

# Amphenol

164-SERIES

WATERPROOF AUDIO CONNECTORS

AC16403 0118





# Introduction

Amphenol 164 series connectors are water resistant, five & six pin contact electrical connectors for use in low voltage audio frequency circuits & applications. They employ three-point bayonet coupling for quick disconnect & self wipe contact.

These connectors are extensively used in military communication equipments, where high reliability is paramount & severe environmental conditions are encountered.

Amphenol 164 series connectors are qualified to MIL specification MIL-DTL-55116. They are intermatable with any other manufacturers product which is designed as per MIL-DTL-55116.

	Page
Introduction -----	1
Specifications, Material & Finishes -----	2
QPL Approval Letter -----	3-4
Five & Six Pin Audio Plug Connector Crimp Sleeve Terminal (U-229-Type) Products -----	5
Five & Six Pin Audio Plug Connector Solder Cup Terminal (U-229S-Type) Products -----	6
Five & Six Pin Audio Plug Connector Crimp Sleeve Terminal (U-182-Type) Products -----	7
Five & Six Pin Audio Plug Connector Solder Cup Terminal (U-182S-Type) Products -----	8
Five & Six Pin Audio Receptacle Panel Mount Connector-Solder (U-183/U Type & U-283/U Type) Products -----	9
Five & Six Pin Audio Receptacle Connector Crimp Sleeve Terminal (U-228/U Type & U-328/U Type) Products -----	10
Five & Six Pin Audio Receptacle Connector Solder Cup Terminal (U-228/U Type & U-328/U Solder Type) Products -----	11
List Of Part Numbers -----	12
Ordering Information -----	13
Special Products -----	15-27

## Electrical

Operating Current	500 m A per contact
Operating Voltage	60V max.
Contact Resistance	0.050 ohms max.
Insulation Resistance	1000 M ohm @ 100 V DC
Dielectric Strength	500V rms

## Mechanical

Number of Contacts	5 or 6
Air Pressure	2.5 PSI
Durability	3000 cycles, mate & unmate.
Immersion	48 hrs. At 6ft.

## Environmental

Operating Temperature	-55° C to +85° C.
-----------------------	-------------------

## Material & Finishes

Part	Material	Finish
Shell & Nut	Stainless Steel	Sand Blasted
Insulator	Diallyphthalate as per ASTM D5948 Type SDG-F	-
Contact	Copper Alloy -Brass	0.75µm Gold over Nickel





Defence Logistics Agency  
 Defence Supply Centre, Columbus  
 Post Office Box 3990  
 Columbus, OH 43218-3990

MAR 18 2009

DSCC-VQP-09-017606 (Mr. Funk/614-692-6608/jf)  
 Subject: Qualification for MIL-DTL-55116  
 DSCC Test Report Number 55116-2285-08  
 FSC 5935, Preparing Activity:DLA-CC

Amphenol Interconnect India Pvt. Ltd.  
 105, Bhosari Industrial Estate  
 Pune-411026 (India)

We have received Amphenol Interconnect India's test report and supporting data dated February 18, 2009. Qualification of your products is granted under the Military Specification Sheets listed below as a result of providing exhibit samples that demonstrate your capability to manufacture these products to Military Specification MIL-DTL-55116.

Supplier: Amphenol Interconnect India Pvt. Ltd.	Supplier: Amphenol Interconnect India Pvt. Ltd.
Government Designation: M55116/1-( )	Government Designation: M55116/2-( )
Manufacturer's Designation: 164-229-( )	Manufacturer's Designation: 164-229-6-( )
Cable Accommodation: 1, 2, 3, 4, 5	Cable Accommodation: 1, 2, 3, 4, 5
Test or Qualification Reference: 55116-2285-08	Test or Qualification Reference: 55116-2285-08
Supplier: Amphenol Interconnect India Pvt. Ltd.	Supplier: Amphenol Interconnect India Pvt. Ltd.
Government Designation: M55116/3-( )	Government Designation: M55116/4-( )
Manufacturer's Designation: 164-229-S-( )	Manufacturer's Designation: 164-229-6S-( )
Cable Accommodation: 1, 2, 3, 4, 5	Cable Accommodation: 1, 2, 3, 4, 5
Test or Qualification Reference: 55116-2285-08	Test or Qualification Reference: 55116-2285-08
Supplier: Amphenol Interconnect India Pvt. Ltd.	Supplier: Amphenol Interconnect India Pvt. Ltd.
Government Designation: M55116/5-( )	Government Designation: M55116/6-( )
Manufacturer's Designation: 164-182-( )	Manufacturer's Designation: 164-182-6-( )
Cable Accommodation: 1, 2, 3, 4, 5	Cable Accommodation: 1, 2, 3, 4, 5
Test or Qualification Reference: 55116-2285-08	Test or Qualification Reference: 55116-2285-08
Supplier: Amphenol Interconnect India Pvt. Ltd.	Supplier: Amphenol Interconnect India Pvt. Ltd.
Government Designation: M55116/7-( )	Government Designation: M55116/8-( )
Manufacturer's Designation: 164-182-S( )	Manufacturer's Designation: 164-182-6S-( )
Cable Accommodation: 1, 2, 3, 4, 5	Cable Accommodation: 1, 2, 3, 4, 5
Test or Qualification Reference: 55116-2285-08	Test or Qualification Reference: 55116-2285-08



