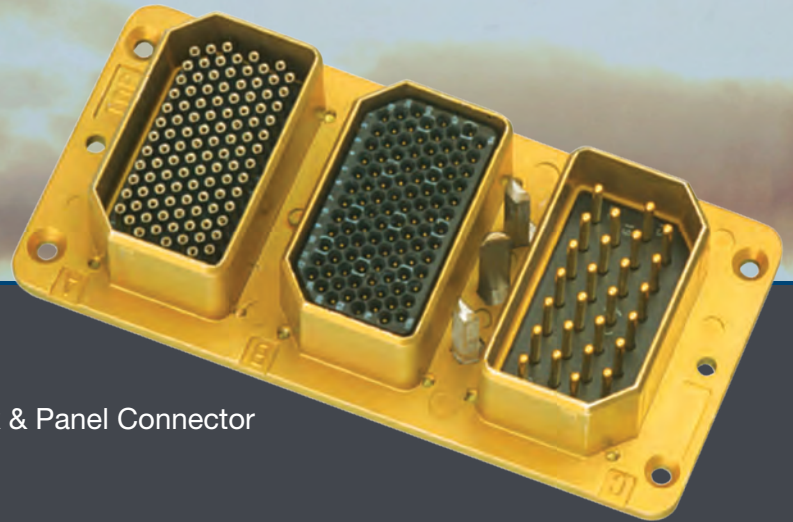
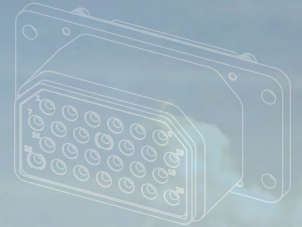
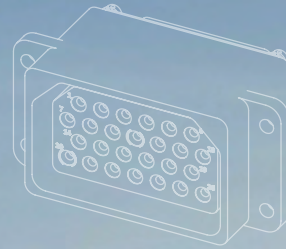


ARINC-404

RACK & PANEL CONNECTOR



AR

ARINC - Rack & Panel Connector

Amphenol CANADA
MILITARY & AEROSPACE

ARINC 404



TABLE OF CONTENTS

- Introduction, Performance & Material Specifications 2
- How-to-order 3
- Insert Arrangement Patterns 4-5
- Insert Layout Designator 6-14
- Mounting Modifier 15-16
- Keying 17
- Polarizing Positions 18-20
- Single Bay (A) - Non Polarized, Plug and Receptacle Drawings 21
- Single Bay (B) - Polarized, Plug and Receptacle Drawings 22
- Double Bay (2) - Polarized, Plug and Receptacle Drawings 23
- Triple Bay (3) - Polarized, Plug and Receptacle Drawings 24
- Four Bay (4) - Polarized, Plug and Receptacle Drawings 25
- Panel Cutouts A, B, and 2 26
- Panel Cutouts 3 and 4 27

- Contacts:**
- Contacts Power/Signal, Coax, Dust Covers 28
- RF Contacts 29
- Backshells How-to-order 30

- Filter:**
- Filter Overview 31
- Filter Parameters 32
- Filter Construction, Technical Details 33
- Filter Plots 34
- Filter How-to-order 35

Introduction to Rack and Panel Connectors

ARINC 404

INTRODUCTION

Amphenol's "AR" Series, ARINC rack and panel connectors, are designed to meet or exceed the requirements of MIL-C-81659 and ARINC Specification 404. The "AR" Series is a multi-purpose connector used in aerospace, military and computer periphery applications.

These connectors are available in five shell styles with up to four insert cavities. Inserts in this product line accommodate signal and power contacts in sizes 12, 16, 20 and 22. Coaxial contacts are available in sizes 5 and 9. Insert arrangements are available utilizing a single type contact or a combination of standard and coaxial contacts.

Non-environmental and environmentally sealed connectors are offered. The environmental sealing is accomplished by wire sealing grommets and interfacial seals. Application specific designs, including transient protection, are available from Amphenol. Please ask your local sales engineer or contact Amphenol Canada Corporation for further information.

PERFORMANCE SPECIFICATIONS

Amphenol "AR" Series Connectors are designed per ARINC 404 specifications and utilize pin and socket contacts manufactured in conformance with MIL-C-39029.



MATERIAL SPECIFICATIONS

Material Specifications	Material	Finish
Shells	Aluminum Alloy	"Yellow or Olive drab Chromate over Cadmium, Electroless Nickel, Chem film (Anodized), Nickel-PTFE/ Durmalon"
Retaining Plates	Aluminum Alloy	Blue anodized, Electroless Nickel
Insulator Material	Thermoset or Thermoplastic	
Screws, Lock washers, Washers	Stainless Steel	Passivated
Contact	Copper Alloy	Gold over Nickel
Contact Hood	Stainless Steel	Passivated
Contact Retention Clips	Beryllium Copper	
Face Seals, Grommets	Silicone Rubber or Fluorosilicone Rubber	
Polarization Kit - PLUG		
Post, Lock washer	Stainless Steel	Passivated
Nut	Brass	Yellow Chromate over Cadmium or Electroless Nickel
Polarization Kit - RECEPTACLE		
Plate	Aluminum Alloy	Electroless Nickel
Keys	Aluminum or Zinc Alloy	Yellow Chromate over Cadmium
Screws	Stainless Steel	Passivated

1.	2.	3.	4.	5.	6.	7.	8.	9.
RoHS Compliance	Connector Series	Shell Style	Class	Insert Layout Designator	Shell Type	Connector Mounting Modifier	Polarizing Position	Modification (Contact, Finish, Material)
E	AR	2	A	313	3	00	01	200

1. ROHS COMPLIANCE	
E	RoHS Compliant
	Omit for non-RoHS compliant connectors

2. CONNECTOR SERIES	
AR	Series Connector ARINC 404

3. SHELL STYLE	
A	Single Bay, non-polarized
B	Single Bay, polarized
2	Double Bay, polarized
3	Triple Bay, polarized
4	Four Bay, polarized

4. CLASS	
A	Non-environmental, standard commercial connector
E	Environmentally sealed connector

5. INSERT LAYOUT DESIGNATOR - SEE PAGES 6-14	
See insert layout charts on pages 6-14. For Military style inserts, include an 'M' ahead of the Insert Designator Number.	

6. SHELL TYPE	
3	Plug (rack side)
4	Receptacle (box side)

7. MODIFICATION CODE	
See pages 15-16 for chart and illustrations.	

8. POLARIZING POSITION			
Polarization Position Code	Part Number	QTY	Description
00	Not Required	Not Required	Polarization kit not installed or supplied
XX (where XX is 01 to M6)	AC-040020-K02	1	Polarization kit is installed per Amphenol Spec \$1023M
DD	AC-040020-K01	1	Polarization kit is supplied but not installed

9. CUSTOMER ORDERING CODE	
200	Standard connector kit with standard contacts. RF contacts are not supplied with the connector and must be ordered separately
201	Standard connector without contacts supplied. Contacts must be ordered separately
204	Standard connector kit with 3% extra contacts supplied per connector per contact population per contact size
XXX	Customer Ordering Code - Custom Designs

Consult factory if other modifications are required.

Insert Arrangements

ARINC 404



(0)	BLANK
QTY	Size



C

(2)	C2
QTY	Size
2	1 C



C

(3)	C3A
QTY	Size
3	9 C



C F

(4)	4F2C2
QTY	Size
2	8 C
2	16 F



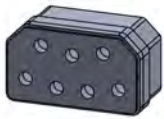
C

(5)	C5
QTY	Size
5	5 C



T

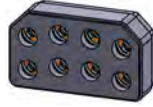
(6)	C6
QTY	Size
6	9 T



(7)	7
QTY	Size
7	8



(8)	8
QTY	Size
8	12



C

(8)	C8
QTY	Size
8	9 C



C

(8)	D8
QTY	Size
4	16
4	16 or 15 C



(10)	10
QTY	Size
8	20
2	8



(10)	A10
QTY	Size
8	16
2	8



C

(10)	10C3
QTY	Size
7	20
3	11 C



(13)	13
QTY	Size
13	16



Q T

(14)	14T3Q3
QTY	Size
8	20
3	8 T
3	8 Q



(17)	17
QTY	Size
17	20



T

(25)	25C15
QTY	Size
10	22
15	12 T



C

(26)	26
QTY	Size
26	16 or 15 C

Notes:

1. Mating face of pin insert shown. Socket face is mirror image.
2. Some arrangements are not available in all series. Consult Amphenol for more information.
3. Insert 106 has reversed contact gender.
4. For military version, consult Amphenol Canada Corporation.

C COAX

T TWINAX OR TRIAX

F FIBER

Q QUADRAX



(32)	32
QTY	Size
29	20
3	16



C

(32)	32C4
QTY	Size
24	20
4	16
4	9 C



C

(32)	32C2
QTY	Size
30	20
2	5 C



C

(33)	33C4
QTY	Size
25	20
4	16
4	5 C



Q F

(33)	33Q4F4
QTY	Size
25	20
4	16 F
4	8 Q



C

(36)	36C7
QTY	Size
29	22
7	5 C



(40)	40
QTY	Size
40	20



C

(40)	40C1
QTY	Size
39	20
1	5 C



(45)	45
QTY	Size
45	20



(57)	57
QTY	Size
57	20



C

(67)	67
QTY	Size
64	20
3	16 or 15 C



F

(73)	71F2
QTY	Size
67	20
4	16
2	16 F



(88)	88
QTY	Size
79	22
6	20
3	16



(106)	106
QTY	Size
106	22

C COAX

T TWINAX OR TRIAX

F FIBER

Q QUADRA

Insert Layout Designator

ARINC 404

Insert Designator	Shell Cavity Insert Position			
	A	B	C	D
001	26P	-	-	-
002	26S	-	-	-
003	26P	26P	-	-
004	26S	26S	-	-
005	26P	26P	26P	-
006	26S	26S	26S	-
007	26P	26P	26P	26P
008	26S	26S	26S	26S
009	40P	-	-	-
010	40S	-	-	-
011	40P	40P	-	-
013	40P	40P	40P	-
014	40S	40S	40S	-
015	40P	40P	40P	40P
016	40S	40S	40S	40S
017	45P	-	-	-
018	45S	-	-	-
019	45P	45P	-	-
020	45S	45S	-	-
021	45P	45P	45P	-
022	45S	45S	45S	-
023	45P	45P	45P	45P
024	45S	45S	45S	45S
025	57P	-	-	-
026	57S	-	-	-
027	57P	57P	-	-
028	57S	57S	-	-
029	57P	57P	57P	-
030	57S	57S	57S	-
031	57P	57P	57P	57P
032	57S	57S	57S	57S
033	67P	-	-	-
034	67S	-	-	-
035	67P	67P	-	-
036	67S	67S	-	-
037	67P	67P	67P	-
038	67S	67S	67S	-
039	67P	67P	67P	67P
040	67S	67S	67S	67S
041	106P	-	-	-
042	106S	-	-	-

Insert Designator	Shell Cavity Insert Position			
	A	B	C	D
043	106P	106P	-	-
044	106S	106S	-	-
045	106P	106P	106P	-
046	106S	106S	106S	-
047	106P	106P	106P	106P
048	106S	106S	106S	106S
057	106S	26P	-	-
058	106P	26S	-	-
059	26P	106S	-	-
060	26S	106P	-	-
061	26P	26P	26P	26S
062	26S	26S	26S	26P
063	10C3P	10C3P	C8P	67P
064	10C3S	10C3S	C8S	67S
065	C8P	C8P	C8P	-
066	C8S	C8S	C8S	-
067	C8P	C8P	106S	-
068	C8S	C8S	106P	-
069	C8P	33C4P	-	-
070	C8S	33C4S	-	-
071	67P	106S	-	-
072	67S	106P	-	-
073	67P	67P	C8P	-
074	67S	67S	C8S	-
075	67P	67P	106S	-
076	67S	67S	106P	-
077	67P	106S	33C4P	-
078	67S	106P	33C4S	-
079	67P	106S	67P	-
080	67S	106P	67S	-
081	67P	67P	33C4P	33C4P
082	67S	67S	33C4S	33C4S
083	D8P	-	-	-
084	D8S	-	-	-
085	C8P	C8P	67P	67P
086	C8S	C8S	67S	67S
087	106S	C8P	-	-
088	106P	C8S	-	-
089	106S	67P	-	-
090	106P	67S	-	-
091	106S	106S	67P	-



