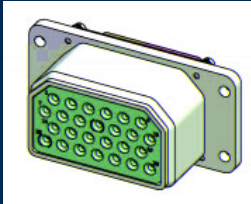


How to Order:
Page 3

	2.	3.	6.				
RoHS Compliance	Connector Series		Designator	Modifier		Modification (Contact, Finish, Material)	
	AR	A		3			



A

A

[3.18 ± 0.20]
.125 ± .008

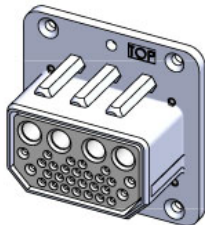
Dimensions for reference only.

Single Bay Dimensional Drawings

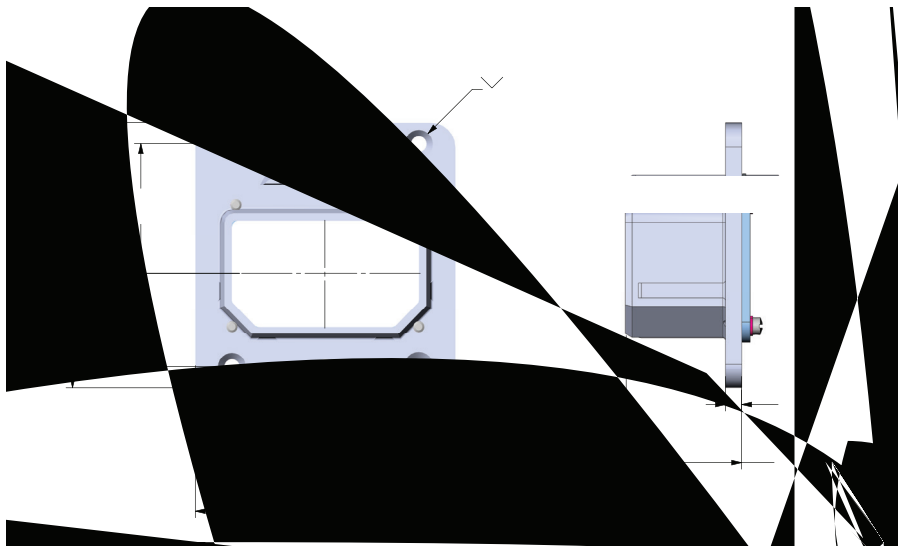
Shell Style: B, Polarized

How to Order:
Page 3

	2.	3.			6.			
RoHS Compliance	Connector Series	Shell Style	Class	Insert Layout Designator	Shell Type	Connector Mounting Modifier	Polarizing Position	Modification (Contact, Finish, Material)
	AR	B			3			



B



SHELL STYLE:
SINGLE BXX POLARIZED

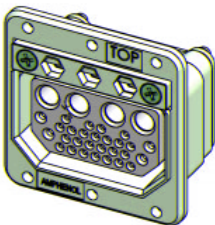
SHELL TYPE: (3)
PLUG

[3.05]
Ø.120
(2 PLCS)

[3.05]
Ø.120 THRU
[5.84]
Ø.230 x 82°
(4 PLCS)

How to Order:
Page 2

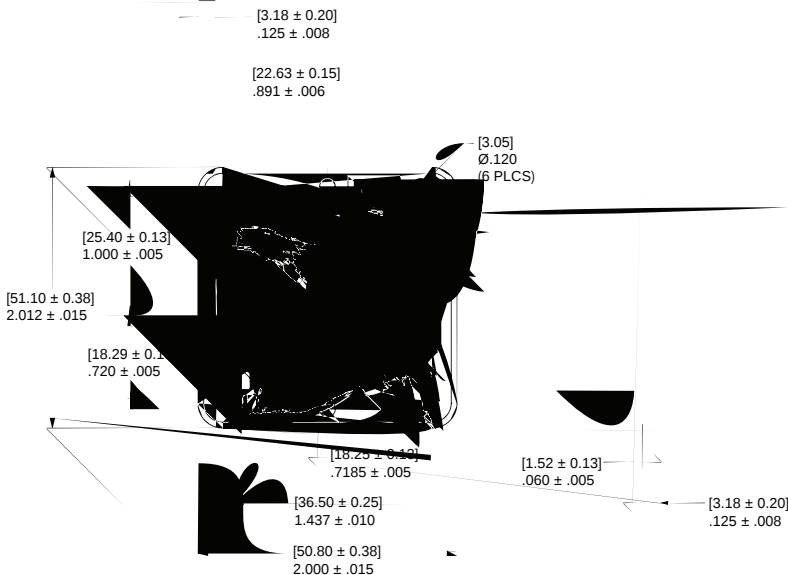
	2.	3.			6.			
RoHS Compliance	Connector Series	Shell Style	Class	Insert Layout Designator	Shell Type	Connector Mounting Modifier	Polarizing Position	Modification (Contact, Finish, Material)
	AR	B			4			



B

SHELL STYLE: (B)
SINGLE BAY POLARIZED

SHELL TYPE: (4)
RECEPTACLE

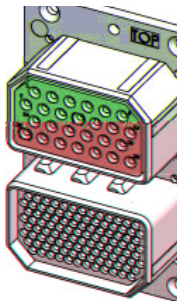


Dimensions are shown in inches, [mm]. All dimensions for reference only.

