

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 protectio
- 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



2M Ram-Lock Push-Pull Crimp Connectors

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



1. SERIES	2. SHELL STYLE	3. SERVICE CLASS	4. SHELL SIZE-INSERT ARRANGEMENT	5. CONTACTS	6. KEYING	7. SUFFIX
2MRAM-00X	-06	ZNU	6-7	P	A	

1. SERIES

Type	Part #	Description
CRIMP	RECEPTACLE	
	2MRAM-001	Receptacle with Integral Backshell
	2MRAM-002	Receptacle with Accessory Threads
	PLUG	
	2MRAM-003	Plug with Banding Platform
2MRAM-004	Plug with Accessory Threads	

PCB/SOLDER PLUGS

2MRAM-005	Plug w/ Epoxy Potting
2MRAM-020	Plug for Open Face Immersion
2MRAM-025	Plug with Standoff Flange for Mechanical PCB Strain Relief

PCB/SOLDER RECEPTACLES

2MRAM-009	Receptacles with Solder Cup or PCB Termination with Standard Epoxy Potting
2MRAM-021	Receptacles with Solder Cup or PCB Termination with Special Sealing for Open Face (unmated) Water Immersion Requirements. 100% Leak Tested. To maintain a helium leak rate of 1×10^{-4} cc/sec. pressure differential from -65°C to 175°C.

2. SHELL STYLE

Part #	Description
RECEPTACLE	
-06	Receptacle
RECEPTACLE	
-00	Jam Nut* for Front Panel
-01	In-Line
-07	Jam Nut* for Rear Panel

PCB/SOLDER PLUGS

-00	Jam Nut* for Front Panel Mounting
-07	Jam Nut* Rear Panel Mounting

PCB/SOLDER RECEPTACLES

-00	Jam Nut for Front Panel mounting
-07	Jam Nut for Rear Panel Mounting
-02	Flange Mount, Rear Panel

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

5. CONTACTS

Style	Part #	Description
CRIMP	P	Pin
	S	Socket
	A	Pin-Less Contacts
	B	Socket-Less Contacts

PCB/SOLDER

P	Pin-PCB
S	Socket-PCB
E	Pin-Solder Cup
F	Socket-Solder Cup

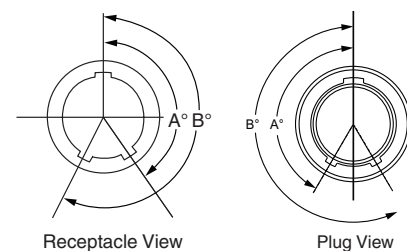
3. SERVICE CLASS

Material	Part #	Description	RoHS
ALUMINUM	C	Anodized (Non-conductive)	
	M	Electroless Nickel	
	NF	Olive Drab Cadmium	
	MT	Durmalon (Ni PTFE)	
	ZN	Olive Drab Zinc Nickel	
	ZNU	Black Zinc Nickel	
	BEN	Black Electroless Nickel	
	STAINLESS STEEL	Z1	Passivated
ZL		Electrolytic Nickel	

6. KEYING*

Part #	A°	B°
A	150°	210°
B	75°	210°
C	95°	230°
D	140°	275°

*For single master key omit (leave blank)



4. SHELL SIZE-INSERT ARRANGEMENT

See Table on pages 7-20

2M804

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