Supplier: Amphenol Interconnect India Pvt. Ltd.	Supplier: Amphenol Interconnect India Pvt. Ltd.
Government Designation: M55116/9-( )	Government Designation: M55116/10-( )
Manufacturer's Designation: 164-183-( )	Manufacturer's Designation: 164-183-6-( )
Cable Accommodation: 0	Cable Accommodation: 0
Test or Qualification Reference: 55116-2285-08	Test or Qualification Reference: 55116-2285-08
Supplier: Amphenol Interconnect India Pvt. Ltd.	Supplier: Amphenol Interconnect India Pvt. Ltd.
Government Designation: M55116/11-( )	Government Designation: M55116/12-( )
Manufacturer's Designation: 164-228-( )	Manufacturer's Designation: 164-228-6-( )
Cable Accommodation: 1, 2, 3, 4, 5	Cable Accommodation: 1, 2, 3, 4, 5
Test or Qualification Reference: 55116-2285-08	Test or Qualification Reference: 55116-2285-08
Supplier: Amphenol Interconnect India Pvt. Ltd.	Supplier: Amphenol Interconnect India Pvt. Ltd.
Government Designation: M55116/13-( )	Government Designation: M55116/14-( )
Manufacturer's Designation: 164-228-S-( )	Manufacturer's Designation: 164-228-6S-( )
Cable Accommodation: 1, 2, 3, 4, 5	Cable Accommodation: 1, 2, 3, 4, 5
Test or Qualification Reference: 55116-2285-08	Test or Qualification Reference: 55116-2285-08

A detailed listing of the connector type under the Military Specification Sheet will be listed on the Qualified Products List (QPL) 55116. This qualification is subject to the conditions stated in DoD 4120.24-M and SD-6.

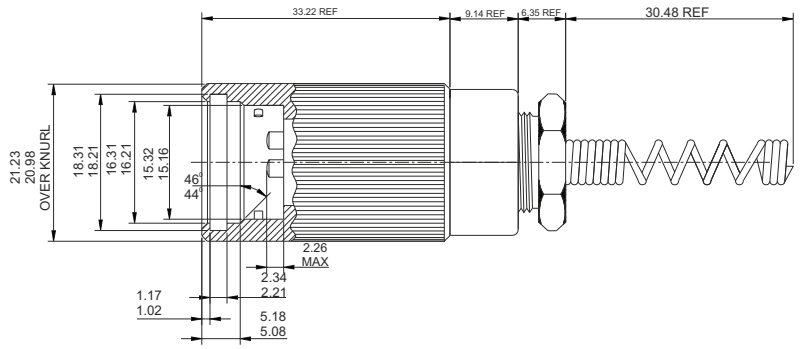
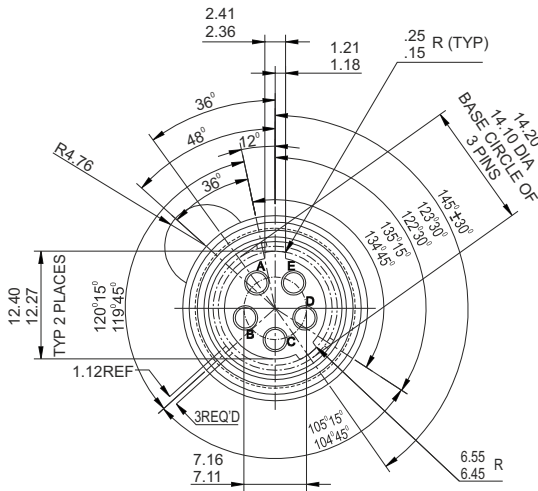
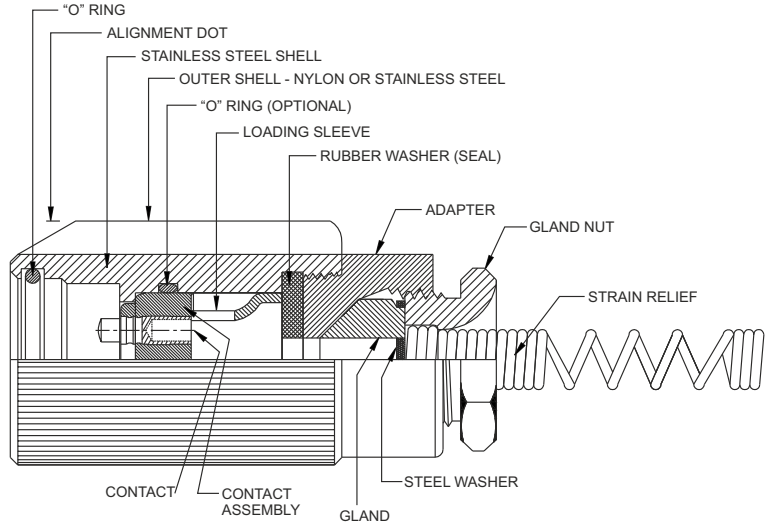
Because we are held responsible for the accuracy and currency of this QPL, please let us know if your company discontinues production of these products.