Insert Designator	Shell Cavity Insert Position			
	A	B	C	D
092	106P	106P	67S	-
093	106S	106S	33C4P	-
094	106P	106P	33C4S	-
095	106S	C8P	106S	106S
096	106P	C8S	106P	106P
097	106S	67P	106S	C8P
098	106P	67S	106P	C8S
099	106S	67P	C8P	C8P
100	106P	67S	C8S	C8S
101	106S	106S	67P	67P
102	106P	106P	67S	67S
103	33C4P	-	-	-
104	33C4S	-	-	-
105	33C4P	106S	-	-
106	33C4S	106P	-	-
107	33C4P	C8P	-	-
108	33C4S	C8S	-	-
109	C2P	40C1P	-	-
110	C2S	40C1S	-	-
111	C2P	57P	-	-
112	C2S	57S	-	-
113	C3P	67P	-	-
114	C3S	67S	-	-
115	C3P	106S	-	-
116	C3S	106P	-	-
117	C3P	106S	-	-
118	C3S	106P	-	-
119	10C3P	32C2P	-	-
120	10C3S	32C2S	-	-
121	32C2P	40C1P	-	-
122	32C2S	40C1S	-	-
123	32C2P	45P	-	-
124	32C2S	45S	-	-
125	32C2P	57P	-	-
126	32C2S	57S	-	-
127	32C2P	67P	-	-
128	32C2S	67S	-	-
129	32C2P	106S	-	-
130	32C2S	106P	-	-
131	40C1P	40C1P	-	-
132	40C1S	40C1S	-	-



Insert Designator	Shell Cavity Insert Position			
	A	B	C	D
133	57P	106S	-	-
134	57S	106P	-	-
135	C8P	-	-	-
136	C8S	-	-	-
137	10C3P	-	-	-
138	10C3S	-	-	-
139	32C2P	-	-	-
140	32C2S	-	-	-
141	40C1P	-	-	-
142	40C1S	-	-	-
143	67C3P	-	-	-
144	67C3S	-	-	-
145	C8P	57P	-	-
146	C8S	57S	-	-
147	57P	26P	-	-
148	57S	26S	-	-
149	32C4P	-	-	-
150	32C4S	-	-	-
151	32C4P	106S	-	-
152	32C4S	106P	-	-
153	67C3P	67C3P	32C4P	32C4P
154	67C3S	67C3S	32C4S	32C4S
155	C8P	32C4P	-	-
156	C8S	32C4S	-	-
157	106S	106S	32C4P	-
158	106P	106P	32C4S	-
159	32C4P	C8P	-	-
160	32C4S	C8S	-	-
161	67C3P	106S	32C4P	-
162	67C3S	106P	32C4S	-
163	C8P	C8P	-	-
164	26P	26P	-	-
165	C8P	26P	-	-
166	C8S	26S	-	-
167	C7AAP	26P	-	-
168	C7AAS	26S	-	-
170	57S	32C2S	-	-
171	57P	32C2P	-	-
173	106P	106P	106P	67S
174	106S	106S	106S	67P
175	106S	106S	32C4P	26P

Insert Layout Designator

ARINC 404

Insert Designator	Shell Cavity Insert Position			
	A	B	C	D
176	106P	106P	32C4S	26S
177	C7AAP	26P	-	-
178	C7AAS	26S	-	-
180	32C4S	32C2S	-	-
181	32C4P	32C2P	-	-
182	106S	8S	-	-
183	106P	8P	-	-
184	C2S	67S	-	-
185	C2P	67P	-	-
186	106S	D8S	A10S	-
187	106P	D8P	A10P	-
188	106S	D8S	-	-
189	106P	D8P	-	-
190	A10S	D8S	-	-
191	A10P	D8P	-	-
192	67S	8S	7S	-
193	67P	8P	7P	-
194	C7AAS	A10S	106S	-
195	C7AAP	A10P	106P	-
200	40S	26S	8S	C6S
201	40P	26P	5P	C6P
297	26P	32C4P	-	-
298	26S	32C4S	-	-
299	8P	8P	8P	8P
400	32C2S	32C2S	57S	-
401	32C2P	32C2P	57P	-
402	45S	33C4S	-	-
403	Q6S	67S	32C2S	-
499	3S	3S	-	-
500	C8P	C6P	-	-
501	C8S	C6S	-	-
502	C6P	C8P	-	-
503	C6S	C8S	-	-
504	106P	BLANK	106P	BLANK
505	26S	67S	-	-
506	26P	67P	-	-
507	C8P	106P	-	-
508	C8S	106S	-	-
509	18P	57P	-	-
510	18S	57S	-	-
511	8P	45P	-	-

Insert Designator	Shell Cavity Insert Position			
	A	B	C	D
512	8S	45S	-	-
513	26P	67P	67P	-
514	26S	67S	67S	-
515	106P	C2S	-	-
516	106S	C2P	-	-
517	C8P	106P	106P	106P
518	C8S	106S	106S	106S
519	106P	106P	106P	26P
520	106S	106S	106S	26S
521	67S	67S	106P	106P
522	67P	67P	106S	106S
523	67P	26P	C3P	-
524	32C4P	32C4P	32C4P	-
525	67P	D8P	-	-
526	40S	32C4S	-	-
527	40P	32C4P	-	-
528	8P	17P	-	-
529	8S	17S	-	-
530	32C4P	106P	-	-
531	40S	D8S	-	-
532	67S	D8S	-	-
533	26P	45P	-	-
534	26S	57S	-	-
535	40S	57S	-	-
536	C8P	C8P	-	-
537	C8S	C8S	-	-
538	C2P	8P	-	-
539	106S	106S	C8P	-
540	106P	106P	C8S	-
541	106S	106S	26P	-
542	8P	26P	-	-
543	45P	8P	-	-
544	45S	8S	-	-
545	DUMMY	67P	-	-
546	78S	C5P	-	-
547	106P	32C4S	32C4S	-
548	106S	32C4P	32C4P	-
549	33C4S	33C4S	-	-
550	32C4P	32C4P	-	-
551	C8P	C6P	-	-
552	C8S	C6S	-	-



Insert Designator	Shell Cavity Insert Position			
	A	B	C	D
553	40S	32C2S	-	-
554	40P	32C2P	-	-
555	32C4P	45P	-	-
556	C8S	67S	-	-
557	32C4S	45S	-	-
558	C12	-	-	-
559	106S	106S	106P	-
560	32C2P	26P	-	-
561	32C2S	26S	-	-
562	40C1S	40C1S	-	-
563	8P	26P	67P	67P
564	57S	C2S	-	-
565	8S	26S	67S	67S
566	40S	C8S	-	-
567	32C2S	26S	-	-
568	106P	106P	106S	-
569	106P	91C1P	-	-
570	106S	91C1S	-	-
572	DUMMY	DUMMY	-	-
573	8S	-	-	-
574	C2S	C2S	57S	D8S
575	C2P	C2P	57P	D8P
576	33C4P	40C1P	-	-
577	BLANK	57P	-	-
578	57S	C8S	-	-
579	57P	C8P	-	-
580	C8S	DUMMY	-	-
581	26S	C8S	-	-
582	26P	C8P	-	-
583	67S	C8S	-	-
584	67P	C8P	-	-
585	A10S	67S	-	-
586	106S	40C1P	-	-
587	106P	D8S	67S	67S
588	36C7S	36C7S	-	-
589	30C4P	106S	-	-
590	C6P	C6P	40P	-
591	C8S	106P	-	-
592	C6S	C6S	40S	-
593	106P	57P	106P	-
594	26P	57P	57P	-



Insert Designator	Shell Cavity Insert Position			
	A	B	C	D
595	106S	57S	106S	-
596	26S	57S	57S	-
597	106P	40C1S	-	-
598	8S	8S	-	-
599	45S	C8S	-	-
600	A10S	67S	-	-
601	26S	D8S	-	-
602	D8P	D8S	-	-
603	10C3S	-	-	-
604	8P	-	-	-
605	8S	-	-	-
606	57P	33C4S	-	-
607	57S	33C4P	-	-
608	36C7S	8P	-	-
609	36C7P	8S	-	-
610	C3S	67S	-	-
611	32C2S	-	-	-
612	106S	45S	-	-
613	106P	45P	-	-
614	45P	8S	-	-
615	45S	8P	-	-
616	106P	45S	-	-
617	106S	45P	-	-
618	C2S	C2S	C2S	C2S
619	67S	32C2S	-	-
620	32C4S	106P	67S	-
621	26P	8P	-	-
622	45P	45P	D8P	-
623	45S	45S	D8S	-
624	106S	67S	-	-
625	106P	67P	-	-
626	106S	32C4S	-	-
627	106P	32C4P	-	-
628	67S	26S	-	-
629	67P	26P	-	-
630	67S	40C1S	-	-
631	67P	40C1P	-	-
632	32C4S	D8S	-	-
633	32C4S	D8P	-	-
634	32C4S	32C4S	-	-
635	32C4P	32C4P	-	-

Insert Layout Designator

ARINC 404

Insert Designator	Shell Cavity Insert Position			
	A	B	C	D
636	106S	C8S	-	-
637	106P	C8P	-	-
638	26S	32C2S	-	-
639	26P	32C2P	-	-
640	D8S	32C4S	-	-
641	D8P	32C4P	-	-
642	40C1S	67S	-	-
643	40C1P	67P	-	-
644	32S	32S	-	-
645	32P	32P	-	-
646	30C4P	36W7S	-	-
647	32C4S	32C4S	32C4S	-
648	67P	32C2P	-	-
649	Special			
650	Special			
651	45S	45S	26S	26S
652	45P	45P	26P	26P
653	106P	106P	57S	-
654	106S	106S	57P	-
655	36C7S	106S	-	-
656	33C4P	67P	-	-
657	33C4S	67S	-	-
658	106P	40S	-	-
659	26P	57P	-	-
660	36C7S	31C4S	-	-
661	26S	45S	-	-
662	67P	67S	32C2P	-
663	67S	67P	32C2S	-
664	45S	106P	-	-
665	67P	106P	32C2S	-
666	67S	106S	32C2P	-
667	57S	45S	-	-
668	57P	C1	-	-
669	88P	106P	106P	-
670	88S	106S	106S	-
671	C3P	26P	67P	-
672	33C4S	D8S	-	-
673	33C4P	D8P	-	-
674	C2P	C2P	C2P	C2P
675	36C7P	32C4P	-	-
676	26S	26S	106P	106P

Insert Designator	Shell Cavity Insert Position			
	A	B	C	D
677	33C4P	40C1P	-	-
678	106P	26S	C8S	-
679	106P	106P	26S	-
680	13S		-	-
681	57P	C5P	-	-
682	57S	C5S	-	-
683	106S	36C7S	-	-
684	8P	8P	17P	-
685	8S	8S	17S	-
686	32C4P	40P	-	-
687	32C4S	40S	-	-
688	17P	C3P	C3P	C3P
689	17S	C3S	C3S	C3S
690	45S	45S	26S	26S
691	45P	45P	26P	26P
692	C8S	C8S	-	-
693	32S		-	-
694	DUMMY	57S	-	-
695	DUMMY	67S	-	-
696	26S	8S	-	-
697	C2S	57S	-	-
698	45S	40S	-	-
699	26S	BLANK	106P	BLANK
700	32C4PF/R	106S FR	-	-
701	67P	106S	106S	-
702	67S	106P	106P	-
703	8S	26S	-	-
704	8P	8P	57P	-
705	8S	8S	57S	-
706	57S	BLANK	-	-
707	67P	8P	-	-
708	67S	8S	-	-
709	67S	67S	C8S	BLANK
710	26P	7P	-	-
711	32C2P	32C2P	-	-
712	32C2S	32C2S	-	-
713				
714	40S	67S	67S	-
715	40P	67P	67P	-
716	106S	106S	36W7S	-
717	106P	106P	67P	67P



Insert Designator	Shell Cavity Insert Position			
	A	B	C	D
718	106S	106S	67S	67S
719	67P	67P	26P	C8P
720	67S	67S	26S	C8S
721	106P	106P	67P	26P
722	106S	106S	67S	26S
723	106P	67P	67P	67P
724	106S	67S	67S	67S
725	25C15S	73Q1S	-	-
726	25C15P	73Q1P	-	-
727	106P	25C15S	106S	-
728	106S	25C15P	106P	-
729	36W7S	106P	-	-
730	106P	36W7S	-	-
731	106P	32C4S	-	-
732	106S	32C4P	-	-
733	67S	36W7S	-	-
734	67P	36W7P	-	-
735	30C4S	106P	-	-
736	106S	40S	-	-
737	106P	40P	-	-
738	26S	26S	45S	45S
739	26P	26P	45P	45P
740	40S	106P	-	-
741	40P	106S	-	-
742	40S	26S	-	-
743	40P	26P	-	-
744	57P	106P	-	-
745	57S	106S	-	-
746	D8S	106S	106S	106S
747	D8P	106P	106P	106P
748	26P	DUMMY	-	-
749	26S	DUMMY	-	-
750	26S	40S	-	-
751	26P	40P	-	-
752	67P	36C7S	-	-
753	67S	36C7P	-	-
754	106P	67P	C8P	67P
755	106S	67S	C8S	67S
756	67P	C8P	8P	BLANK
757	67S	C8S	8S	BLANK



