

MATERIALS AND FINISHES

Shell	Aluminum alloy 6061 T6, stainless steel passivated
Insert	Polyphenylene sulfide (PPS)
Contact Retention Clip	Beryllium copper, heat-treated, unplated
Contacts	50u" gold-plated copper alloy
Socket Contact Hood	Passivated stainless steel
Grommet & Seals	Fluorosilicone rubber
Adhesives	Epoxy film and RTV's
Potting Compound for PCB & Solder Versions	High-strength epoxy

ELECTRICAL DATA

Contact Sizes 23, 20, 20HD, 16, & 12 AWG

Operating Voltage & Test Voltage (Mated Condition)

CONTACT SIZE	23	20	20HD	16	12
Sea Level VAC	500	1800	750	1800	1800
40,000 Feet VAC	100	325	150	1000	1000

Current Rating (Max)

CONTACT SIZE	AMPERES
23	5
20	7.5
16	13
12	23

Contact Resistance

WIRE SIZE	TEST CURRENT	MAX VOLTAGE DROP
12	23	42
14	17	40
16	13	49
20	7.5	55
22	5	73
24	3	45
26	2	52
28	1.5	54

Insulation Resistance 5,000 megaohms minimum

MECHANICAL

Operating Temperature	-85°F to +302°F (-65°C to +150°C) aluminium -85°F to +392°F (-65°C to +200°C) stainless steel
Sealing	1 meter for 1 hour (2M803 splashproof)

Insulation Strip Length

CONTACT SIZE	STRIP LENGTH
23	0.150 (3.81)
20	0.188 (2.54)
20HD	0.150 (3.81)
16	0.188 (2.54)
12	0.188 (2.54)

Mating Life	2000 cycles; 2M803 aluminum 250 cycles
Salt Spray	Plating C & M: 48-hours Plating MT, NF, ZM, ZN, ZNU, UCR: 500-hours
Fungus	Fungus resistant insert
Random Vibration	2M801 & 2M805: 43.9g ; 2M803 & 2M804: 37g
Gunfire Vibration	No discontinuity greater than 1 microseconds; no cracking, breaking or loosening of parts, plug shall not disengage from receptacle. Connectors meet electrical requirements after vibration test.
Shock	300 G, half-sine, 3ms, 3 axes
EMI-Shielding Effectiveness	55 dB min from 100 MHz to 1000 MHz
Contact Type	Crimp, solder or printed circuit
Number of Contacts	1 to 130

Contact Retention

CONTACT SIZE	MIN. POUNDS	MIN. NEWTONS
23	10	45
20	15	67
20HD	10	45
16	25	111
12	25	111

Contact Separation Force

CONTACT SIZE	MIN. OUNCES	MIN. NEWTONS
23	0.5	0.14
20	0.7	0.19
20HD	0.7	0.19
16	2.0	0.56
12	3.0	0.83

Coupling Torque

SHELL SIZE		INCH / POUNDS
2M801	2M805	
5, 6, 7	8,9	8
8, 9	10, 11	9
10	12	12
12, 13	15	16
14, 15	18	28
16, 17	19	24
21	-	32
-	23	36

Polarization	Dual-Start ACME Thread coupling, 3 keyways with optional keyway rotations, note insert remained fixed.
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