8.0)	1.000 (25.4)	.313 (8.0)	8,500	7,000	1,300	975	700	560

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Torque Values For Cable Clamp Screws

Screw Size	Recommended Torque	
	Min	Max
#2-56	1.5 (.2)	2.5 (.3)
#4-40	3.5 (.4)	4.5 (.5)
#6-32	5 (.6)	7 (.8)
#8-32	7 (.8)	9 (1.0)
#10-32	9 (1.0)	11 (1.2)
#.250-20	11 (1.2)	13 (1.5)

Units are in inch pounds (Newton meters).

Wire Sealing Range

Contact Size	Wire Size (AWG)	Insulation Outside Diameter Range	
		Min	Max
#16	16, 18, 20, 22	.064 (1.63)	.130 (3.30)
#12	12, 14	.114 (2.90)	.170 (4.32)
#8	8, 10	.164 (4.17)	.255 (6.48)
#4	4, 6	.275 (6.98)	.370 (9.40)
#0	0, 1, 2	.415 (10.54)	.550 (13.97)

Dimensions are in inches (mm) unless otherwise noted.

PM

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