

# 2M805 Tri-Start Threaded Coupling

## General Information

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## Amphenol's 2M Micro38999 Connector Series... The New Aerospace Standard

Averaging less than half the size and weight of their 38999 ancestors, Amphenol's 2M Micro38999 series are an easy and inexpensive way to take weight out of your system. 2M meet or exceed most environmental and performance requirements listed in MIL-DTL-38999, so modernizing your equipment doesn't mean sacrificing ruggedness. With almost 2,000,000 configurations in every termination style and a full complement of accessories available right out of the catalog, customization has never been easier. Smarter, faster and smaller: Amphenol's 2M... the only connector you'll ever need.

### 2M805 Features

- Tri-start fast coupling
- Excellent EMI shielding
- Superior vibration resistance
- Waterproof
- Nickel plated ground spring



### Why 2M805?

2M805 connectors are the evolution of the mil-standard circular. Designed to meet the same harsh environmental requirements of D38999, they were developed to make scaling-down existing technology easy and risk-free. Your systems are getting smaller, lighter, and faster; so why wouldn't your interconnect do the same? Less than half the size and weight of their 38999 predecessors, you can reduce size, reduce space, and reduce cost... but never reduce your expectations.

#### 2M805 VS 38999

Specification	2M805	MIL-DTL 38999 Series III
Signal Count	1 to 130	1 to 187
Insulation Resistance	5,000 megaohms min	5,000 megaohms min
Operating Temperature	-65°C to +150°C	-65°C to +175°C
Shock	300 G ± 15	300 G ± 15
Vibration	"43.9 G Random 60.0 G Sine"	"43.9 G Random 60.0 G Sine"
Shielding Effectiveness	"85 dB min. from 100 MHz to 1000 MHz"	"65 dB min. from 100 MHz to 1000 MHz"
Durability	500 mating cycles min.	500 mating cycles
Shell to Shell Conductivity	2.5 mV drop max	2.5 mV drop max
Contacts	Per AS39029	Per AS39029
Environmental Resistance	IP67 (When Mated or with a Protection Cap)	IP67 (When Mated or with a Protection Cap)

#### 2M805 MATERIALS AND FINISHES

Shells	Aluminum Alloy or Stainless Steel
Contacts	Copper Alloy, gold plated
Insulators	Polyphenylene Sulfide (PPS)
Contact Retention	Beryllium Copper Alloy
Grommet, Interfacial Seal, O-Ring	Fluorosilicone Rubber



# 2M805 Tri-Start Threaded Coupling

## Ordering Guide for 2M805 Plugs & Receptacles



1. SERIES	2. SHELL STYLE	3. SERVICE CLASS	4. SHELL SIZE INSERT ARRANGEMENT	5. CONTACTS	6. KEYING	7. SUFFIX
2M805-003	-01	ZNU	5-3	P	A	

1. SERIES			2. SHELL STYLE		3. SERVICE CLASS				
Type	Part #	Description	Part #	Description	Material	Part #	Description	RoHS	
CRIMP	<b>PLUG</b>		<b>PLUG</b>		ALUMINUM	<b>C</b>	Anodized (Non-conductive)		
	2M805-001	Plug with Integral Backshell	-16	Self-Locking Plug with Ratchet mechanism		<b>M</b>	Electroless Nickel		
	2M805-002	Plug with Accessory Threads		<b>NF</b>		Olive Drab Cadmium			
	<b>RECEPTACLE</b>		<b>RECEPTACLE</b>			<b>MT</b>	Durmalon (Ni PTFE)		
	2M805-003	Receptacle with Integral Backshell	-01	In-Line Receptacle		<b>ZN</b>	Olive Drab Zinc Nickel		
2M805-004	Receptacle with Accessory Threads	-02	Square Flange Receptacle	<b>ZNU</b>		Black Zinc Nickel			
PCB/ SOLDER	<b>STRAIGHT PCB/SOLDER</b>		<b>STRAIGHT PCB/SOLDER</b>			STAINLESS STEEL	<b>BEN</b>	Black Electroless Nickel	
	2M805-005	Receptacle w/ Epoxy Potting	-02	Square Flange Receptacle			<b>Z1</b>	Passivated	
	2M805-017	Receptacle for Open Face Immersion	-07	Jam Nut* Receptacle			<b>ZM</b>	Electroless Nickel	
	2M805-067	Receptacle with Standoff Flange for Mechanical PCB Strain Relief		<b>RIGHT ANGLE PCB</b>			<b>RIGHT ANGLE</b>		
	2M805-011	Receptacle w/ Right Angle PCB	-07	Jam Nut* Receptacle					

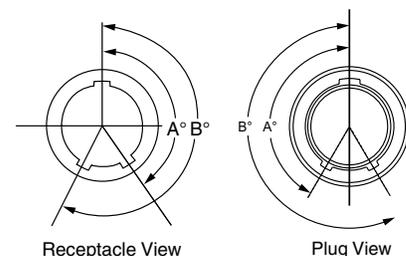
\*add "-501" as a suffix to the Jam Nut Part number to include a Hex Nut instead of a Spanner Nut.



4. SHELL SIZE-INSERT ARRANGEMENT
See Table on pages 7-20

5. CONTACTS		
Style	Part #	Description
CRIMP	<b>P</b>	Pin
	<b>S</b>	Socket
	<b>A</b>	Pin-Less Contacts
	<b>B</b>	Socket-Less Contacts
<b>STRAIGHT/RIGHT ANGLE</b>		
PCB/ SOLDER	<b>P</b>	Pin-PCB
	<b>S</b>	Socket-PCB
	<b>E</b>	Pin-Solder Cup
	<b>F</b>	Socket-Solder Cup

6. KEYING		
Part #	A°	B°
<b>A</b>	150°	210°
<b>B</b>	75°	210°
<b>C</b>	95°	230°
<b>D</b>	140°	275°



For additional assistance building a part number and for 3D models, please visit [www.amphenol-aerospace.com](http://www.amphenol-aerospace.com) to access our 2M configurator.