Double Bay Dimensional Drawings

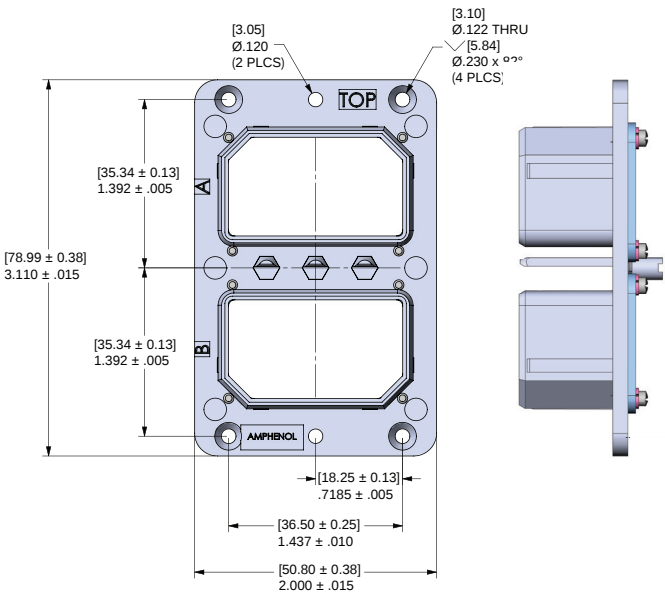
Shell Style: 2, Polarized

How to Order:
Page 3

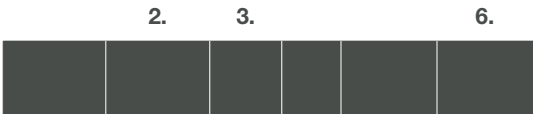


SHELL STYLE: (2)
DOUBLE BAY POLARIZED

SHELL TYPE: (3)
PLUG



How to Order:
Page 3



SHELL STYLE: (2)
DOUBLE BAY POLARIZED

SHELL TYPE: (4)
RECEPTACLE



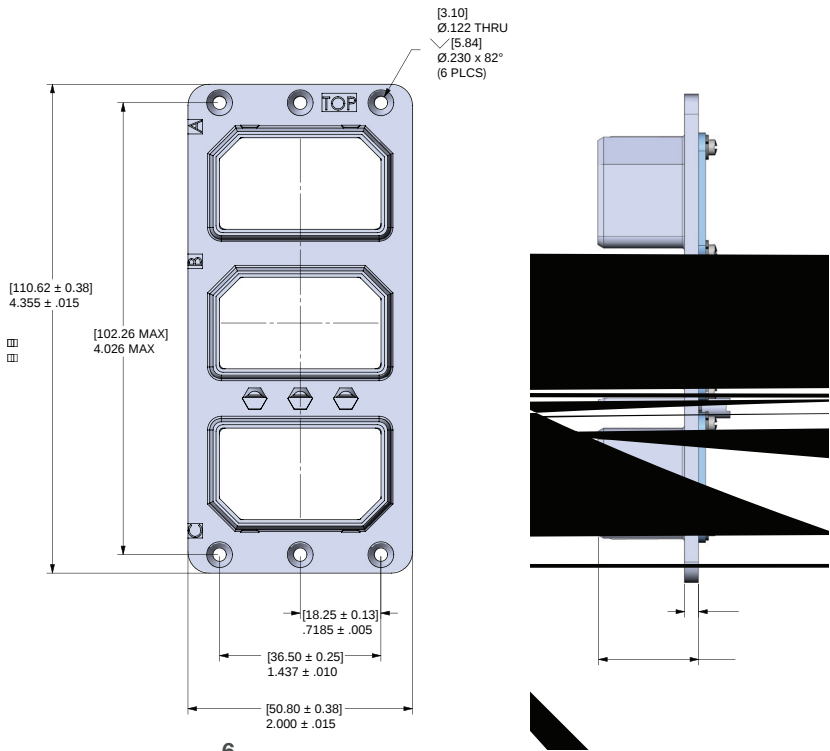
Dimensions are shown in inches, [mm]. All dimensions for this drawing are based on the following:

Triple Bay Dimensional Drawings

Shell Style: 3, Polarized

How to Order:
Page 3

	2.	3.			6.			
RoHS Compliance	Connector Series	Shell Style	Class	Insert Layout Designator	Shell Type	Connector Mounting Modifier	Polarizing Position	Modification (Contact, Finish, Material)
	AR	3			3			



SHELL STYLE: (3)
THREE BAY POLARIZED

SHELL TYPE: (3)
PLUG

How to Order:
Page 3

	2.	3.			6.			
RoHS Compliance	Connector Series	Shell Style	Class	Insert Layout Designator	Shell Type	Connector Mounting Modifier	Polarizing Position	Modification (Contact, Finish, Material)
	AR	3			4			

