

# QWL solder contacts

Machined copper alloy contacts in a full range of sizes, with closed entry socket design in the size 12 and 16 contacts. A heavy silver-plated finish is deposited on all MS style solder contacts for maximum corrosion resistance, maximum current carrying capacity and low millivolt drop.

**MS/STANDARD SOLDER CONTACTS\***

Part Number	Pin/Socket	Mating End Size	Wire Barrel Size	Allowable Wire Size	Test Current** Amps
10-40569	Pin	16 Short†	16	16	13
10-597107-161	Socket			18	10
				20	7.5
				22	5
10-40599	Pin	16 Long	16	16	13
10-597107-171	Socket			18	10
				20	7.5
				22	5
10-33646	Pin	12	12	12	23
10-597107-131	Socket			14	17
10-35531	Pin	8	8	8	46
10-35532	Socket			10	33
10-35529	Pin	4	4	4	80
10-35530	Socket			6	60
10-35527	Pin	0	0	0	150
10-35528	Socket			1	125
				2	100

\* Solder Wells Filled

\*\* Contact ratings as stated are test ratings only. The connector could not withstand full rated current through all contacts continuously. Please note that the electrical data given is not an establishment of electrical safety factors. This is left entirely in the designer's hands as he can best determine which peak voltage, switching surges, transients, etc. can be expected in a particular circuit.

† The 12S, 14S and 16S connectors require short contacts.

**TABLE I  
CONTACT ARRANGEMENT SERVICE RATING**

MS Service Rating	Recommended Operating Voltage* at Sea Level		Effective Creepage Distance Nom.	Mechanical Spacing Nom.
	DC	AC (RMS)		
Inst.	250	200	1/16	
A	700	500	1/8	1/16
D	1250	900	3/16	1/8
E	1750	1250	1/4	3/16
B	2450	1750	5/16	1/4
C	4200	3000	1	5/16

\* The values listed in Table I represent operating values which include a generous safety factor. It may be necessary for some applications to exceed the operating voltages listed here. If this is necessary, designers will find Table II useful for determining the degree to which the recommended values of Table I can be exceeded.

**TABLE II  
ALTITUDE VOLTAGE DERATING\*\* CHART**

MS Service Rating	Nominal Distance		Standard Sea Level Conditions		Pressure Altitude† 50,000 Feet		Pressure Altitude† 70,000 Feet	
	Airspace	Creepage	Minimum Flashover Voltage AC (RMS)	Test Voltage AC (RMS)	Minimum Flashover Voltage AC (RMS)	Test Voltage AC (RMS)	Minimum Flashover Voltage AC (RMS)	Test Voltage AC (RMS)
Inst.	1/32	1/16	1400	1000	500	400	325	260
A	1/16	1/8	2800	2000	800	600	450	360
D	1/8	3/16	3600	2800	900	675	500	400
E	3/16	1/4	4500	3500	1000	750	550	440
B	1/4	5/16	5700	4500	1100	825	600	480
C	5/16	1	8500	7000	1300	975	700	560

† Not corrected for changes in density due to variations in temperature.

\*\* No attempt has been made to recommend operating voltages. The designer must determine his own operating voltage by the application of a safety factor to the above derating chart to compensate for circuit transients, surges, etc.