If you have any questions concerning this letter, please contact Mr. Funk at 614-692-6608 or email [Jeremy.Funk@dla.mil](mailto:Jeremy.Funk@dla.mil).

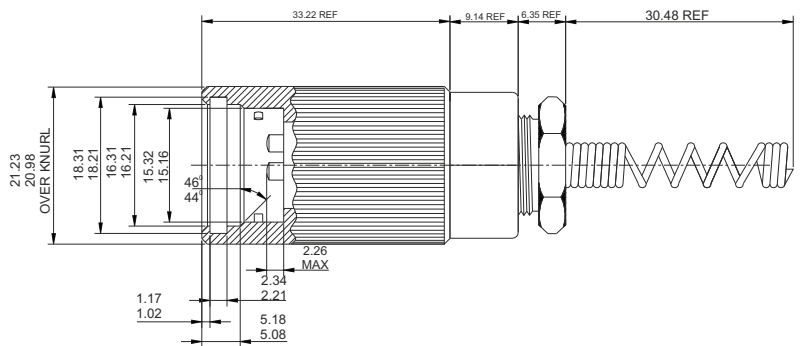
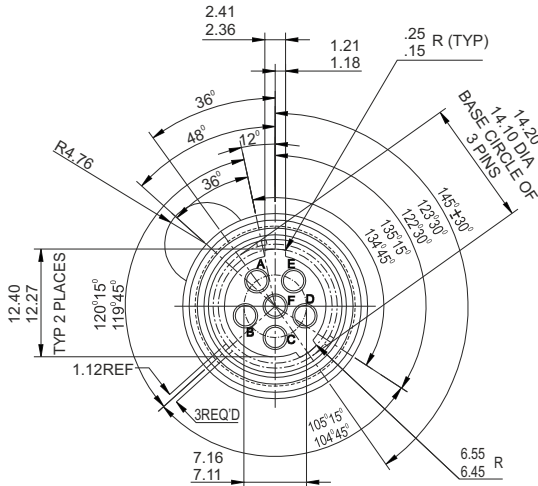
Sincerely,