Insert Designator	Shell Cavity Insert Position			
	A	B	C	D
758	26P	40C1P	-	-
759	26S	40C1S	-	-
760	32C2S	67S	32C2S	-
761	32C2P	67P	32C2P	-
762	106P	26P	-	-
763	106S	26S	-	-
764	33C4P	45P	-	-
765	33C4S	45S	-	-
766	33C4P	DUMMY	-	-
767	33C4S	DUMMY	-	-
768	26P	26P	26P	67P
769	26S	26S	26S	67S
770	57P	DUMMY	-	-
771	57S	DUMMY	-	-
772	32P		-	-
773	106P	DUMMY	-	-
774	106S	DUMMY	-	-
775	57P	57S	-	-
776	57S	57P	-	-
777				
778				
779	8P	D8P	-	-
780	8S	D8S	-	-
781	32P	57P	-	-
782	32S	57S	-	-
783	33C4P	33C4P	-	-
784	32C4P	D8P	-	-
785	32C4S	D8S	-	-
786	45P	106S	-	-
787	45S	106P	-	-
788	40S	8S	-	-
789	D8P	106S	-	-
790	D8S	106P	-	-
791	26S	106P	-	-
792	26P	106S	-	-
793	Q8P	Q8P	-	-
794	Q8S	Q8S	-	-
795	32C4P	26P	-	-
796	32C4P	C8S	33C4S	-
797	36W7P	36W7P	-	-

Insert Layout Designator

ARINC 404

Insert Designator	Shell Cavity Insert Position			
	A	B	C	D
800	67P	67P	40P	-
801	67P	67P	67P	-
802	36W7P	106P	-	-
803	30C4P	106P	-	-
804	106P	22Q2S	-	-
805	106S	22Q2P	-	-
806	C2P	C2P	-	-
807	C2S	C2S	-	-
808	106P	36C7P	-	-
809	25T15	106P	-	-
810	67S	26S	C3S	-
811	36W7S	36W7S	-	-
812	106P	T8S	106P	-
813	106S	T8P	106S	-
814	C8P	C8P	36W7S	-
815	C8S	C8S	36W7P	-
816	DUMMY	33C4S	-	-
817	40P	57P	-	-
818	D8P	45P	-	-
819	D8S	45S	-	-
820	26P	26P	-	-
821	26S	26S	45S	-
824	106P	106S	-	-
825	67P	67S	-	-
826	106S	106P	-	-
827	67S	67P	-	-
828	8S	8S	26S	-
829	8P	8P	26P	-
830	106P	33C4S	----	----
831	106P	14T3Q3P		
832	106S	14T3Q3S		
833	106S	67S	32C4S	67P
834	67P	67S	106S	C8S
835	106P	106S	67S	67P
836	106P	106S	67S	26S
837	8S	8S	8S	----
838	8P	8P	8P	----
839	26P	32C4P	106P	
840	26S	32C4S	106S	
841	88S	88S	----	----
842	88P	88P	----	----

Insert Designator	Shell Cavity Insert Position			
	A	B	C	D
843	67S	57S	-	-
844	67P	57P	-	-
845	106S	106P	67P	26P
846	106P	67P	32C4P	67S
847	67S	67P	106P	C8P
848	26S	106S	-	-
849	106S	106P	67P	67S
850	40P	45P	45P	-
851	106S	67P	67P	-
852	106S	40P	C8	-
853	106P	40S	C8	-
854	67P	106P	-	-
855	67S	106S	-	-
856	26P	106P	-	-
857	33C4P	67S	-	-
858	33C4S	67P	-	-
859	106S	33C4S	-	-
860	67S	33C4S	-	-
861	67P	33C4P	-	-
862	106P	45P	8P	-
863	8P	8P	-	-
864	32C4P	106P	-	-
865	32C4S	106S	-	-
866	C8P	57P	8P	-
867	26S	67S	-	-
868	33C4S	67S	-	-
869	57P	67P	-	-
870	106S	4F2C2P	-	-
871	106P	4F2C2S	-	-
872	8P	26P	40P	-
873	8S	26S	40S	-
876	57P	C5P	-	-
877	106S	34C2Q1S	-	-
878	106P	34C2Q1P	-	-
879	106S	33C2S	-	-
880	106P	33C2P	-	-
881	45S	40S	40S	45S
882	43C1S	43C1S	-	-
883	43C1P	43C1P	-	-
884	32C2P	106P	-	-
885	32C2S	106S	-	-



Insert Designator	Shell Cavity Insert Position			
	A	B	C	D
886	45FS	106S	-	-
887	45FP	106P	-	-
888	106S	33C4P	106S	33C4P
889	106P	33C4S	106P	33C4S
890	106S	4F2C2S	106S	-
891	106P	4F2C2P	106P	-
892	73F6s	8Q6s	73F6s	8Q6s
893	73F6p	8Q6p	73F6p	8Q6p
894	26S	40S	-	-
895	33C4S	D8S	-	-
896	81C3S	-	-	-
897	40s	8s	26s	-
898	40S	67S	-	-
899	40P	67P	-	-
902	17s	-	-	-
903	17p	-	-	-
904	67P	106P	106P	106P
905	67S	106S	106S	106S
906	40P	36C7S	106S	-
907	106P	8P	-	-
908	13P	-	-	-
909	32C4P	D8S	-	-
910	32C4P	40P	26P	-
911	32C4S	40S	26S	-
912	40S	D8P	26S	-
913	40P	D8S	26P	-
914	57P	40P	-	-
915	57S	40S	-	-
916	17P	17P	-	-
917	17S	17S	-	-
918	26P	26P	32C4P	-
919	26S	26S	32C4S	-
920	32C4P	32C4P	26P	-
921	32C4S	32C4S	26S	-
922	D8P	D8P	40P	-
923	D8S	D8S	40S	-
924	C2P	-	-	-
925	32A	-	-	-
926	26P	67P	40P	-
927	8S	32C4S	-	-
928	8P	32C4P	-	-



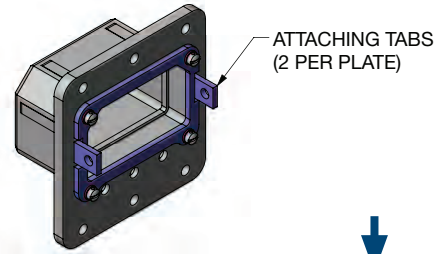
Insert Designator	Shell Cavity Insert Position			
	A	B	C	D
929	106p	D8s	67s	8s
930	45S	26S	106S	-
931	45P	26P	106P	-
932	C8S	C8S	Dummy	-
933	C8P	C8P	Dummy	-
934	C8S	C8S	Dummy	67S
935	C8P	C8P	Dummy	67P
936	26S	26P	-	-
937	26P	26S	-	-
938	32C4S	32C4P	-	-
939	32C4P	32C4S	-	-
940	40p	8s	26p	-
941	C8S	106p	26s	-
942	C8P	106S	26P	-
943	26P	67P	C3P	67P
944	C3S	26S	67S	67S
945	26S	67S	40S	-
946	40C1P	40C1S	-	-
947	62F2P	-	-	-
948	62F2S	-	-	-
949	106s	84C3s	-	-
950	106s	106s	C6S	-
951	57s	57s	26p	-
952	57s	5F5s	-	-
953	57p	5F5p	-	-
954	106s	12Q4p	5F5p	-
955	106p	12Q4s	5F5s	-
956	32C4P	67P	17P	106P
957	32C4S	67S	17S	106S
958	26P	67P	17P	106P
959	26S	67S	17S	106S
960	106s	106s	106s	32Q2s
961	106p	106p	106p	32Q2p
962	106P	106P	6FQ	-
963	81C3P	-	-	-
964	A10S	-	-	-
965	A10P	-	-	-
966	Q6P	67P	32C2P	-
967	106P	C2	-	-
968	40C1P	42B2P	-	-
969	40C1S	42B2S	-	-

Insert Layout Designator

ARINC 404



Insert Designator	Shell Cavity Insert Position			
	A	B	C	D
970	C8P	8P	-	-
971	40S	Q8S	40S	67P
972	40P	Q8P	40P	67S
973	12Q4P	-	-	-
974	32C4P	57P	-	-
975	32C4S	57S	-	-
976	33C4P	33Q3C1P	-	-
977	T8S	T8S	T8S	T8S
978	T8P	T8P	T8P	T8P
979	T8S	106S	Q8S	-
980	T8P	106P	Q8P	-
981	8P	36C7S	-	-
982	106S	32C2S	C8S	-
983	106P	32C2P	C8P	-
984	106S	32C4S	C8S	-
985	106P	32C4P	C8P	-
986	106S	26P	106S	3Q3P
987	106P	26S	106P	3Q3S
988	C8S	26P	26P	-
989	C8P	26S	26S	-
990	C8P	C8P	106S	106S
991	C8S	C8S	106P	106P
992	C8P	26P	-	-
993	C8S	26S	-	-
994	106P	14C7P	-	-
995	106S	14C7P	-	-
996	106P	45S	106P	-
997	106S	45P	106S	-
998	106P	67S	106P	67S
999	106S	33C4P	-	-
202	D8P	40P	67P	67P
M716	106P	106S	36W7S	-
059C	C26P	106S		
060C	C26S	106P		
716T	A106P	A106S	36T7	
683T	A106S	36T7		
1000	36C7S	36C7S	Dummy	

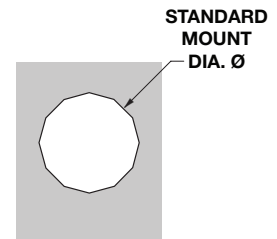


STANDARD MOUNTING

STANDARD MOUNTING													
	"Shell Sizes"	"No. of Thru Holes"	Location	"Dia. Ø +/- .003 (.076)"	"No. of C'Sunk Holes"	Location	"Minor Dia. Ø +/- .003 (.076)"	"C'Sunk Angle °"	"to Major Dia. Ø +/- .003 (.076)"	PLATING			
				In (mm)			In (mm)	Deg	In (mm)	Yellow Cadmium	"Electroless Nickel"	"Olive Drab"	"Nickel-PTFE/Durmalon™"
RECEPTACLE	ALL	ALL	Corners	0.12 (3.05)	-	-	-	-	-	00	AA	DA	NA
PLUG	A		Corners		-	-	-	-	-				
	B, 2	2	Middle		4	Corners	0.12 (3.05)	82	0.23 (5.84)				
	3	-	-		6	ALL							
	4	0	-		10								
STANDARD MOUNTING WITH ATTACHING TABS													
RECEPTACLE	ALL	ALL	Corners	0.12 (3.05)	-	-	-	-	-	02	AC	DC	NC
PLUG	A		Corners		-	-	-	-	-				
	B, 2	2	Middle		4	Corners	0.12 (3.05)	82	0.23 (5.84)				
	3	-	-		6	ALL							
	4	0	-		10								

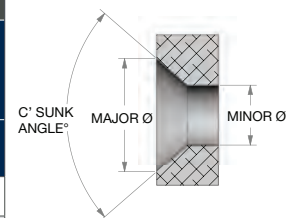
MOUNTING HOLE MODIFICATIONS

MOUNTING HOLE MODIFICATIONS							
"Shell Sizes"	"No. of Thru Holes"	Location	Dia. Ø	PLATING			
			In (mm)	Yellow Cadmium	"Electroless Nickel"	"Olive Drab"	"Nickel-PTFE/Durmalon™"
ALL	4	Corners	0.154 (3.91)	25	AR	DR	NR
B, 2, 3	6	ALL	0.154 (3.91)	20	AM	DM	NM
4		Corners & Middle					



COUNTER SUNK MOUNTING HOLES

COUNTER SUNK MOUNTING HOLES										
"Shell Sizes"	"No. of C'Sunk Holes"	Location	"Minor Dia. Ø +/- .003 (.076)"	C'Sunk Angle °	"to Major Dia. Ø +/- .003 (.076)"	PLATING				
			In (mm)	Deg	In (mm)	Yellow Cadmium	"Electroless Nickel"	"Olive Drab"	"Nickel-PTFE/Durmalon™"	
ALL	4	Corners	0.12 (3.05)	100	0.23 (5.84)	03	AD	DD	ND	
			0.135 (3.43)	82		08	AF	DF	NF	
			0.12 (3.05)	82		26	AS	DS	NS	
B, 2, 3, 4	ALL	ALL	0.23 (3.05)	100		A3	A1	D1	N1	
COUNTER SUNK MOUNTING HOLES WITH ATTACHING TABS										
ALL	4	Corners	0.23 (3.05)	100	.23 (3.05)	04	AE	DE	NE	
4	6	Corners & Middle		90	0.26 (6.60)	74	A2	D2	N2	

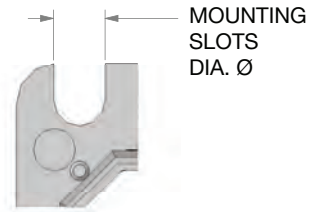


Mounting Modifier

ARINC 404

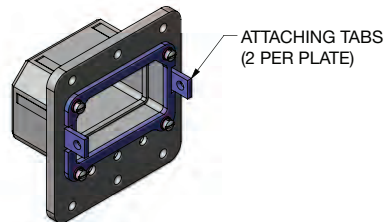
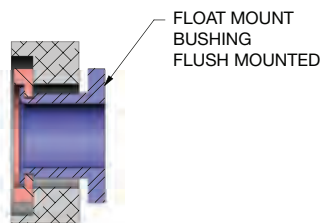
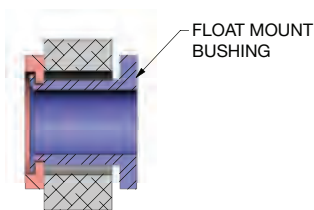
MOUNTING SLOTS

