

MMA



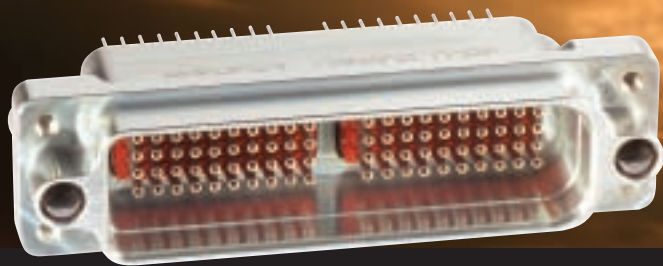
Blind Mate

Low force contacts

Arinc 600 insert design

Snap-in inserts

Filtered option



Amphenol

FILTERED AND RECTANGULAR CONNECTORS

The MMA series is the ultimate solution to fit your needs.

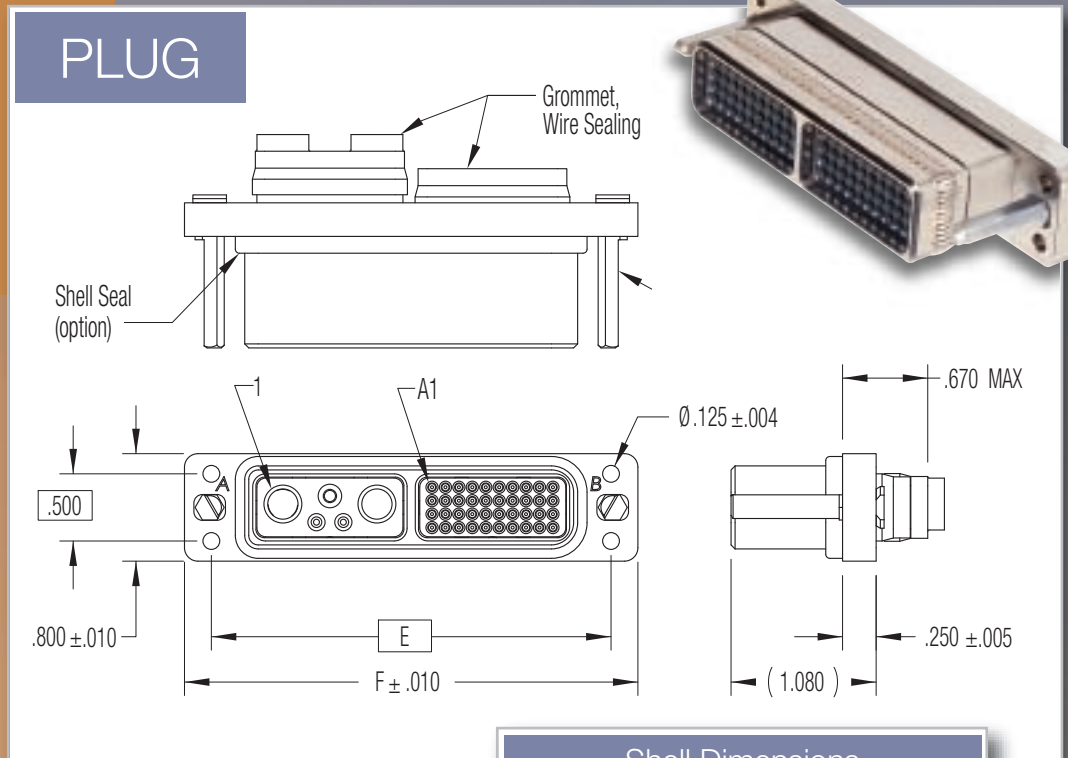
Mini – Compact blind mate
Modular - Infinite possibilities
Arinc Contacts - Proven Design

MMA combines many of the best features from popular product lines including Arinc 600's power, RF, Fiber Optic and Quadrax contacts, low mating forces and shrouded size 22 pins. Sealing capabilities are comparable to M83527 with a shell seal, face seal and grommet. Modular, removable inserts are effective for separating signal and power contacts, while providing ease of installation and customization in the field. Choose our 360° EMI spring option if shielding effectiveness is a concern. Customer specific designs lead to endless possibilities!