SHELL STYLE: (3)
THREE BAY POLARIZED

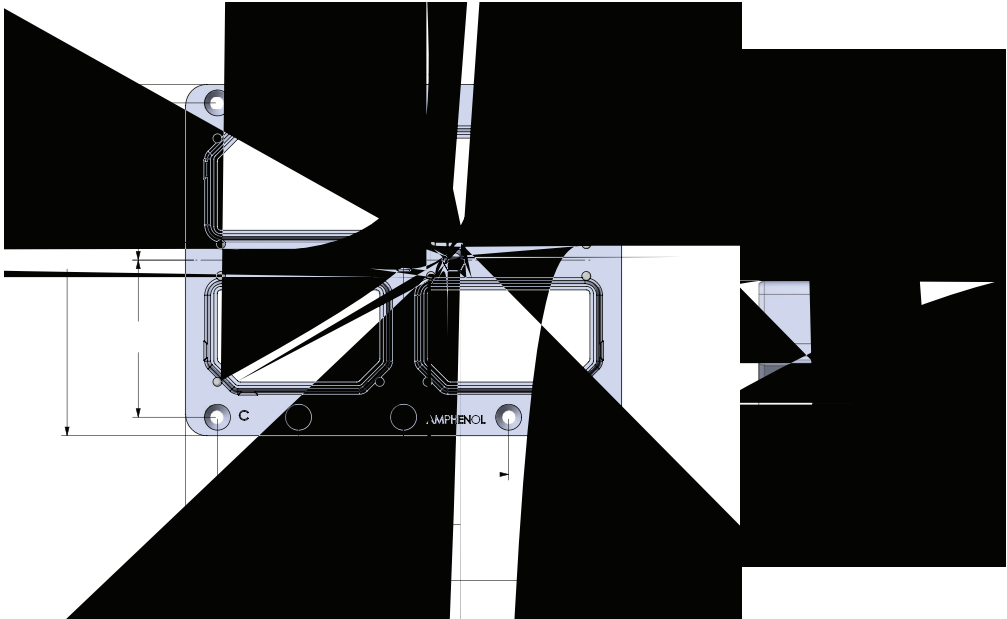
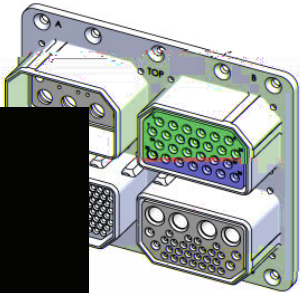
SHELL TYPE: (4)
RECEPTACLE

Dimensions are shown in inches, [mm]. All dimensions for reference only.

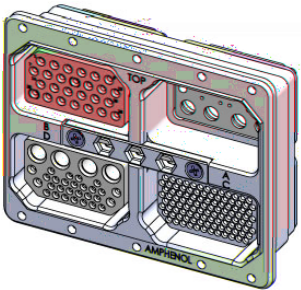
Four Bay Dimensional Drawings

Shell Style: 4, Polarized

	2.	3.			6.			
RoHS Compliance	Connector Series	Shell Style	Class	Insert Layout Designator	Shell Type	Connector Mounting Modifier	Polarizing Position	Modification (Contact, Finish, Material)
	AR	4			3			



	2.	3.			6.			
RoHS Compliance	Connector Series	Shell Style	Class	Insert Layout Designator	Shell Type	Connector Mounting Modifier	Polarizing Position	Modification (Contact, Finish, Material)
	AR	4			4			



[35.34 ± 0.13]
1.3915 ± .005

[78.11 ± 0.38]
3.075 ± .015

[35.34 ± 0.13]
1.3915 ± .005

[23.62 ± 0.13] [23.62 ± 0.13]
.930 ± .005 .930 ± .005

[41.86 ± 0.13] [41.86 ± 0.13]
1.648 ± .005 1.648 ± .005

[98.04 ± 0.38]
3.860 ± .015

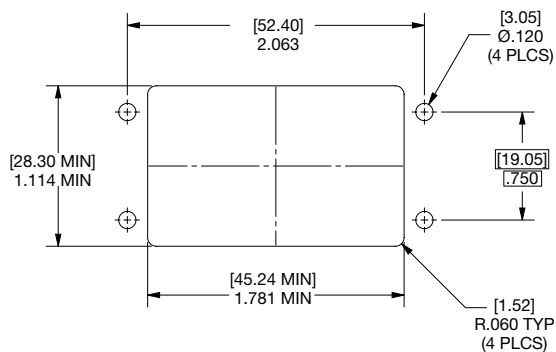
[3.05]
Ø.120
(10 PLCS)

Dimensions are shown in inches, [mm]. All dimensions for reference only.