MOUNTING SLOTS							
"Shell Sizes"	"No. of Slots"	Location	"Dia. Ø +/- .005 (.127)" In (mm)	PLATING			
				Yellow Cadmium	"Electroless Nickel"	"Olive Drab"	"Nickel-PTFE/ Duralon™"
B, 2, 3	4	Corners	0.208 (5.28)	12	AG	DG	NG
			0.235 (5.97)	13	AH	DH	NH



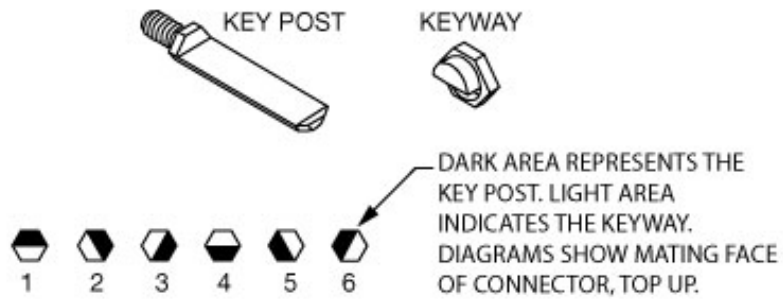
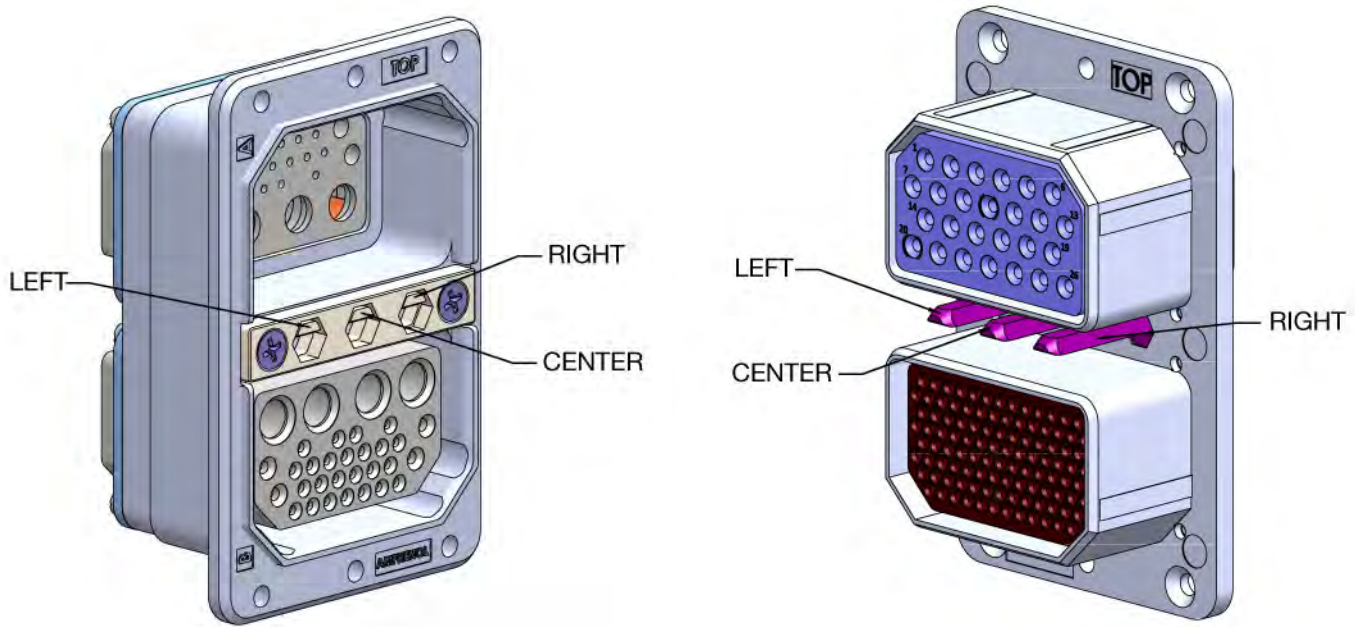
CLINCH NUTS

CLINCH NUTS							
"Shell Sizes"	"No. of Clinch Nuts"	Location	Type	PLATING			
				Yellow Cadmium	"Electroless Nickel"	"Olive Drab"	"Nickel-PTFE/ Duralon™"
ALL	4	Corners	#4-40UNC-3B	01	AB	DB	NB
B, 2, 3	6	ALL		18	AK	DK	NK
4		Corners & Middle		42	AY	DY	NY
	8	All except Middle		43	A4	D3	N3
	10	ALL					
CLINCH NUTS WITH ATTACHING TABS							
ALL	4	Corners	#4-40UNC-3B	17	AJ	DJ	NJ
B, 2, 3	6	ALL		19	AL	DL	NL
4		Corners & Middle		44	A5	D4	N4



FLOAT MOUNT

FLOAT MOUNT - MAX FLOAT IS .031 (.79) LATERAL							
"Shell Sizes"	"No. of Float Mounts"	Location	Comments	PLATING			
				Yellow Cadmium	"Electroless Nickel"	"Olive Drab"	"Nickel-PTFE/ Duralon™"
ALL	4	Corners		23	AP	DP	NP
			FLUSH MOUNT	33	AV	DV	NV
B, 2, 3	6	ALL		29	AT	DT	NT
4		Corners & Middle		45	A6	D5	N5
	10	ALL					
FLOAT MOUNT WITH ATTACHING TABS - MAX FLOAT IS .031 (.79) LATERAL							
ALL	4	Corners		22	AN	DN	NN
B, 2, 3	6	ALL		30	AU	DU	NU
4		Corners & Middle					

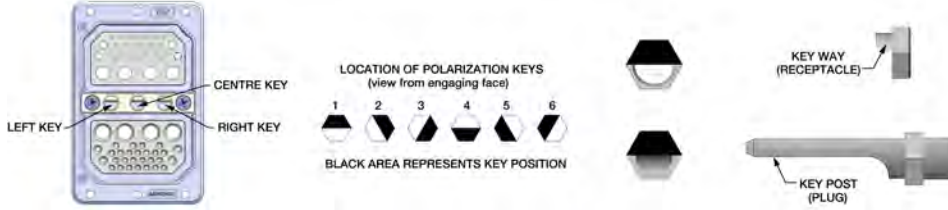


KEYING COMPONENTS			
Key post kit	3 Posts, 3 Nuts (for plug)		AC-040020-P01
Keyway kit	3 Keyways, 1 plate, 2 screws	Size A, B, 2 & 3	AC-040020-K01
Keyway kit	3 Keyways, 1 plate, 2 screws	Size 4	AC-040020-K03

- NOTES: 1. If polarizing position code is (- -), posts and keys will not be installed, but supplied with connector.
 2. If the last two digits are designated 00, it means that polarizing posts are not supplied.
 See pages 18-20 for polarizing positions.

Polarizing Positions

ARINC 404



1.	2.	3.	4.	5.	6.	7.	8.	9.
RoHS Compliance	Connector Series	Shell Style	Class	Insert Layout Designator	Shell Type	Connector Mounting Modifier	Polarizing Position	Modification (Contact, Finish, Material)
E	AR	2	A	-313	3	00	01	FO

Code Part #	Receptacle Shell			Plug Shell		
	Left Post	Center Post	Right Post	Left Post	Center Post	Right Post
00	-	-	-	-	-	-
01	4	4	4	1	1	1
02	4	4	3	2	1	1
03	4	4	2	3	1	1
04	4	4	1	4	1	1
05	4	4	6	5	1	1
06	4	4	5	6	1	1
07	5	4	4	1	1	6
08	5	4	3	2	1	6
09	5	4	2	3	1	6
10	5	4	1	4	1	6
11	5	4	6	5	1	6
12	5	4	5	6	1	6
13	6	4	4	1	1	5
14	6	4	3	2	1	5
15	6	4	2	3	1	5
16	6	4	1	4	1	5
17	6	4	6	5	1	5
18	6	4	5	6	1	5
19	1	4	4	1	1	4
20	1	4	3	2	1	4
21	1	4	2	3	1	4
22	1	4	1	4	1	4
23	1	4	6	5	1	4
24	1	4	5	6	1	4
25	2	4	4	1	1	3
26	2	4	3	2	1	3
27	2	4	2	3	1	3
28	2	4	1	4	1	3
29	2	4	6	5	1	3
30	2	4	5	6	1	3
31	3	4	4	1	1	2
32	3	4	3	2	1	2
33	3	4	2	3	1	2
34	3	4	1	4	1	2
35	3	4	6	5	1	2
36	3	4	5	6	1	2
37	4	3	4	1	2	1
38	4	3	3	2	2	1
39	4	3	2	3	2	1
40	4	3	1	4	2	1
41	4	3	6	5	2	1
42	4	3	5	6	2	1
43	5	3	4	1	2	6
44	5	3	3	2	2	6
45	5	3	2	3	2	6
46	5	3	1	4	2	6
47	5	3	6	5	2	6
48	5	3	5	6	2	6
49	6	3	4	1	2	5

Code Part #	Receptacle Shell			Plug Shell		
	Left Post	Center Post	Right Post	Left Post	Center Post	Right Post
50	6	3	3	2	2	5
51	6	3	2	3	2	5
52	6	3	1	4	2	5
53	6	3	6	5	2	5
54	6	3	5	6	2	5
55	1	3	4	1	2	4
56	1	3	3	2	2	4
57	1	3	2	3	2	4
58	1	3	1	4	2	4
59	1	3	6	5	2	4
60	1	3	5	6	2	4
61	2	3	4	1	2	3
62	2	3	3	2	2	3
63	2	3	2	3	2	3
64	2	3	1	4	2	3
65	2	3	6	5	2	3
66	2	3	5	6	2	3
67	3	3	4	1	2	2
68	3	3	3	2	2	2
69	3	3	2	3	2	2
70	3	3	1	4	2	2
71	3	3	6	5	2	2
72	3	3	5	6	2	2
73	4	2	4	1	3	1
74	4	2	3	2	3	1
75	4	2	2	3	3	1
76	4	2	1	4	3	1
77	4	2	6	5	3	1
78	4	2	5	6	3	1
79	5	2	4	1	3	6
80	5	2	3	2	3	6
81	5	2	2	3	3	6
82	5	2	1	4	3	6
83	5	2	6	5	3	6
84	5	2	5	6	3	6
85	6	2	4	1	3	5
86	6	2	3	2	3	5
87	6	2	2	3	3	5
88	6	2	1	4	3	5
89	6	2	6	5	3	5
90	6	2	5	6	3	5
91	1	2	4	1	3	4
92	1	2	3	2	2	4
93	1	2	2	3	3	4
94	1	2	1	4	3	4
95	1	2	6	5	3	4
96	1	2	5	6	3	4
97	2	2	4	1	3	3
98	2	2	3	2	3	3
99	2	2	2	3	3	3

The following chart lists the polarizing positions of available keying positions.

See how to order procedure of page 3 for incorporation these polarizing positions into part numbers.