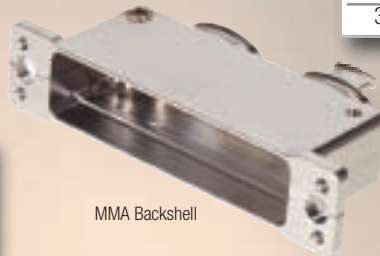
Performance Characteristics	
Description	Rating
Dielectric Withstanding Voltage, Sea level	1500 Vac
Insulation Resistance	5 GΩ min at 500 Vdc
Current Ratings	Size 22: 5 A Size 20: 7.5A Size 16: 13 A Size 12: 23 A
Shielding Effectiveness (EMI spring interface)	60 dB Min at 1000 MHz
Durability	500 cycles
Temperature Range	-65°C / +125°C
Temperature Life	1000 hrs, 125°C
Moisture Resistance	10 days, cycling
Shock	50 G, 3x both directions of each axis (Condition A)
Vibration	Random, 16.4 Grms, 8 hrs each axis (Condition V, letter E)
Fluid Exposure	Hydraulic fluid, MIL PRF 5606 Lubricating Oil, MIL PRF 23699 IPA/ Mineral Spirits Jet Fuel A, ASTM D1655
Salt Spray	48 hours (E Nickel) 96 hours (Chem Film) 500 hours (Nickel Fluorocarbon Polymer)

Test methods are as described in Arinc 600.
 Ask us about material requirements such as CTI, Flammability, Smoke and Toxicity.

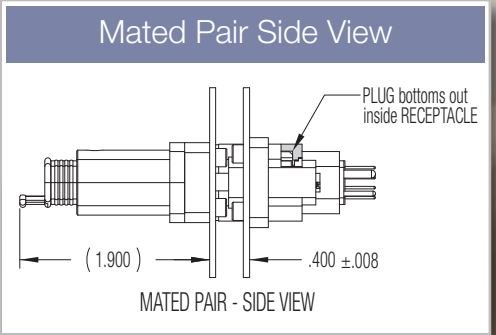
www.amphenolcanada.com



Shell Dimensions				
Shell Size	Cavity A Insert Code	Cavity B Insert Code	Dim E	Dim F
1	A thru N	A thru N	2.975	3.375
2	A thru N	P thru Z	3.415	3.815
3	P thru Z	P thru Z	3.855	4.255



MMA Backshell

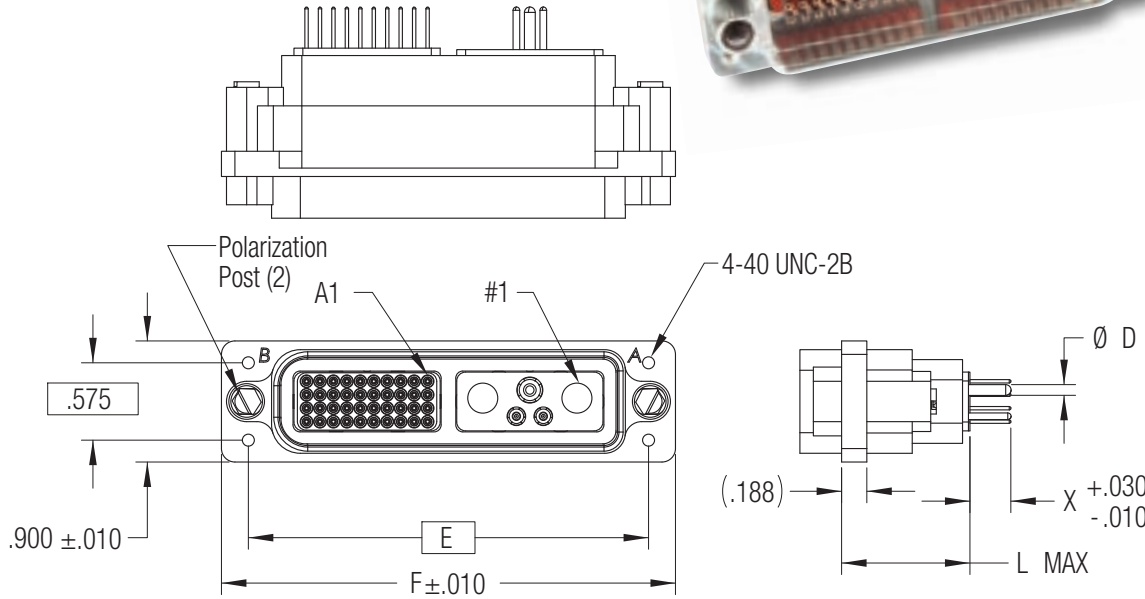
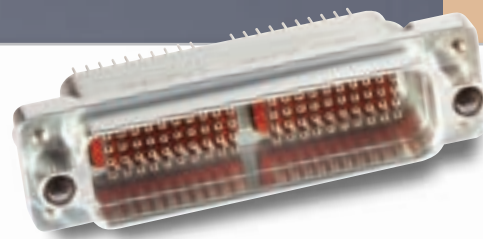


