Wire & Solder Dimensions

	Contact	Wire Range			Max Contact Resistance		Solder Well	Solder Well	Contact Retention Min Axial Load
	Size	AWG	Dia	(Millivolts)	(Milliohm)	Depth	Inside Diameter	OutsideDiameter	Pounds (Newtons)
	#20	20, 22, 24	.020032 (.5181)	<55	9	.125 (3.2)	.046 (1.2)	.063 (1.6)	15 (66.7)
	#16	16, 18, 20	.032050 (.81-1.29)	<50	6	.188 (4.8)	.078 (2.0)	.100 (2.5)	25 (111.2)

Dimensions are in inches (mm) unless otherwise noted.

Current Rating By Contact Size & Wire Size

Wire Size	Contact Size	
(AWG)	#20	#16
24	3A	
20	7.5A	7.5A
16		13A

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

Contact Derating Specifications

	Max Operating Voltage - Sea Level		Test Voltage			
Service Rating			Sea Level	50,000 ft	70,000 ft	110,000 ft
J	AC (RMS)	DC	AC (RMS)	AC (RMS)	AC (RMS)	AC (RMS)
I	600	850	1,500	500	375	200
II	1,000	1,275	2,300	750	500	200

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.

Coupling Torque

Shell Size	Maximum Engagement & Disengagement	Minimum Disengagement	
8	8 (.9)	1 (.1)	
10	12 (1.4)	1 (.1)	
12	16 (1.8)	2 (.3)	
14	20 (2.3)		
16	24 (2.7)	4 (.5)	
18	28 (3.2)		
20	32 (3.6)	6 (.7)	
22	36 (4.1)	7 (.8)	
24	44 (5.0)	7 (.0)	

Units are in inch pounds (Newton meters).

Torque Values For Cable Clamp Screws

		•
Screw	Recomme	nded Torque
Size	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).

Rev. 1301.1

Wire Sealing Range

Contact	Wire Size	Insulation Outside Diameter Range		
Size	(AWG)	Min	Max	
#20	20, 22, & 24	.060 (1.52)	.083 (2.11)	
#16	16, 18, & 20	.066 (1.68)	.109 (2.77)	

Dimensions are in inches (mm) unless otherwise noted.

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	
#20	.165 (4.2)	.250 (6.6)	
#16	.245 (6.2)	.350 (8.9)	

Dimensions are in inches (mm).