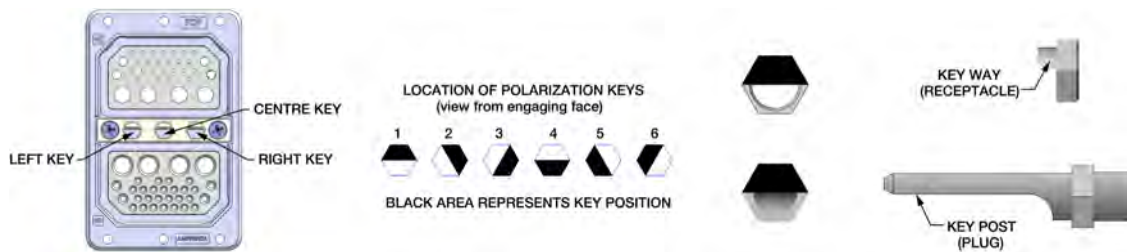
Part Number		Receptacle Shell			Plug Shell		
Code Part #	Refer #	Left Post	Center Post	Right Post	Left Post	Center Post	Right Post
A0	100	2	2	1	4	3	3
A1	101	2	2	6	5	3	3
A2	102	2	2	5	6	3	3
A3	103	3	2	4	1	3	2
A4	104	3	2	3	2	3	2
A5	105	3	2	2	3	3	2
A6	106	3	2	1	4	3	2
A7	107	3	2	6	5	3	2
A8	108	3	2	5	6	3	2
A9	109	4	1	4	1	4	1
B0	110	4	1	3	2	4	1
B1	111	4	1	2	3	4	1
B2	112	4	1	1	4	4	1
B3	113	4	1	6	5	4	1
B4	114	4	1	5	6	4	1
B5	115	5	1	4	1	4	6
B6	116	5	1	3	2	4	6
B7	117	5	1	2	3	4	6
B8	118	5	1	1	4	4	6
B9	119	5	1	6	5	4	6
C0	120	5	1	5	6	4	6
C1	121	6	1	4	1	4	5
C2	122	6	1	3	2	4	5
C3	123	6	1	2	3	4	5
C4	124	6	1	1	4	4	5
C5	125	6	1	6	5	4	5
C6	126	6	1	5	6	4	5
C7	127	1	1	4	1	4	4
C8	128	1	1	3	2	4	4
C9	129	1	1	2	3	4	4
D0	130	1	1	1	4	4	4
D1	131	1	1	6	5	4	4
D2	132	1	1	5	6	4	4
D3	133	2	1	4	1	4	3
D4	134	2	1	3	2	4	3
D5	135	2	1	2	3	4	3
D6	136	2	1	1	4	4	3
D7	137	2	1	6	5	4	3
D8	138	2	1	5	6	4	3
D9	139	3	1	4	1	4	2
E0	140	3	1	3	2	4	2
E1	141	3	1	2	3	4	2
E2	142	3	1	1	4	4	2
E3	143	3	1	6	5	4	2
E4	144	3	1	5	6	4	2
E5	145	4	6	4	1	5	1
E6	146	4	6	3	2	5	1
E7	147	4	6	2	3	5	1
E8	148	4	6	1	4	5	1
E9	149	4	6	6	5	5	1
F0	150	4	6	5	6	5	1



Part Number		Receptacle Shell			Plug Shell		
Code Part #	Refer #	Left Post	Center Post	Right Post	Left Post	Center Post	Right Post
F1	151	5	6	4	1	5	6
F2	152	5	6	3	2	5	6
F3	153	5	6	2	3	5	6
F4	154	5	6	1	4	5	6
F5	155	5	6	6	5	5	6
F6	156	5	6	5	6	5	6
F7	157	6	6	4	1	5	5
F8	158	6	6	3	2	5	5
F9	159	6	6	2	3	5	5
G0	160	6	6	1	4	5	5
G1	161	6	6	6	5	5	5
G2	162	6	6	5	6	5	5
G3	163	1	6	4	1	5	4
G4	164	1	6	3	2	5	4
G5	165	1	6	2	3	5	4
G6	166	1	6	1	4	5	4
G7	167	1	6	6	5	5	4
G8	168	1	6	5	6	5	4
G9	169	2	6	4	1	5	3
H0	170	2	6	3	2	5	3
H1	171	2	6	2	3	5	3
H2	172	2	6	1	4	5	3
H3	173	2	6	6	5	5	3
H4	174	2	6	5	6	5	3
H5	175	3	6	4	1	5	2
H6	176	3	6	3	2	5	2
H7	177	3	6	2	3	5	2
H8	178	3	6	1	4	5	2
H9	179	3	6	6	5	5	2
J0	180	3	6	5	5	5	2
J1	181	4	5	4	1	6	1
J2	182	4	5	3	2	6	1
J3	183	4	5	2	3	6	1
J4	184	4	5	1	4	6	1
J5	185	4	5	6	5	6	1
J6	186	4	5	5	6	6	1
J7	187	5	5	4	1	6	6
J8	188	5	5	3	2	6	6
J9	189	5	5	2	3	6	6
K0	190	5	5	1	4	6	6
K1	191	5	5	6	5	6	6
K2	192	5	5	5	6	6	6
K3	193	6	5	4	1	6	5
K4	194	6	5	3	2	6	5
K5	195	6	5	2	3	6	5
K6	196	6	5	1	4	6	5
K7	197	6	5	6	5	6	5
K8	198	6	5	5	6	6	5
K9	199	1	5	4	1	6	4
L0	200	1	5	3	2	6	4
L1	201	1	5	2	3	6	4

Polarizing Positions

ARINC 404



Part Number		Receptacle Shell			Plug Shell		
Code Part #	Refer #	Left Post	Center Post	Right Post	Left Post	Center Post	Right Post
L2	202	1	5	1	4	6	4
L3	203	1	5	6	5	6	4
L4	204	1	5	5	6	6	4
L5	205	2	5	4	1	6	3
L6	206	2	5	3	2	6	3
L7	207	2	5	2	3	6	3
L8	208	2	5	1	4	6	3
L9	209	2	5	6	5	6	3
M0	210	2	5	5	6	6	3
M1	211	3	5	4	1	6	2
M2	212	3	5	3	2	6	2
M3	213	3	5	2	3	6	2
M4	214	3	5	1	4	6	2
M5	215	3	5	6	5	6	2
M6	216	3	5	5	6	6	2

The following chart lists the polarizing positions of available keying positions.

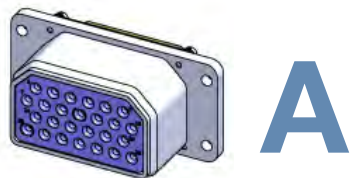
See how to order procedure of page 3 for incorporation these polarizing positions into part numbers.

Single Bay Dimensional Drawings

Shell Style: A, Non-Polarized

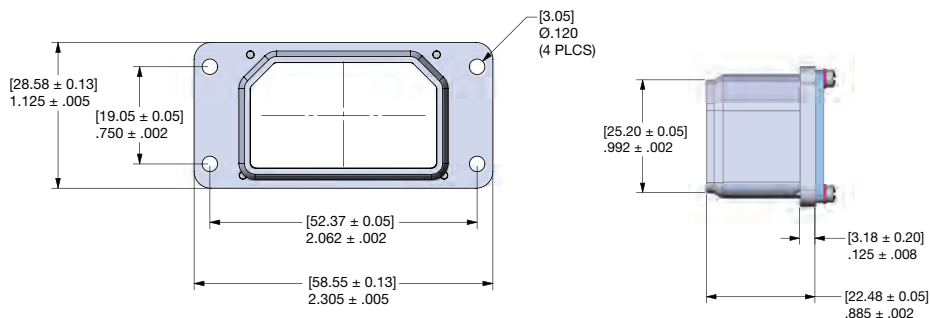
How to Order:
Page 3

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



SHELL STYLE:
(A) NON-POLARIZED

SHELL TYPE:
(3) PLUG



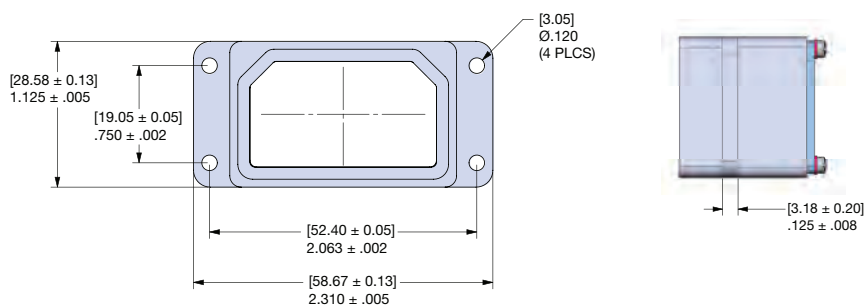
How to Order:
Page 3

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



SHELL STYLE:
(A) NON-POLARIZED

SHELL TYPE:
(4) RECEPTACLE



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

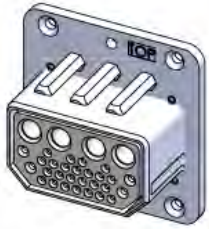
Single Bay Dimensional Drawings

Shell Style: B, Polarized

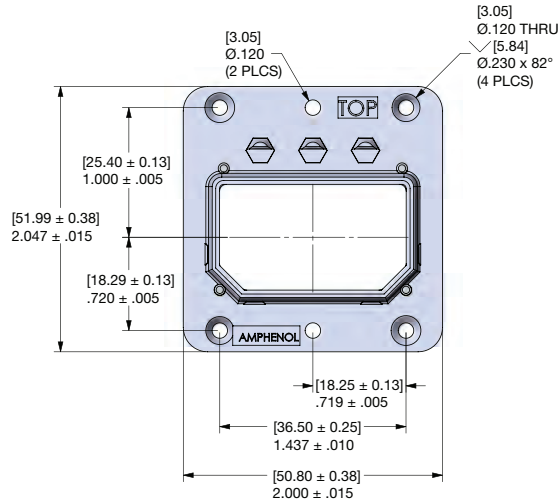
ARINC 404

How to Order:
Page 3

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



B



SHELL STYLE: (B)
SINGLE BAY POLARIZED

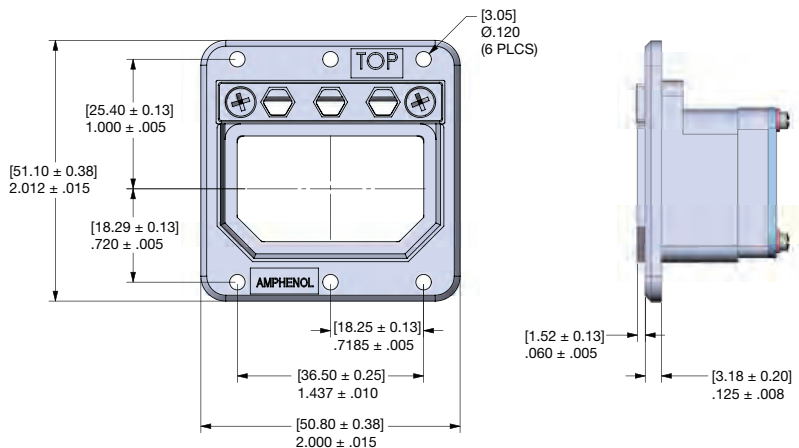
SHELL TYPE: (3)
PLUG

How to Order:
Page 3

RoHS Compliance	2. Connector Series	3. Shell Style	Class	Insert Layout Designator	6. 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

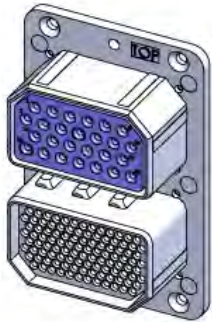
Dimensions are shown in inches, [mm]. All dimensions for reference only.

Double Bay Dimensional Drawings

Shell Style: 2, Polarized

How to Order:
Page 3

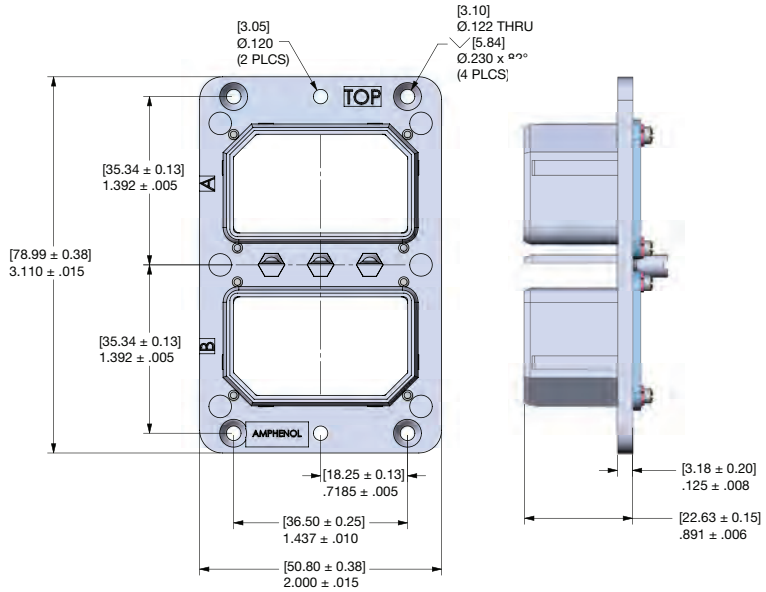
RoHS Compliance	Connector Series	Shell Style	Class	Insert Layout Designator	Shell Type	Connector Mounting Modifier	Polarizing Position	Modification (Contact, Finish, Material)
	AR	2			3			