Panel Cutouts

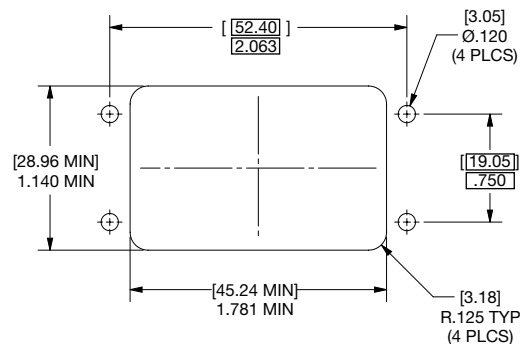
Size A, B, 2

SIZE A: PLUG

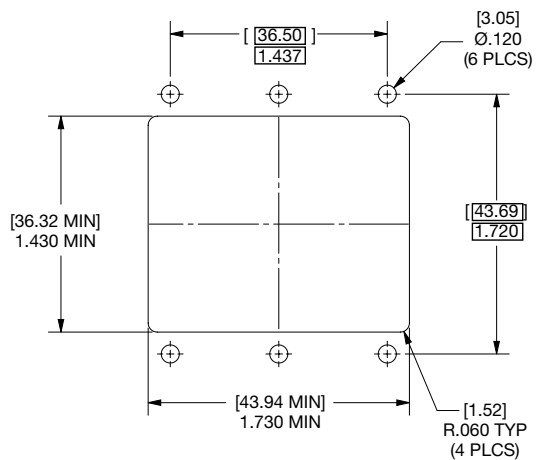


A

SIZE A: RECEPTACLE

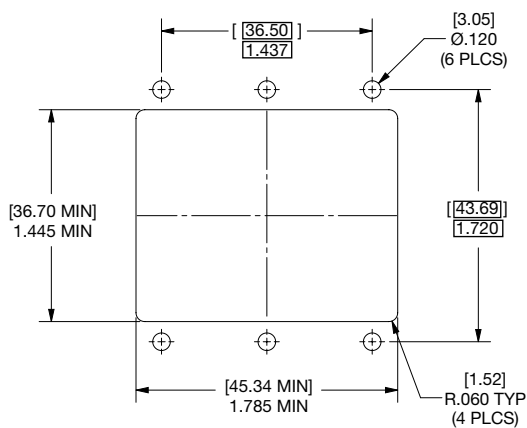


SIZE B: PLUG

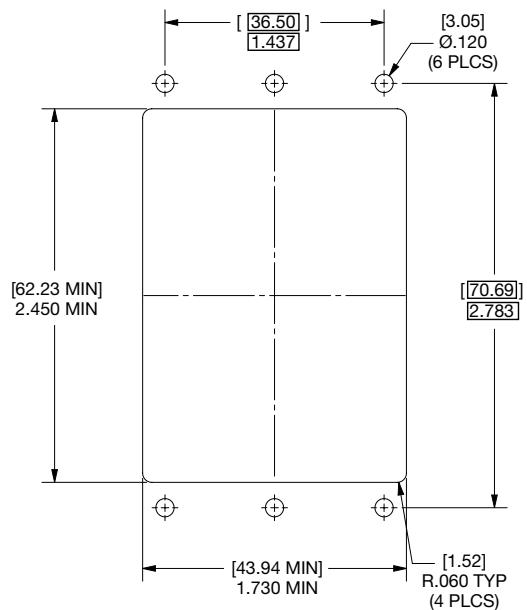


B

SIZE B: RECEPTACLE

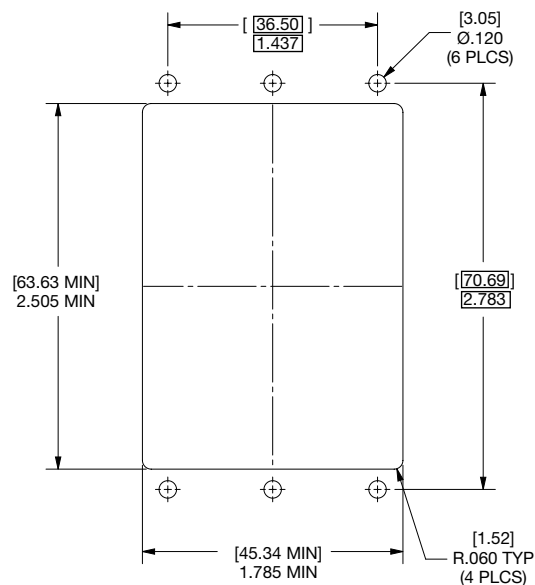


SIZE 2: PLUG



2

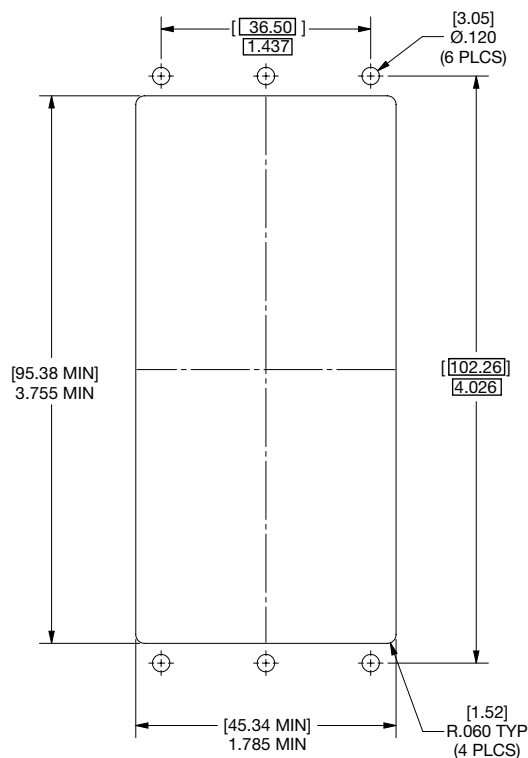
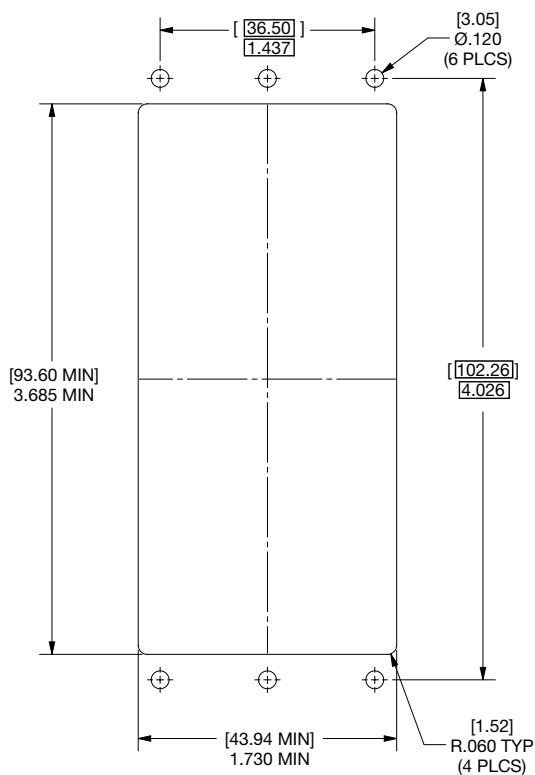
SIZE 2: RECEPTACLE