JOSEPH GEMPERLINE  
Chief  
Sourcing and Qualifications Division



**M55116/1-X**

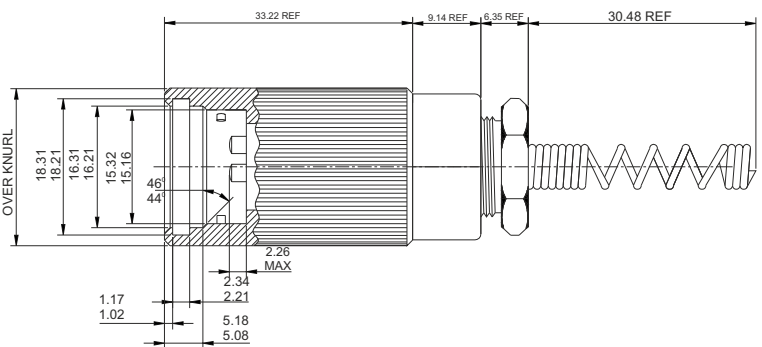
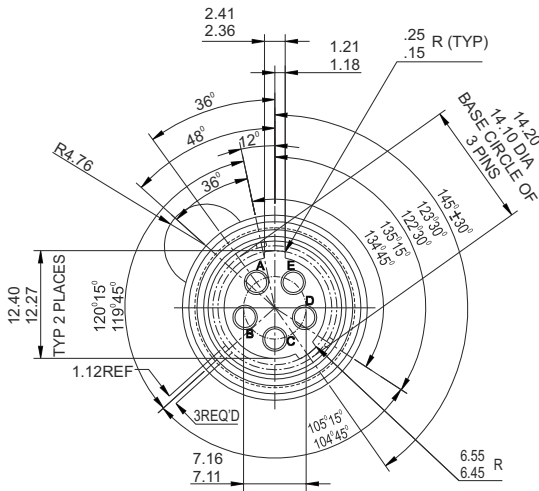
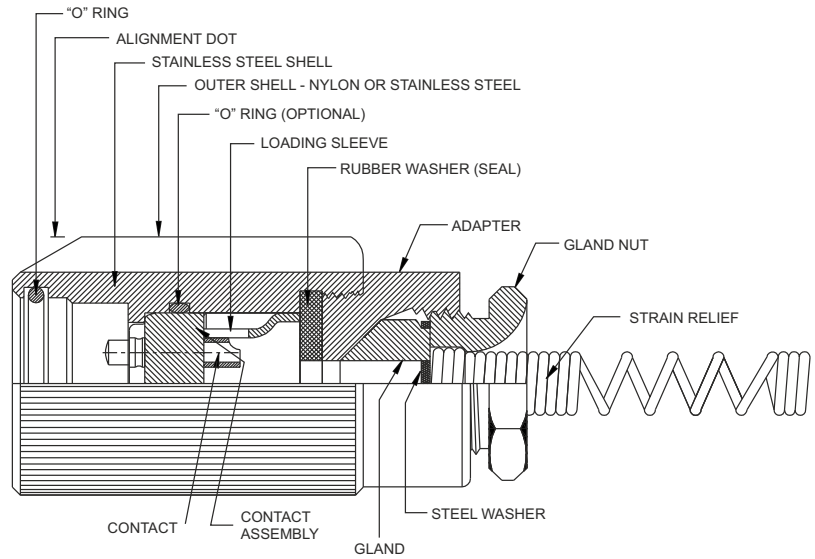


**M55116/2-X**

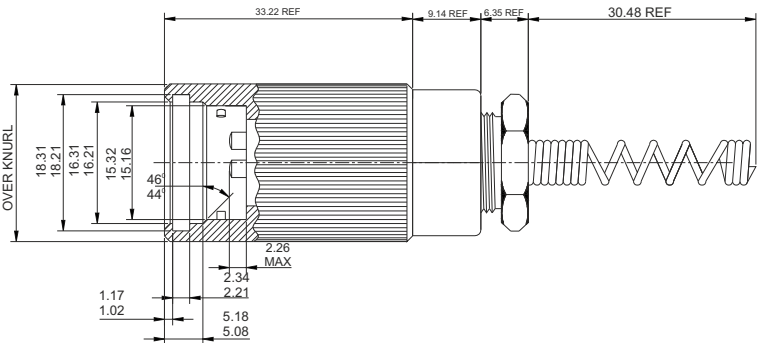
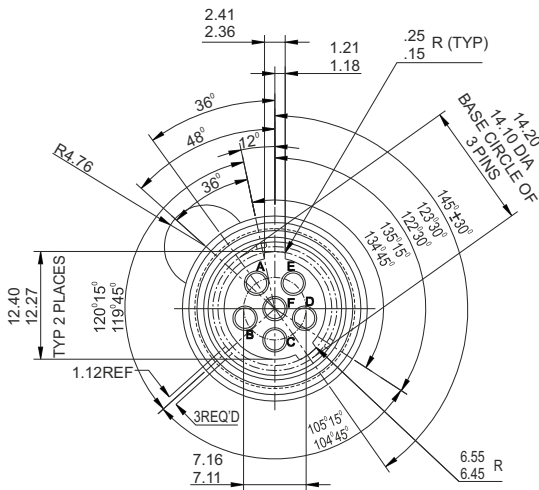
Sr No.	Description	MIL Designation	Amphenol Designation
1	5 Pin Audio plug connector with crimp sleeve terminal & wire strain relief	M55116/1-X	164-229-X
2	6 Pin Audio plug connector with crimp sleeve terminal & wire strain relief	M55116/2-X	164-229-6-X

Dash no-X	Cable diameter
-0	N/A
-1	4.19 ± 0.25
-2	5.79 ± 0.25
-3	6.35 ± 0.25
-4	7.36 ± 0.25
-5	8.12 ± 0.25

X Stands for the Cable size accommodation, is identified by a dash number as shown in above table. This number indicates the outside diameter of the cable that the connector will accommodate.