2

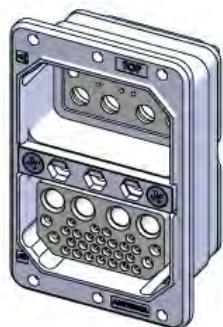
SHELL STYLE: (2)
DOUBLE BAY POLARIZED

SHELL TYPE: (3)
PLUG



How to Order:
Page 3

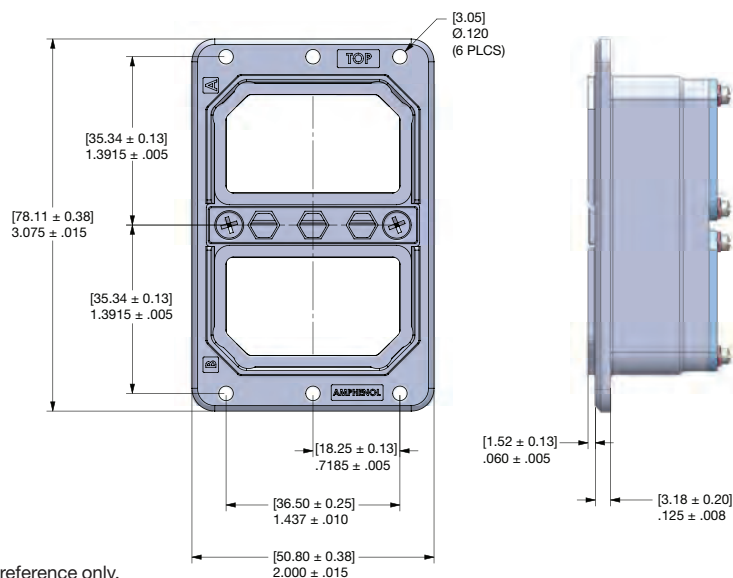
RoHS Compliance	Connector Series	Shell Style	Class	Insert Layout Designator	Shell Type	Connector Mounting Modifier	Polarizing Position	Modification (Contact, Finish, Material)
	AR	2			4			



2

SHELL STYLE: (2)
DOUBLE BAY POLARIZED

SHELL TYPE: (4)
RECEPTACLE



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

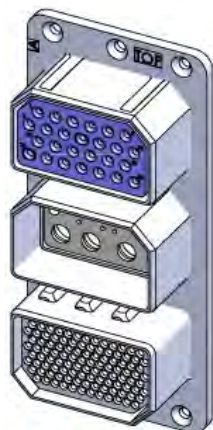
Triple Bay Dimensional Drawings

Shell Style: 3, Polarized

ARINC 404

How to Order:
Page 3

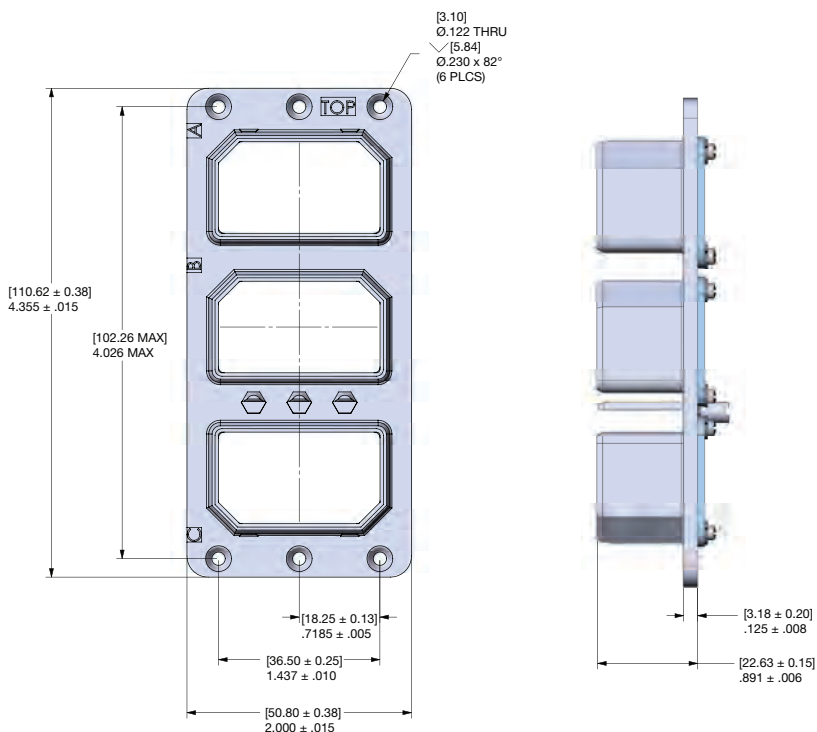
RoHS Compliance	Connector Series	Shell Style	Class	Insert Layout Designator	Shell Type	Connector Mounting Modifier	Polarizing Position	Modification (Contact, Finish, Material)
	AR	3			3			



3

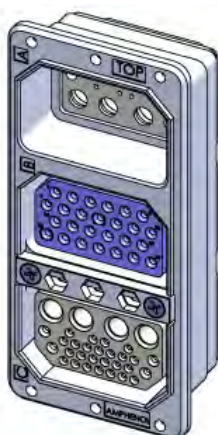
SHELL STYLE: (3)
THREE BAY POLARIZED

SHELL TYPE: (3)
PLUG



How to Order:
Page 3

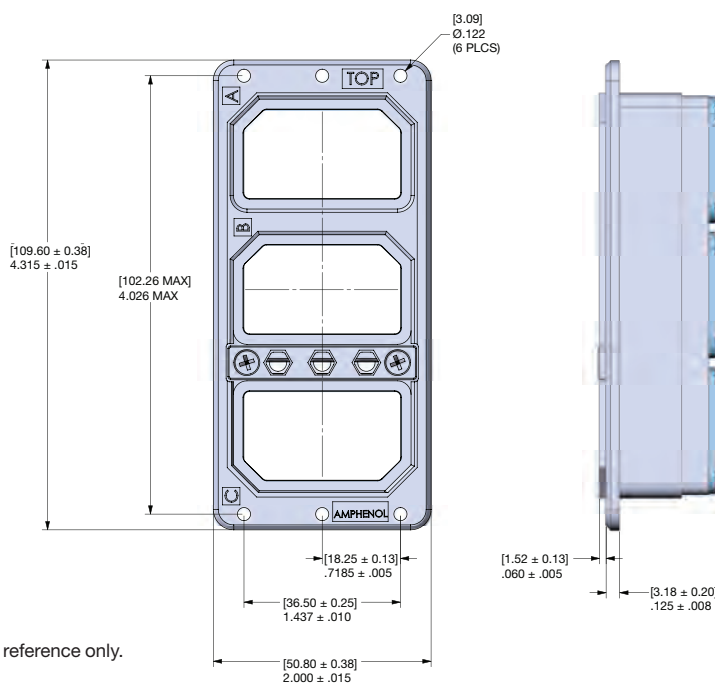
RoHS Compliance	Connector Series	Shell Style	Class	Insert Layout Designator	Shell Type	Connector Mounting Modifier	Polarizing Position	Modification (Contact, Finish, Material)
	AR	3			4			



3

SHELL STYLE: (3)
THREE BAY POLARIZED

SHELL TYPE: (4)
RECEPTACLE



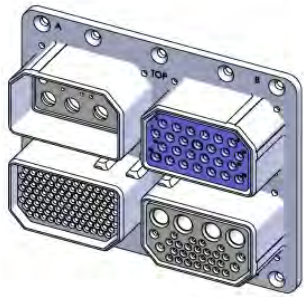
Dimensions are shown in inches, [mm]. All dimensions for reference only.

Four Bay Dimensional Drawings

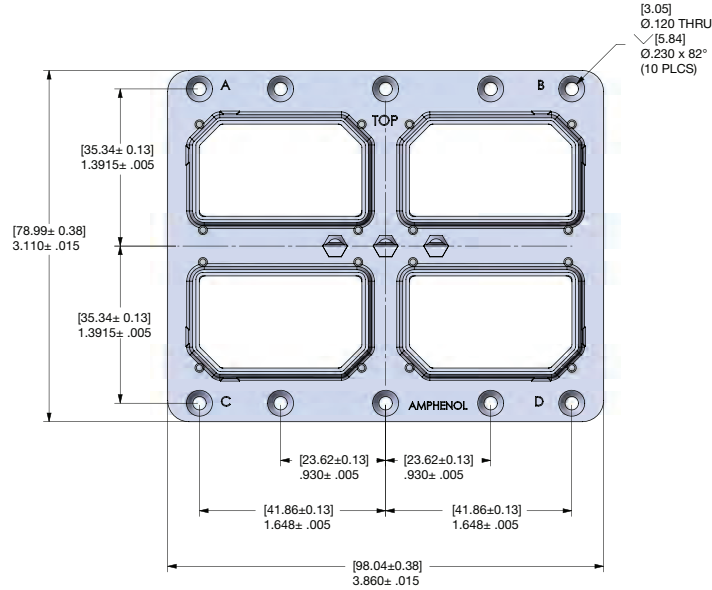
Shell Style: 4, Polarized

How to Order:
Page 3

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



4

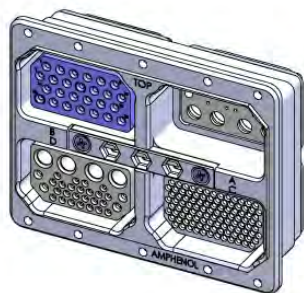


SHELL STYLE: (4)
FOUR BAY POLARIZED

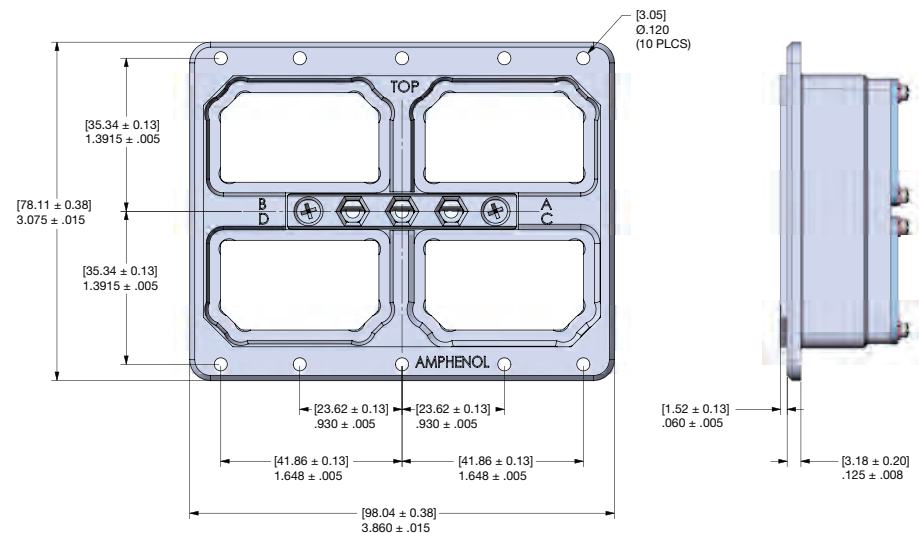
SHELL TYPE: (3)
PLUG

How to Order:
Page 3

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



4



SHELL STYLE: (4)
FOUR BAY POLARIZED

SHELL TYPE: (4)
RECEPTACLE

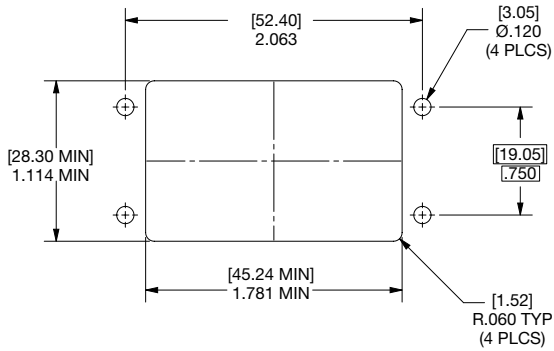
Dimensions are shown in inches, [mm]. All dimensions for reference only.