SIZE 3: PLUG

3

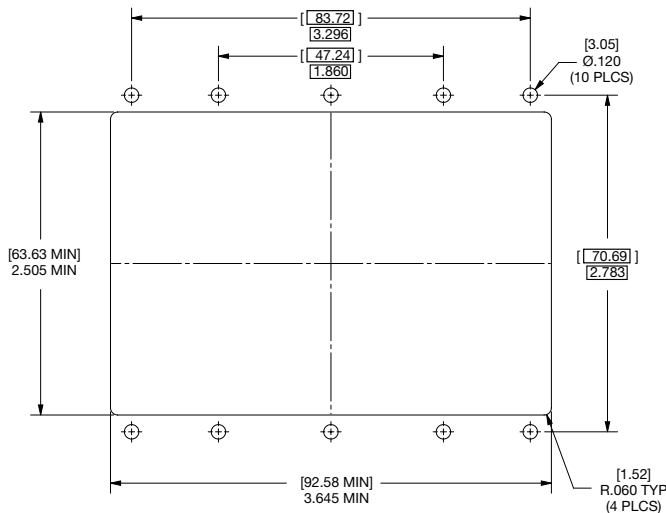
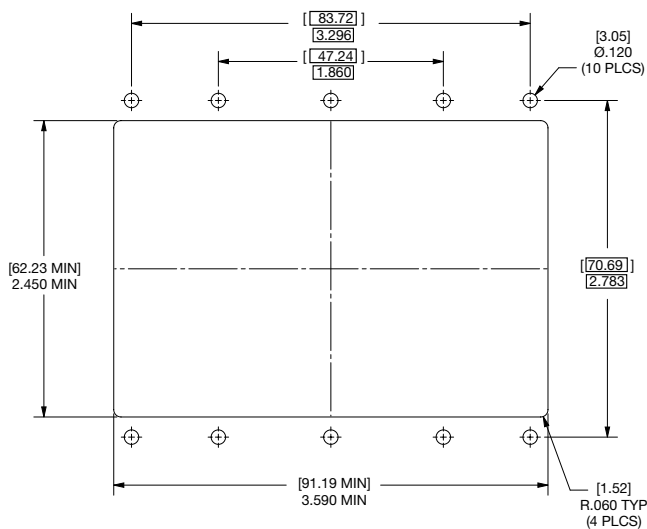
SIZE 3: RECEPTACLE



SIZE 4: PLUG

4

SIZE 4: RECEPTACLE



Contacts Power/Signal, Coax, Dust Covers

Contacts for ARINC 404 Rack and Panel Connectors can be ordered separately. Use the part numbers in the charts below for ordering contacts. When ordering contacts individually, please add a 'BP' suffix to the part number. This is for packaging and shipping reasons only. For further information consult Amphenol Canada Corporation.

CRIMPED
PIN



CRIMPED
SOCKET



ARINC 404 POWER/SIGNAL CONTACTS

CRIMP CONTACT TYPE	SIZE	PIN		SOCKET		INSTALLATION / REMOVAL TOOL	CRIMP TOOL	POSITIONER	AWG
		Military P/N	Amphenol P/N	Military P/N	Amphenol P/N				
SIGNAL	22	M39029/11-144	AC-752222-079	M39029/12-148	AC-762222-079	M81969/1-01	M22520/2-01	M22520/2-23	22, 24, 26
POWER	20	M39029/11-145	AC-752020-081	M39029/12-149	AC-762020-081	M81969/1-02	M22520/2-01 MS-3191-1	M22520/2-08	20, 22, 24
	16	M39029/11-146	AC-751616-076	M39029/12-150	AC-761616-076	M81969/1-03		M22520/1-02	16, 18, 20
	12	M39029/11-147	AC-751212-078	M39029/12-151	AC-761212-078	M81969/14-04	M22520/1-01	M22520/1-11	12, 14

ARINC 404 COAX CONTACTS

Contact Size/Type	Pin	Socket	Layout Usage	Cable Accommodation
	Amphenol Part Number	Amphenol Part Number		
Coax - Size 5	AC-600002-001	AC-600003-001	32C2 (1.4)	RG-59/U, RG-62/U
	AC-600002-002	AC-600003-002	32C2	RG-58/U
	AC-600002-005	AC-600003-005	32C2 40C1	RG-58/U
Coax - Size 9	AC-600002-003	AC-600003-003	C8 32C4	RG-58/U
	AC-600002-003A	AC-600003-003A	C8 32C4	RG-142/U
	AC-600002-004	AC-600003-004	C8 32C4	RG-174/U, RG-179/U, RG-187/U, RG-188/U

ARINC 404 PROTECTIVE DUST COVERS

(Conductive)

Plug	Receptacle
AC-100000-591	AC-100000-601

Dimensions are shown in inches, [mm]. All dimensions for reference only.

