



## Amphenol's Ram-Lock Push-Pull interface is now available in the 2M family of products!

Featuring a positive locking interface, the Ram-Lock is perfect for applications where accidental unmating is a concern. The user must pull on the operating sleeve of the plug to unmate rather than pulling on the cable. Utilizing ball bearings for locking and a traditional D38999 EMI band for shell-to-shell conductivity allows for much more consistent and reliable engagement between the plug and receptacle.

### 2MRAM Features

- Push-pull with positive lock
- Visual, tactile, and audible full-mate indication
- Prevents accidental unmating when cable is pulled
- Full environmental sealing and EMI protection
- Lower mate/unmate forces compared to 2M804



2M804

### Applications:

- Soldier worn equipment
- Electric vehicle recharging
- Battery terminal connections
- In-line power and signal connections

### Important Note:

Plug and receptacle terminology is reversed compared to 2M804. This is because the user pulls on the operating sleeve to disengage rather than the cable. For example, 2M804-003 is known as a "receptacle", 2M RAM-003 is a "plug."

#### 2MRAM VS 38999

Specification	2MRAM	MIL-DTL 38999 Series III
Signal Count	1 to 85	1 to 187
Insulation Resistance	5,000 megaohms min	5,000 megaohms min
Operating Temperature	-65°C to +175°C	-65°C to +175°C
Shock	300 G ± 15	300 G ± 15
Vibration	"37.0 G Random 30.0 G Sine"	"43.9 G Random 60.0 G Sine"
Shielding Effectiveness	"40 dB min. from 100 MHz to 1000 MHz"	"65 dB min. from 100 MHz to 1000 MHz"
Durability	1,000 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

#### 2MRAM 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
Ball Bearing	Stainless Steel
Wave Springs	Stainless Steel
EMI Band, Nickel Plated	Beryllium Copper Alloy



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# 2M Ram-Lock Push-Pull Crimp Connectors

## Ordering Guide for 2MRAM-001, 002, 003, 004



### HOW TO ORDER

Complete steps 1-7 to create your part number (ex: 2MRAM-06ZNU6-7PA)

1. Series	2. Shell Type	3. Service Class	4. Shell Size - Insert Arrangement	5. Contact Type	6. Contact Type	7. Suffix
2MRAM-00X	-06	ZNU	6-7	P	A	

1. SERIES		
	Part #	Description
Crimp	<b>CABLE MOUNTED PLUG</b>	
	2MRAM-001	Plug with Integral Backshell
	2MRAM-002	Plug with Accessory Threads
	<b>RECEPTACLE</b>	
	2MRAM-003	Receptacle with Banding Platform
	2MRAM-004	Receptacle with Accessory Threads
PCB / Solder	<b>PCB/SOLDER CABLE MOUNTED PLUG</b>	
	2MRAM-005	Plug with Epoxy Potting
	<b>PCB/SOLDER RECEPTACLES</b>	
	2MRAM-009	Receptacle with Solder Cup or PCB termination with Standard Epoxy Potting
	2MRAM-021	Receptacles with Solder Cup or PCB Termination with Special Sealing or Open Face (unmated) Water Immersion Requirements. 100% Leak Tested to maintain a helium leak rate of 1x10 <sup>-4</sup> cc/sec pressure differential from -65°C to 175°C.

2. SHELL TYPE	
<b>CABLE MOUNTED PLUG</b>	
-06	In-Line Plug
<b>RECEPTACLE</b>	
-00	Jam Nut for front panel
-01	In-Line
-02	Square Flange
-07	Jam Nut for rear panel
<b>PCB/SOLDER RECEPTACLE</b>	
-06	In-Line plug
<b>PCB/SOLDER CABLE MOUNTED PLUG</b>	
-00	Jam Nut for front panel
-02	Square Flange
-07	Jam Nut for rear panel

3. SERVICE CLASS			ROHS
Aluminum	C	Anodized (Non-Conductive)	Yes
	M	Electroless Nickel	Yes
	NF	Olive Drab Cadmium	
	MT	Durmalon (Ni PTFE)	Yes
	ZN	Olive Drab Zinc Nickel	Yes
	ZNU	Black Zinc Nickel	Yes
Stainless Steel	BEN	Black Electroless Nickel	Yes
	Z1	Passivated	Yes
	ZL	Electrolytic Nickel	Yes

**4. SHELL SIZE - INSERT ARRANGEMENT**  
See table on pages 7-20 of 2M catalog

5. CONTACT TYPE		
CRIMP	P	Pin
	S	Socket
	A	Pin-less contacts
	B	Socket-Less Contacts
PCB/Solder	P	Pin-PCB
	S	Socket-PCB
	F	Socket-Solder Cup

6. CONTACT TERMINATION		
Part #	A°	B°
A	150°	210°
B	75°	210°
C	95°	230°
D	140°	275°

**Visual Representation**

Cable Mounted Plug	In-Line Receptable	Square Flange Receptacle

2M804

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