Panel Cutouts

Size A, B, 2

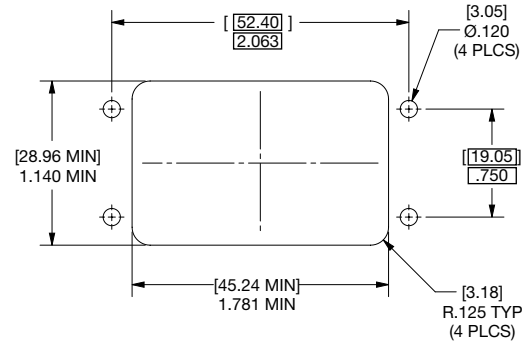
ARINC 404

SIZE A: PLUG

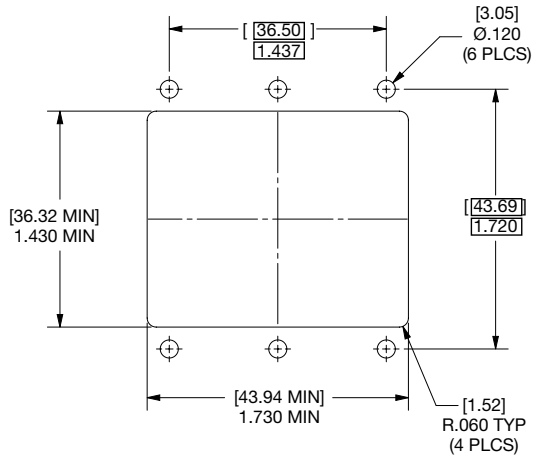


A

SIZE A: RECEPTACLE

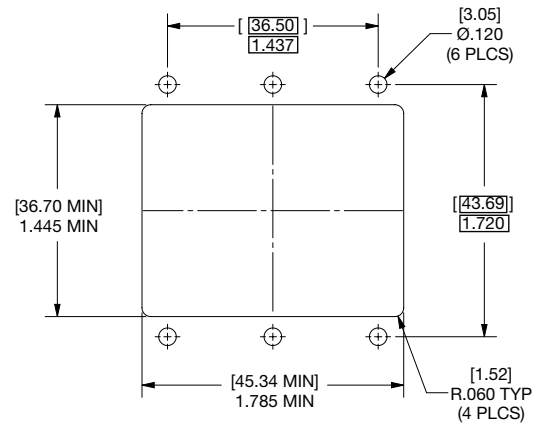


SIZE B: PLUG

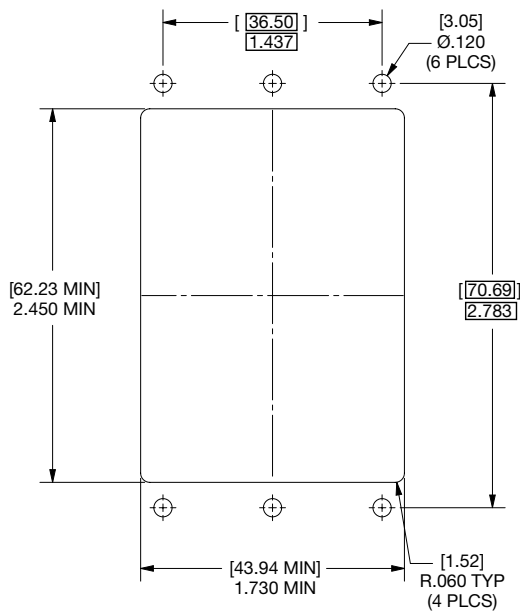


B

SIZE B: RECEPTACLE

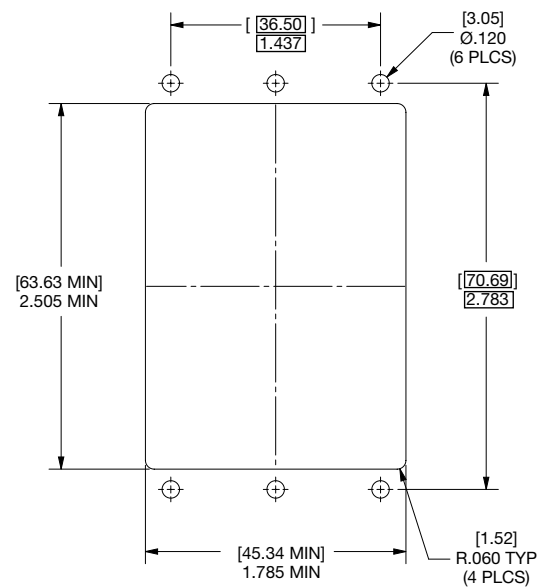


SIZE 2: PLUG



2

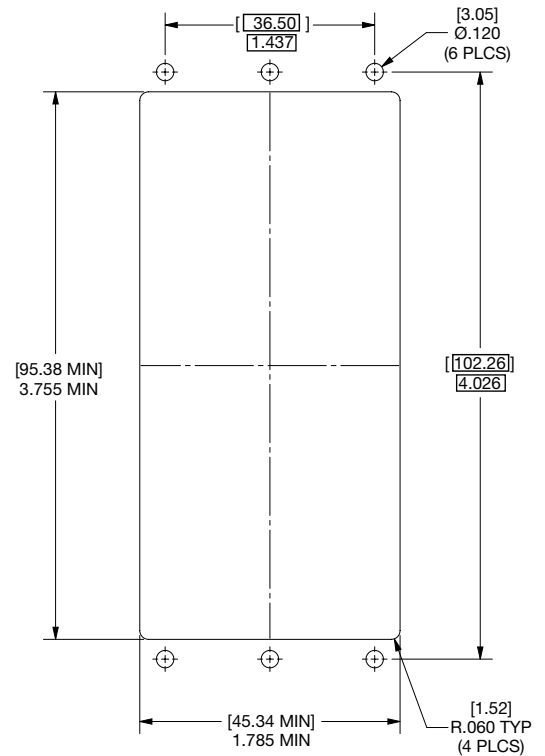
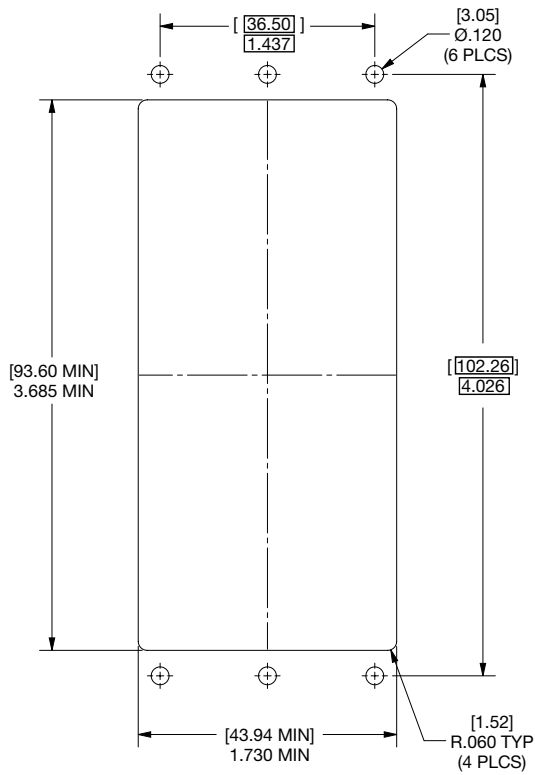
SIZE 2: RECEPTACLE



SIZE 3: PLUG

3

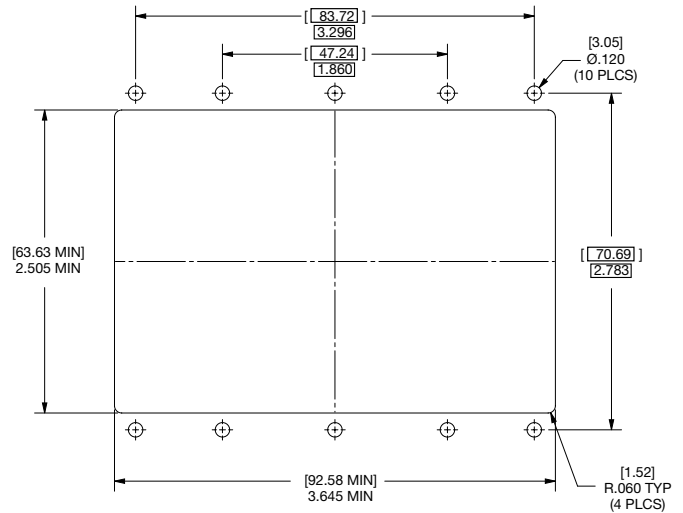
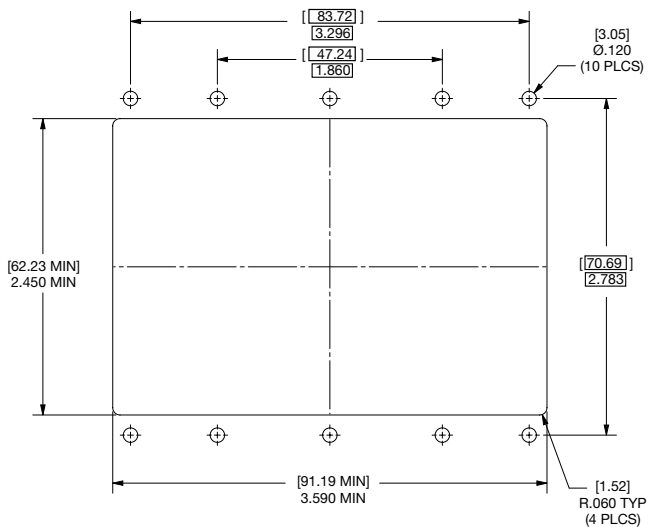
SIZE 3: RECEPTACLE



SIZE 4: PLUG

4

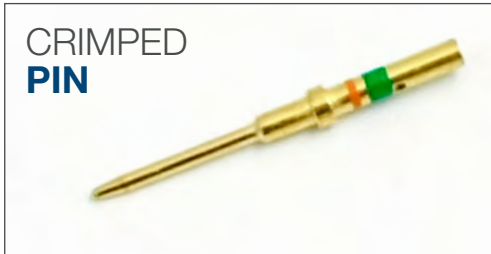
SIZE 4: RECEPTACLE



Contacts Power/Signal, Coax, Dust Covers

ARINC 404

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.



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-1000000-591	AC-1000000-601

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



RF CONTACTS

SIZE	Type	PIN Part No.	SOCKET Part No.	CABLE TYPE	REMOVAL TOOL	"X" = BOOT TYPE
1	COAX	AC-4C01PC05-01	AC-4C01SC05-03	RG-214/U		
5	COAX	AC-4C05PC01-01X	EAC-4C05SC01-01X	RG-58/U	M81969/28-01	
		AC-4C05PC01-02X	EAC-4C05SC01-02X	RG-142, RG-400		
		AC-4C05PC01-03X	EAC-4C05SC01-03X	RG-188/U RG-316/U		
		AC-4C05PC01-05X	EAC-4C05SC01-05X	RG-400		
		AC-4C05PC01-06X	EAC-4C05SC01-06X	RG-141		
		AC-4C05PC01-07X	EAC-4C05SC01-07X	RG-223		
	TWINAX	AC-4T05PC02-01X	AC-4T05SC02-01X	M17/176-00002		
8	QUADRAX	AC-6Q08PC01-01X	AC-6Q08SC01-01X	DRAKA FILECA F4703-3, F4704-4 NEXANS FILOTEX ABS1503KD24/ ET2PF870	"485-952 (MODIFIED M81969/14-12)"	"A = Non-Enviro w/ Alignment Boot
		AC-6Q08PC01-02X	AC-6Q08SC01-02X	TENSOLITE NF24Q100, 24443/03130X-4(LD) 24443/9P025X-4(LD) BOEING S280W502-4 THERMAX MX100Q-24		N = Non-Enviro w/o Alignment Boot (NO BOOT)
		AC-6Q08PC01-03X	AC-6Q08SC01-03X	TENSOLITE 26473/02006X-4(LD) GORE RCN8328		E = Enviro w/ Sealing & Alignment Boot
		AC-6Q08PC01-04X	AC-6Q08SC01-04X	TENSOLITE NF22Q100 NF22Q100-01 DRAKA FILECA 4704-5		T = Enviro for Tight Spacing w/ Sealing & Alignment Boot
		AC-6Q08PC01-05X	AC-6Q08SC01-05X	JSFY02-1		B = Enviro for Sealing to the insert w/o Grommet w/ Sealing Boot"
9	COAX	AC-600002-003	AC-600003-003	RG-58/U	ATC 2281	
		AC-600002-003A	AC-600003-003A	RG-142/U		
		AC-600002-004	AC-600003-004	RG-174/U RG-179/U RG-187/U RG-188/U		
		AC-4C09PC01-01X	AC-4C09SC01-01X	RD-316		
12	TWINAX	AC-4T12PC01-01	AC-4T12PC01-01	M17/176-00002	M81969/28-02	
15	COAX	AC-401060-2	AC-401060-1	RG-179, RG-316	M81969/1-03	
16	COAX	EAC-401060-5	EAC-401060-4	RG-178	M81969/1-03	

ARINC Backshells How-to-Order

ARINC 404

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

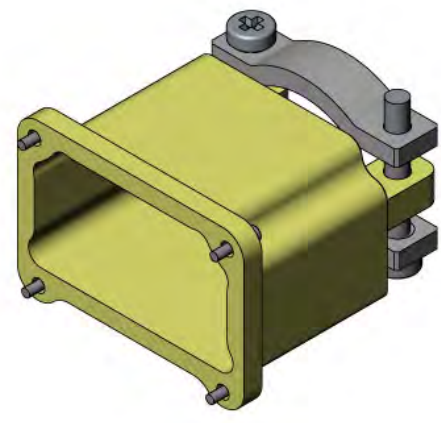
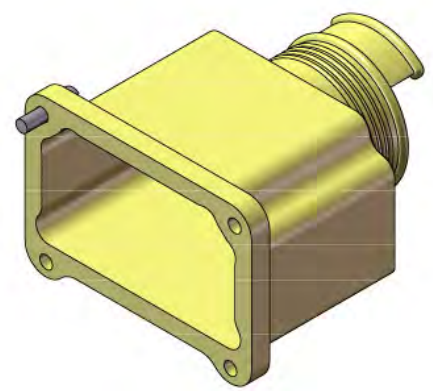
1. CONNECTOR SERIES	
404	Series

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)



FILTER CONNECTOR DESIGN

Filter connectors have been used for over thirty years to provide cost and space effective solutions to EMI problems in a wide range of military and commercial applications including avionics systems, satellites, missiles, communications, control systems and tempest equipment. A low pass filter connector incorporates capacitors and/or ferrite inductors into the connector body. The two capacitor types commonly used in filter connectors for military or avionics applications are planar arrays and tubular capacitors. Each of these capacitor types is an efficient filter at high frequencies (Up to 1GHz) and has been proven to be extremely reliable when suitably assembled into a connector. Both planar and tubular designs feature Amphenol's unique solder-less construction which reduces stress on the ceramic elements and results in superior physical and thermal shock capabilities.