"A = Non-Enviro w/
Alignment Boot

N = Non-Enviro
w/o Alignment
Boot
(NO BOOT)

E = Enviro w/
Sealing &
Alignment Boot

T = Enviro for Tight
Spacing
w/ Sealing &
Alignment Boot

B = Enviro for
Sealing to the insert
w/o Grommet
w/ Sealing Boot"

ARINC Backshells How-to-Order

ARINC 404

1.	2.	3.	4.	5.
Connector Series	Backshell	Size	Style	Plating
404	B	2	E	1

1. CONNECTOR SERIES

404	Series
------------	--------

2. BACK SHELL

B	Backshell
----------	-----------

3. SIZE

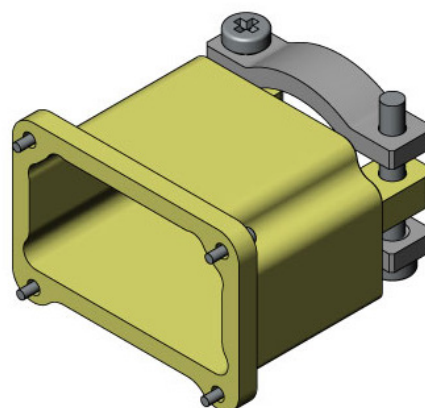
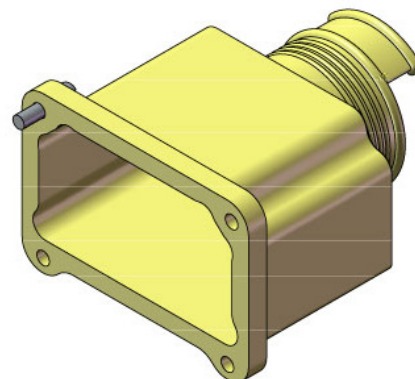
A
1
2
3
4

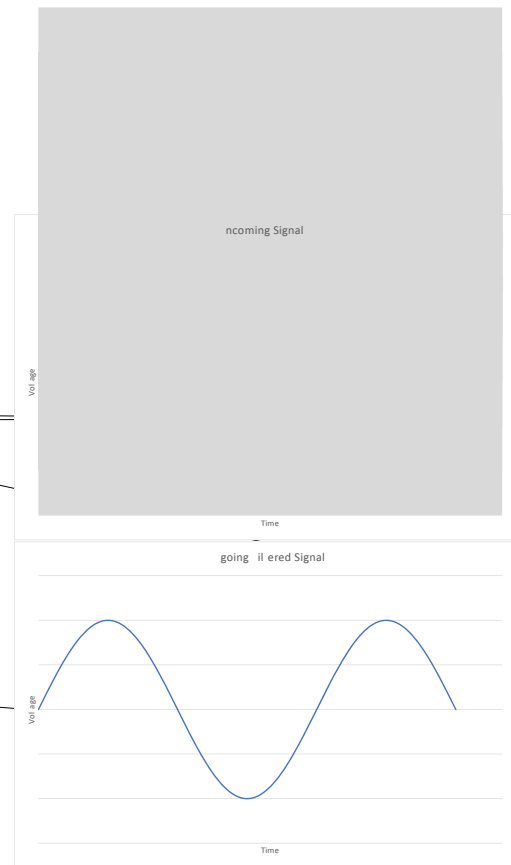
4. STYLE

A	Split, Saddle Clamp
B	Split, EMI
C	One Piece, Sealed, EMI
D	1 piece, saddle clamp
E	Sealed/One piece, EMI band, oval exit

5. PLATING

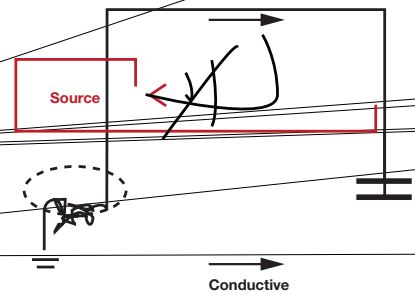
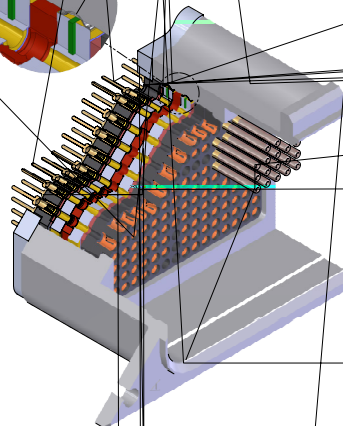
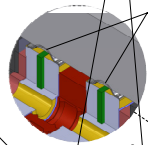
1	Electroless Nickel
2	OD Chromate
3	Tin
4	Gold
5	Zinc Nickel
6	Yellow CAD per ARINC 404
7	Chem Film
8	Nickel Fluorocarbon Polymer (Durmalon)





Radiative

Victim



FILTER CONNECTOR SELECTION

Selection of a particular filter circuit will depend on the required insertion loss characteristics and the system source and load impedances. By arranging the capacitor and ferrites in a variety of combinations a number of equivalent circuits may be attained. The ferrite elements always face the low impedance side of the filter. These filter types are available in a wide range of capacitance and voltage values and may be selected in virtually any combination within the connector insert. In addition to filter contacts, isolated contacts and ground contacts are available.

