

MIL-DTL-38999 Series I Type Contact materials and performance specifications

MIL-DTL-38999 CONTACT MATERIALS		
Component	Material	Notes
Pin Contact	Beryllium copper alloy per ASTM B197, 50 microinches gold plated per ASTM B488 Type 3 Code C Class 1,27 over nickel plate per QQ-N-290 Class 2, 50-100 microinches.	Approved for Space Flight
Pin Contact, Hermetic	Nickel-iron alloy per ASTM F30 (Alloy 52), 50 microinches gold plated per ASTM B488 Type 3 Code C Class 1,27 over nickel plate per QQ-N-290 Class 2, 50-100 microinches.	Ferromagnetic material.
Socket Contact	Beryllium copper alloy per ASTM B197, 50 microinches gold plated per ASTM B488 Type 3 Code C Class 1,27 over nickel plate per QQ-N-290 Class 2, 50-100 microinches.	Approved for Space Flight
Socket Contact Hood	Stainless steel, passivated per AMS-QQ-P-35.	Approved for Space Flight

REQUIREMENT	CONTACT PERFORMANCE SPECIFICATIONS			
Current Rating	(Per SAE-AS39029, Paragraph 3.5.4)	Contact Size	Maximum Amps	
			Crimp	Hermetic
		23-22	5	3
		22D	5	3
		20	7.5	5
		16	13	10
		12	23	17
		10	33	24
Contact Resistance, Type A	(Per SAE-AS39029, Paragraph 3.5.4.1) The contact voltage drop of each mated copper alloy contact pair shall not exceed the applicable values specified.	Wire Size	Test Current Amperes	Maximum Voltage Drop (Millivolts) at 25°C ±3°C
		10	33	33
		12	23	42
		16	13	49
		20	7.5	55
		22	22	73
		Contact Resistance, Type B	(Per SAE-AS39029, Paragraph 3.5.4.2) The contact voltage drop of each ferrous alloy contact with its applicable mating copper alloy contact shall not exceed the applicable values specified.	Wire Size
10	23			363
12	17			462
16	10			539
20	55			605
22	3			803