Materials		
Description	Material	Finish*
Shell & Backshell	Aluminum Alloy or Composite	Electroless Nickel or Chem Film, Mil-C-5541, Class 3 or Nickel Fluorocarbon Polymer
Hardware & Polarizing Keys	Stainless Steel or Copper Alloy	Passivated or Nickel Plated
Inserts	Thermoset or Thermoplastic	---
	Aluminum Alloy	same as shell
Grommets/ Face Seal	Fluorosilicone Elastomer	---
EMI Spring (option)	Copper Alloy	Nickel Plated
Shell Seal (option)	Fluorosilicone Elastomer	---
Contacts	Copper Alloy	Gold over Nickel

* other platings upon request

MMA

RECEPTACLE



Termination Styles

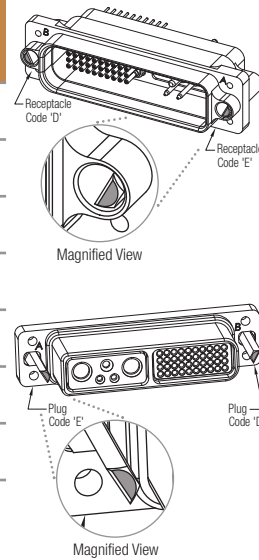
Termination	Dim 'L'	Dim 'X'
1 or 2	1.280 Max (Grommet)	n/a
3	0.990 Max	0.150
4		0.250
5		0.375

PCB Tail Ø

Contact	Ø D ± .002
22	0.025
20	0.032
16	0.050
12	0.081

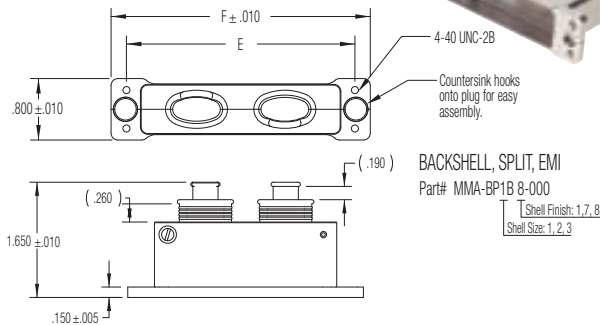
Polarization Codes

Polarization Code Letter	Receptacle Mating Face	Plug Mating Face
A		
B		
C		
D		
E		
F		
K	Not installed, supplied as kit	
N	Polarized Posts not supplied	



Dark zone represents top of polarizing post.