The following factors may affect the filter performance, and should be considered when selecting a filter connector and Amphenol Canada takes these into account when designing your filter solution.

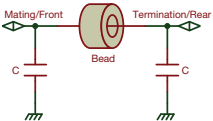
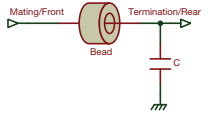
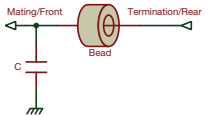
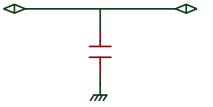
FILTER CONNECTOR PARAMETERS

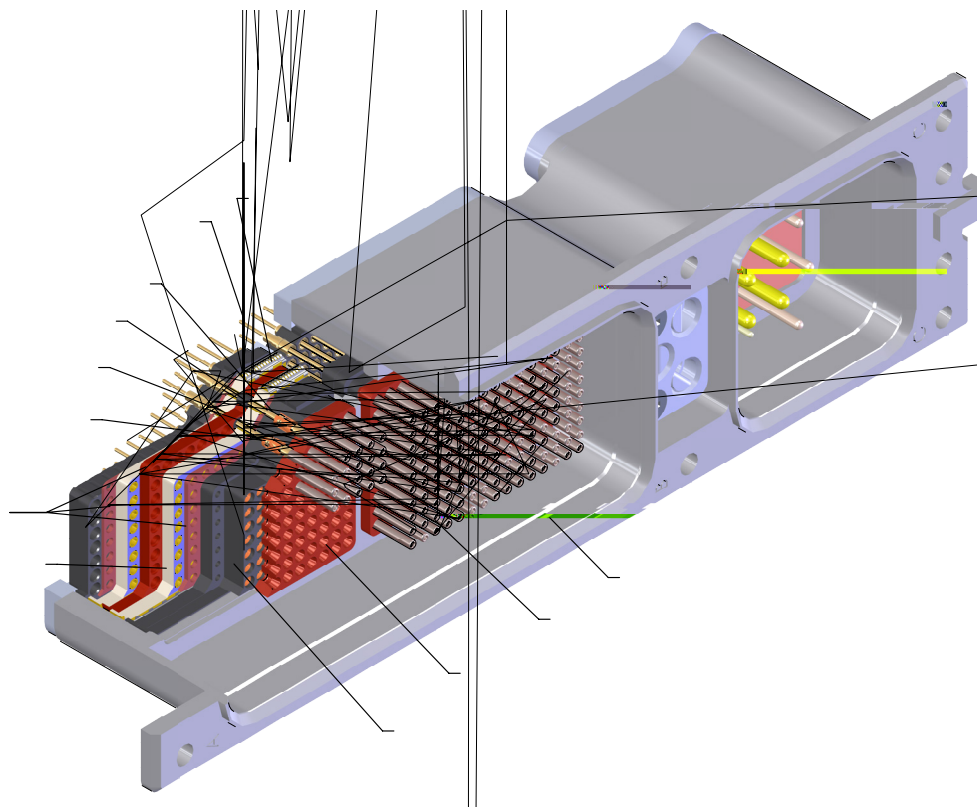
Operating/working voltage is specified for the normal signal line voltage. Dielectric Withstanding Voltage (DWV) is specified for the transient voltage surges.

Operating currents cause magnetic saturation of inductive elements (ferrites). Therefore filters with ferrite inductors (Pi, CL, LC and T) will perform much like C filters as the ferrite approaches saturation. The saturation point can vary by ferrite characteristics and size but typically occurs above 0.1 A. The DC current rating through the contact is much higher and only depends on the contact size.

Capacitance and filters can operate between -55°C to +125°C; however, the performance can degrade with changes in the temperature. Capacitance and insertion loss performance are shown at 25°C. The typical high capacitance (>500pF) dielectric (X7R) has temperature coefficients of $\pm 15\%$ from -55°C to +125°C. The typical low capacitance (<500pF) dielectric (C0G) has a negligible temperature coefficients of $\pm 0.3\%$ from -55°C to +125°C.

Additional transient voltage suppression requirements such as lightning strikes may necessitate the addition of diodes or MOV's to the PCB or in the connector.