CAPACITOR TYPES

PLANAR ARRAY DESIGN

Amphenol Canada's planar design consists of planar ceramic capacitor arrays with optional ferrites assembled concentrically over the contacts and into the connector shell. The planars are compressed between rubber gaskets and have contact springs in each position which form a stress isolated connection with the contact body. The planars are grounded to the shell via a ground spring.

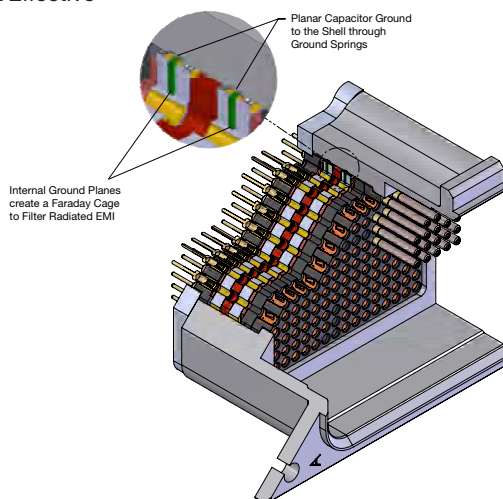
TUBULAR DESIGN

Amphenol Canada's tubular design consists of a ceramic tubular capacitor assembled onto a machined contact. The filter tube is connected to the contact with conductive rubber washers to provide a stress-isolated contact assembly. Grounding is achieved via a ground plate.

WHY USE AN ACC FILTER CONNECTOR

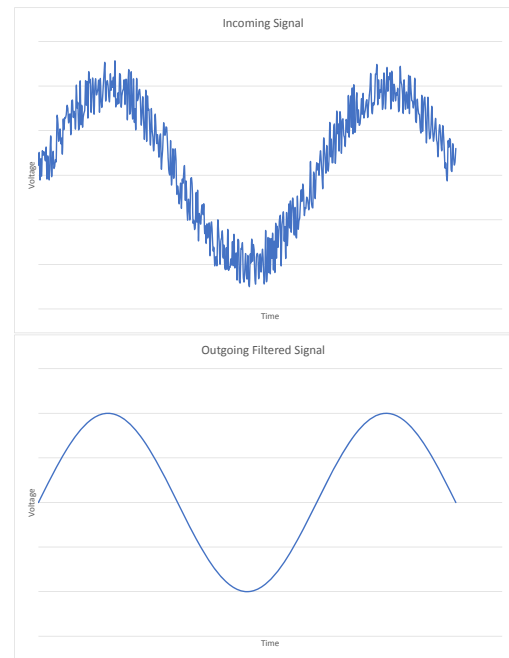
ACC uses a stress-isolated planar array utilizing retention clips instead of solder to electrically connect the planar to the contacts. This provides a more robust and durable design with respect to the typical shock and vibration of aerospace applications. Stress-isolated planar arrays out performs discrete filters by blocking out the radiated EMI as well as filtering out conducted EMI. The ground plate of a tubular design or the internal ground electrodes of a planar design are connected to the shell with minimal aperture size and present an effective barrier to radiated EMI passing through the insert cavity.

- Fewer components = Cost Effective
- Space Saving on the PCB
- Increased Reliability (Solder-less Designs)
- For retrofit applications or late design-in
- Effective against radiated and conducted EMI



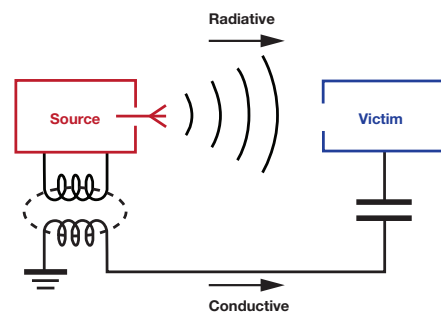
WHAT DOES A FILTER CONNECTOR DO?

A filtered connector filters out noise and cleans a signal through a low pass filter. They allow low frequency signals to pass through, but filter out the higher frequency signals noise/EMI.



ELECTROMAGNET INTERFERENCE (EMI) TYPES: CONDUCTED & RADIATED

Once in a system, EMI can distort signals and can interfere with system functionality. EMI can get into the system through conduction or radiation. Conducted EMI travels through the physically connected lines caused by other electronic devices in the system. Radiated EMI travels through air waves and can affect physically isolated lines.



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 ±15% from -55°C to +125°C. The typical low capacitance (<500pF) dielectric (C0G) has a negligible temperature coefficients of ±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.

CAPACITOR FILTER (C)

- 20 dB per Frequency Decade Typical Increase in Attenuation Slope
- Used mainly for High Frequency Noise
- With High Source and Load Impedance

L FILTER (L-C)

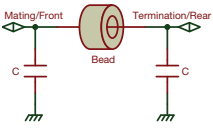
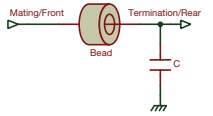
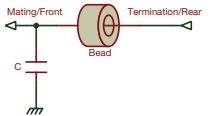
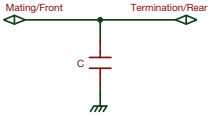
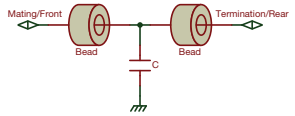
- 20 dB per Frequency Decade Typical Increase in Attenuation Slope
- Used where Source and Load Impedance are Dissimilar
- Ferrite Side of Filter is Connected to Lower Impedance Side of Circuit
- Capacitor Side to Higher Impedance Side

PI FILTER (C-L-C)

- 40 dB per Frequency Decade Typical Increase in Attenuation Slope
- Used where Applications Contain Relatively Higher Source and Load Impedance

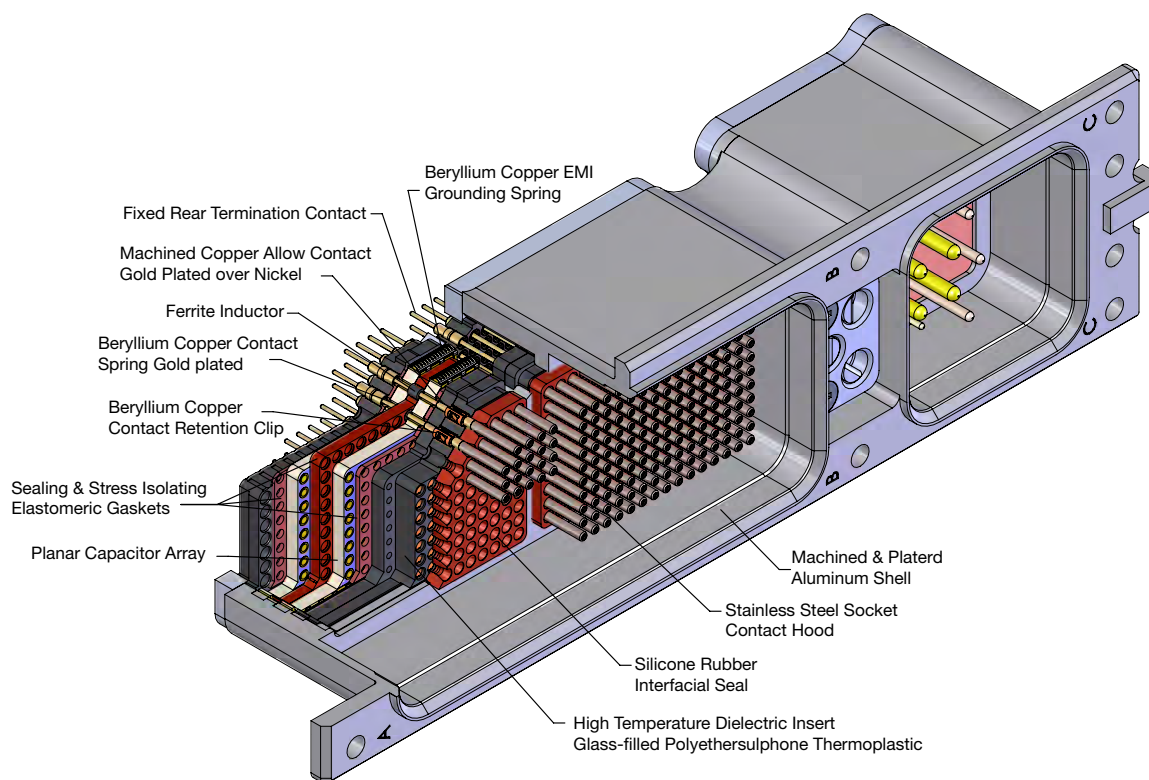
T FILTER (L-C-L)

- 20 dB per Frequency Decade Typical Increase in Attenuation Slope
- Used where Applications Contain Low Source and Load Impedance
- Switch-mode Power Supplies are Typical Applications

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		High source and high load impedance
T		Low source and low load impedance

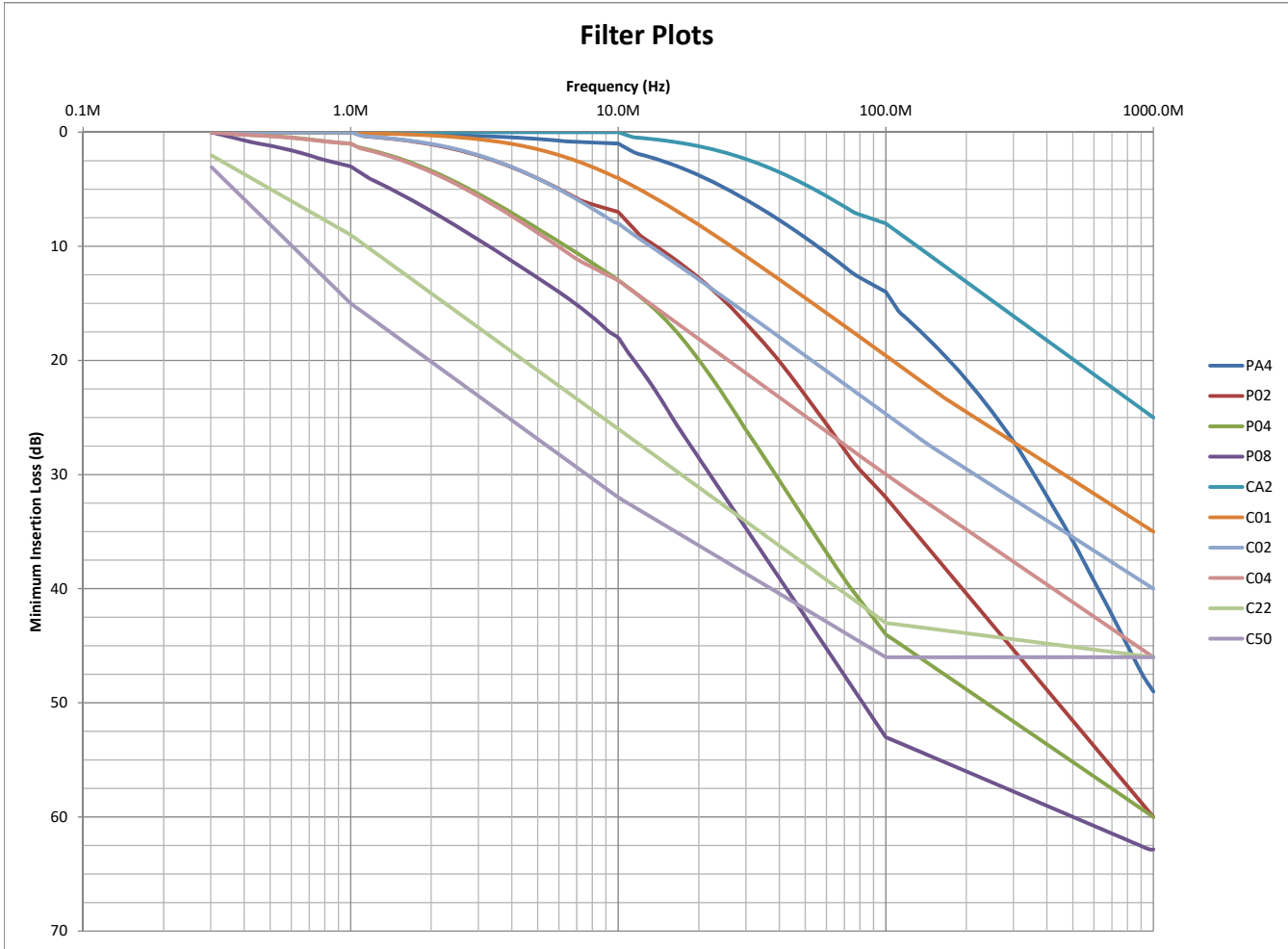
High source or load impedance >100ohms

Low source or load impedance >10ohms



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
	10 MHz	1	7	13	18	-	4	8	13	26
	100 MHz	14	32	44	53	8	20	25	30	43
	1 GHz	49	60	60	63	25	35	40	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

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	