BACKSHELL



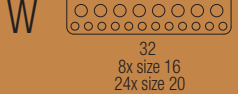
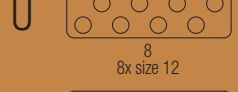
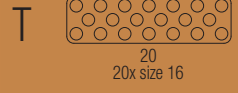
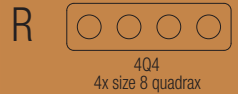
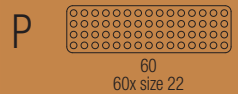
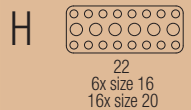
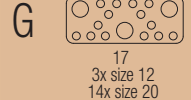
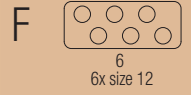
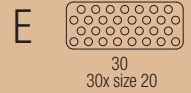
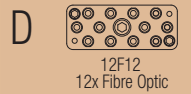
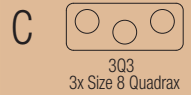
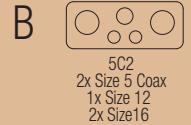
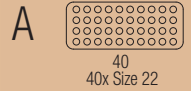
BACKSHELL, SPLIT, EMI
Part# MMA-BP1B 8-000
Shell Finish: 1, 2, 3
Shell Size: 1, 2, 3

Contacts

	Receptacle		Plug		Type	Part #	Installation/Removal Tool	Crimp Tool	Positioner	Wire	
	Size	Type	Part #	Type						AWG	Insulation Dia, Max
Crimp	22	Socket	AC-782222 301	Pin	AC 772222 301	M81969/1 01	M22520/2 01	M22520/2 23	22, 24, 26	0.052	
	20		AC 772020 302		AC 782020 302	M81969/1 02	M22520/2 01	M22520/2 08	20, 22, 24	0.060	
	16	Pin	AC 771616 303	Socket	AC 781616 303	M81969/1 03	M22520/1 01	M22520/1 02	16, 18, 20	0.080	
	12		AC 771212 304		AC 781212 304	M81969/28 02	M22520/1 01	M22520/1 11	12, 14	0.114	
Fibre Optic	Amphenol manufactures fiber optic contacts for MMA, including Arinc 801. Contact us for drawings and performance data.										
RF	Coax, Twinax, Triax and Quadrx contacts are available in both PCB tail and Crimp termination. Contact us for drawings and performance data, or look for MMA information on our web site.										

PCB terminations are supplied installed in the connector. Selective loading is an option. Contacts conform to Arinc 600 requirements.

Insert Code Insert Pattern



MMA



How To Order

MMA - P 2 XY 2 E 1 AB - 000

MMA Series

P

Shell Style

- P** - Plug, thru hole mount
 - R** - Receptacle, 4-40 tapped mount
 - C** - Plug, 4-40 tapped mount
 - T** - Receptacle, thru hole mount
- Ask us about Composite shells to reduce weight.

2

Shell size

- 1, 2 or 3

XY

Insert Codes

- 1st character for Cavity A, 2nd character for Cavity B
- See Insert patterns for code letters.

2

Termination

- 1** - Crimp style, contacts NOT included
 - 2** - Crimp contacts included
 - 3** - PCB tail, 0.150"
 - 4** - PCB tail, 0.250"
 - 5** - PCB tail, 0.375"
 - 6** - Right Angle PCB
- Fiber Optic and RF contacts are NOT included.

Deviation code

- 000** - Standard connector, no options
- F00** - Fixed inserts
- 001** - EMI spring (plug only)
- 002** - Shell seal
- 004** - EMI spring & shell seal

-000

Polarization Code

- XX** - 1st letter for Cavity A, 2nd for Cavity B. See table inside.
- KK** - Supplied as kit
- NN** - Not included

AB

Shell Finish

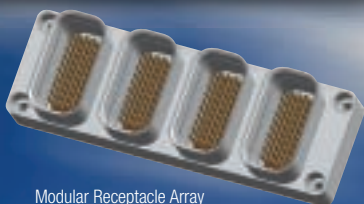
- 1** - Electroless Nickel
 - 7** - Chem Film
 - 8** - Nickel Fluorocarbon Polymer (Durmalon)
- Chem Film Finish (7) should not be combined with EMI springs.

1

Sealing Options

- E** - Environmental inserts with grommet/face seal
- N** - No grommet, no face seal

E



Modular Receptacle Array



Size 2 Receptacle



O-Ring Flange



Amphenol

FILTERED AND RECTANGULAR CONNECTORS

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