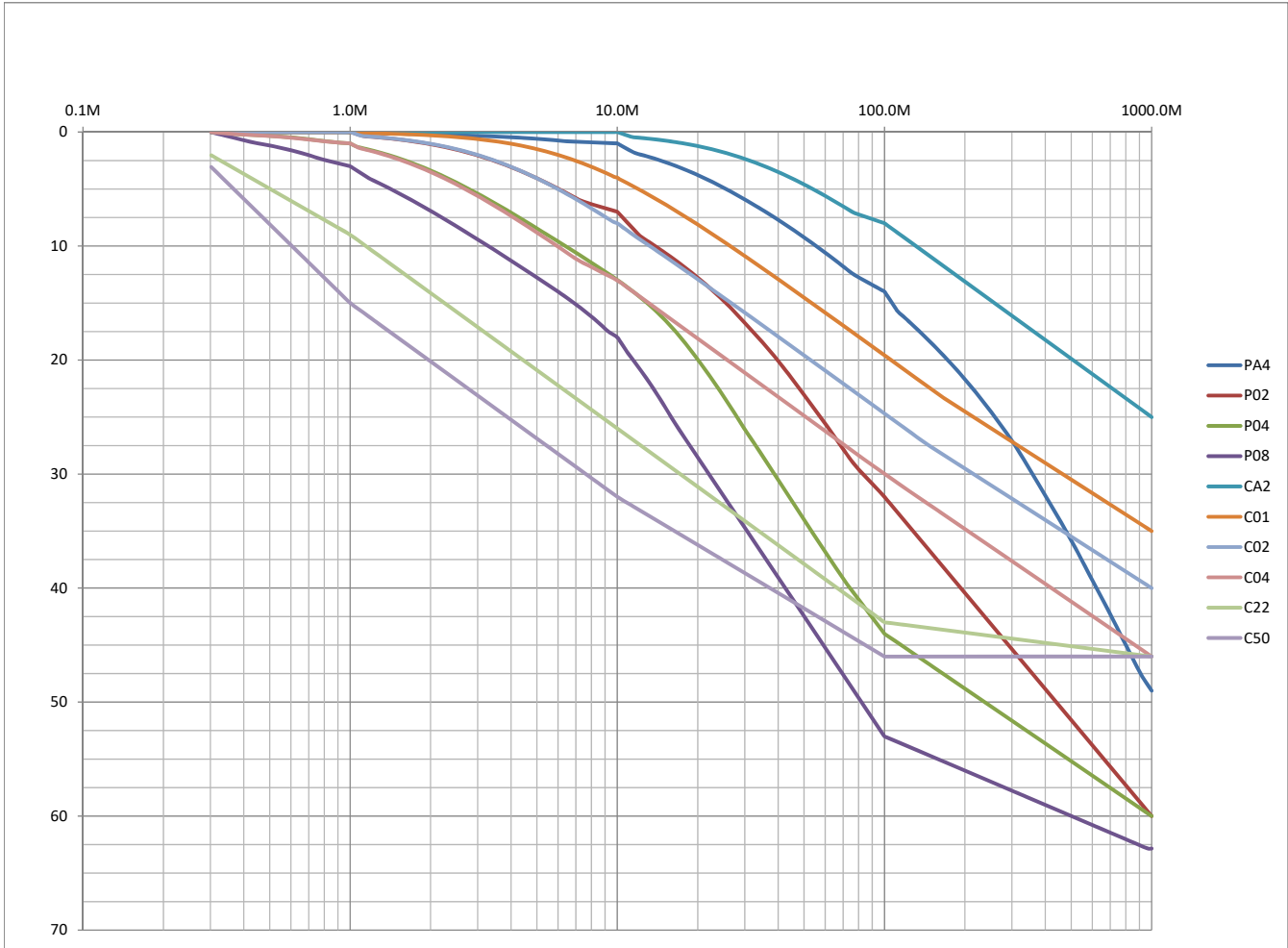
FILTER TYPES	FILTER CIRCUIT	BEST FILTERING APPLICATION
PI		Unknown or medium source and load Impedance
LC		Low impedance on mating side, high impedance on termination side
CL		High impedance on mating side, low impedance on termination side
C		



TYPE FILTER		PI				C, LC, CL, T					
		PA4	P02	P04	P08	CA2	C01	C02	C04	C22	C50
Capacitance		400-800 pF	1.8-3.6 nF	4-8 nF	8-16 nF	200-400 pF	0.9-1.8 nF	1.8-3.6 nF	4-8 nF	22-40 nF	50-100 nF
Insertion Loss (dB)	300 KHz	-	-	-	-	-	-	-	-	2	3
	1 MHz	-	-	1	3	-	-	-	1	9	15
	10 MHz	1	7	13	18	-	4	8	13	26	32
	100 MHz	14	32	44	53	8	20	25	30	43	46
	1 GHz	49	60	60	63	25	35	40	46	46	46
Working voltage (VDC) (@ 25° & sea level)		200									
Dielectric Withstand voltage (VDC) (@ 25°C & 50 mA max charging current)		500									
Insulation Resistance (Gohms) (min) (@ 25°C & working voltage)		10									
Current Rating by Contact Size (continuous max, DC amperes)		#22 = 5 Amps #20 = 7.5 Amps #16 = 13 Amps #12 = 23 Amps									
Dissipation Factor @ 1kHz		3% Max									

Note: Other capacitance values, mixed capacitance arrangements, ground and isolated contacts are available. Consult the factory for your particular applications.

*Acceptance testing performance to 1 G Hz maximum



PART NUMBER KEY

1. Filter	2. Series	3. Class	4. Shell Style	5. Termination Style	6. Connector Size	7. Polarizing Position	8. Customer Number
485-	4	2	R	B	3	00-	XXX

STEPS

	PART #	DESCRIPTION
1. FILTER	485-	Filter Connector
2. CONNECTOR SERIES	4	ARINC 404
3. CLASS	1	Unsealed
	2	Sealed
4. SHELL STYLE	A	Adapter
	P	Plug
	R	Receptacle
5. TERMINATION STYLE	B	PCB
	S	Solder Cup
	T	Crimp
6. CONNECTOR SIZE	A	Size 1 Non-Polarized
	1	Size 1 Polarized
	2	Size 2
	3	Size 3
	4	Size 4
8. POLARIZING POSITION	00-	N/A
	01-M6-	Per ARINC Specs
9. CUSTOMER NUMBER	XXX	