



**M39029/83
850-004
Standard Duty Electrical Pin Contact**

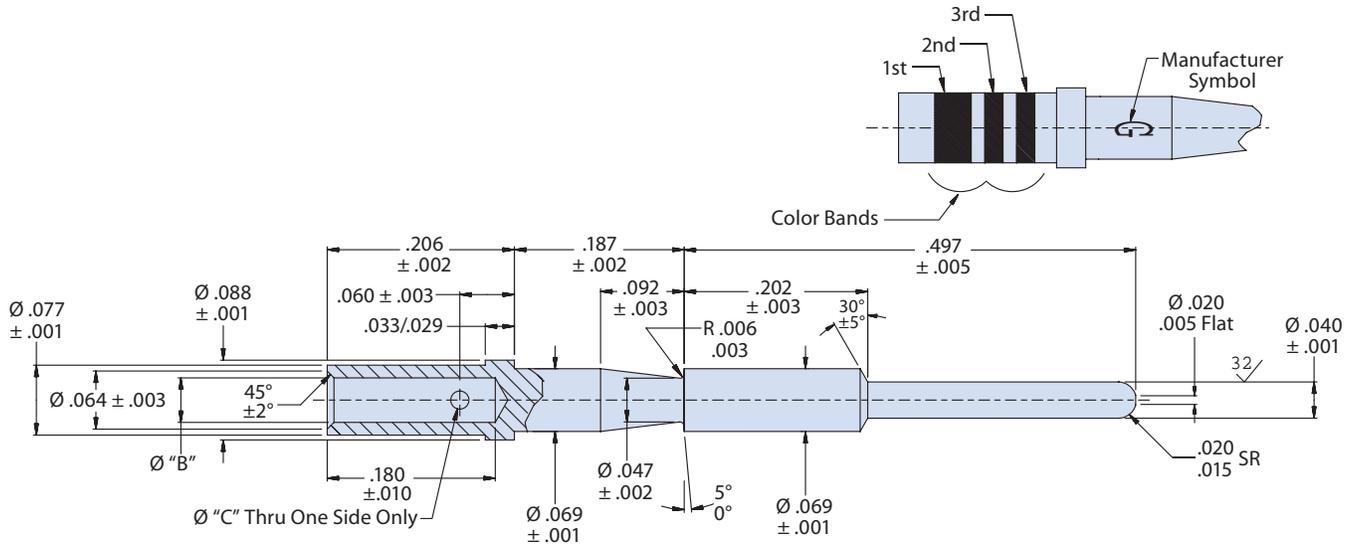
M28840

Standard Pin Crimp Contact for MIL-DTL-28840 Connectors



Mating End Size	Wire Accomodation	Military Part Number	Glenair Part Number
20	28-32 AWG	M39029/83-451	850-004-20-451
20	22-26 AWG	M39029/83-450	850-004-20-450
20	20-24 AWG	M39029/83-508	850-004-20-508

D



Material and Finish

Pin Contact: copper alloy per ASTM B197, 50 microinches gold plated per ASTM B488 Type II Code C Class 1,27 over nickel plate per QQ-N-290 Class 2, 50-100 microinches. Approved for space flight.

Dimensions in Inches (millimeters) are subject to change without notice.

**M39029/83
850-004
Standard Duty Electrical Pin Contact**



MIL-DTL-28840
Introduction

Table I: Contact Dimensions

Size	Part Number	Military Number	Ø B	Ø C	Color Bands		
					1st	2nd	3rd
20	850-004-20-508	M39029/83-508	.050	.032	Green	Black	Grey
			.048	.026			
20	850-004-20-450	M39029/83-450	.0355	.032	Yellow	Green	Black
			.0335	.026			
20	850-004-20-451	M39029/83-451	.0200	.022	Yellow	Green	Brown
			.0180	.018			

Table II: Tool Compatibility

Size	Part Number	Military Number	AWG Handling	Crimp Tool	Positioner	Insertion Tool	Extraction Tool
20	850-004-20-508	M39029/83-508	20, 22, 24	M22520/34-01	M22520/34-02	M81969/33-01	M81969/34-01
20	850-004-20-450	M39029/83-450	22, 24, 26	M22520/34-01	M22520/34-02	M81969/33-01	M81969/34-01
20	850-004-20-451	M39029/83-451	28, 30, 32	M22520/34-01	M22520/34-02	M81969/33-01	M81696/34-01

D

Test Performance Specifications

Durability	(meets SAE-AS39029, paragraph 3.5.9) No electrical or mechanical defects after 500 cycles of engagement and disengagement
Contact Retention	(meets MIL-DTL-38999, paragraph 3.23) The axial displacement of the contact shall not exceed .012 inch (0.30 mm). No damage to contacts or inserts shall result.
Pin Engagement End	(meets SAE-AS39029 paragraph 3.4.1) Unless otherwise specified, the mating end of all contacts (except size 22 and smaller) shall be formed with an approximate spherical radius.
Permeability	(meets SAE-AS39029, paragraph 3.5.1) When tested as specified in paragraph 4.7.2, the relative magnetic permeability of the contact shall be no greater than 2.0.
Vibration	(meets SAE-AS39029, paragraph 3.5.10) When contacts are tested as specified in paragraph 4.7.11, there shall be no electrical discontinuity of 1 microsecond or greater. There shall be no defects detrimental to the mechanical or electrical performance.
Salt Spray (corrosion)	(meets SAE-AS39029, paragraph 3.5.12) When tested as specified in 4.7.13, mated contacts shall withstand 48 hours of salt spray conditioning without defects detrimental to the mechanical or electrical performance.
Temperature life	(meets SAE-AS39029, paragraph 3.5.13) When tested as specified in paragraph 4.7.14, mated contacts shall withstand temperature conditioning for 1,000 hours without defects detrimental to mechanical or electrical performance. There shall be no diffusion/migration of the base metal through the contact outer plating. Class A - Maximum operating temperature +125°C. per paragraph 1.2.2
Dielectric withstanding voltage	(meets SAE-AS39029, paragraph 3.5.19) When tested as specified in paragraph 4.7.20, crimped contacts shall show no evidence of breakdown or flashover.
Workmanship	(meets SAE-AS39029, paragraph 3.7) Contacts shall be processed in such a manner as to be uniform in quality and shall be free from foreign material and burrs or sharp corners that might damage the connector or affect mating of the contacts. Burrs and sharp edges shall be removed 0.005 inch maximum.

Dimensions in Inches (millimeters) are subject to change without notice.