**M55116/3-X**



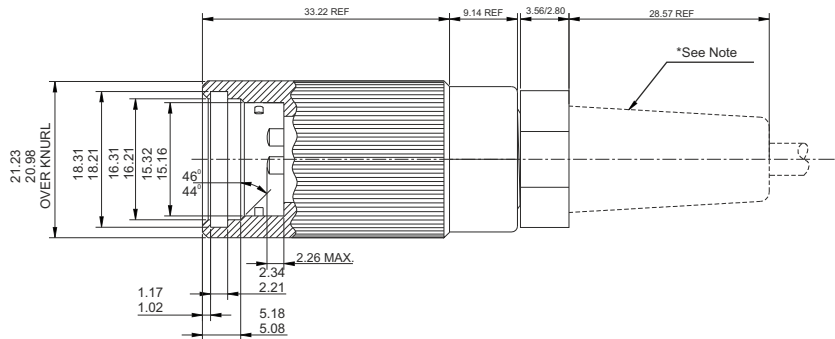
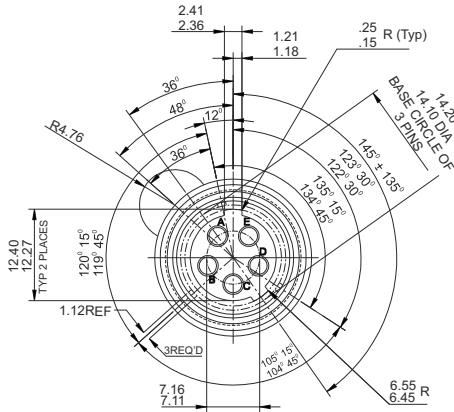
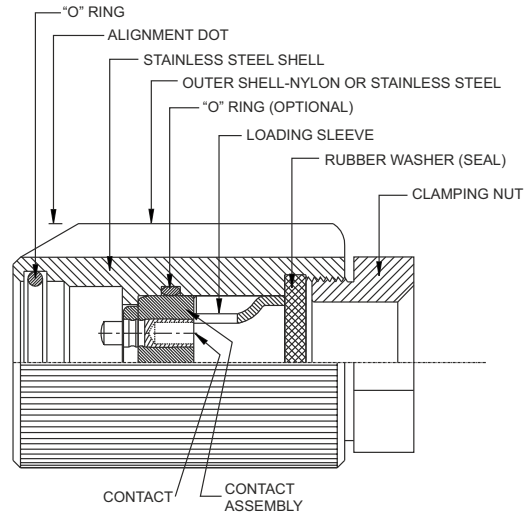
**M55116/4-X**

Sr No.	Description	MIL Designation	Amphenol Designation
1	5 Pin Audio plug connector with Solder Cup Terminal & wire strain relief	M55116/3-X	164-229-S-X
2	6 Pin Audio plug connector with Solder Cup Terminal & wire strain relief	M55116/4-X	164-229-6S-X

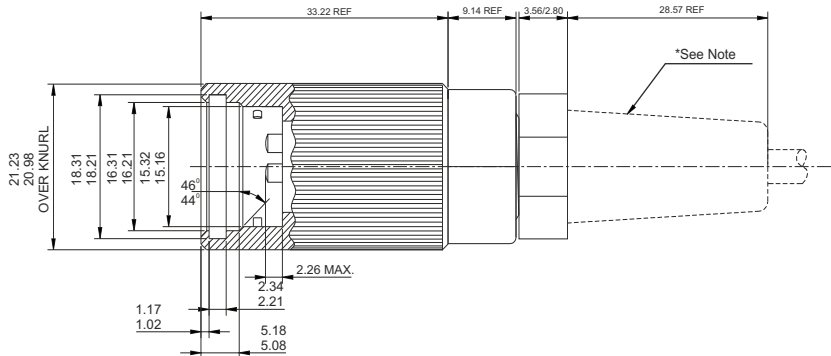
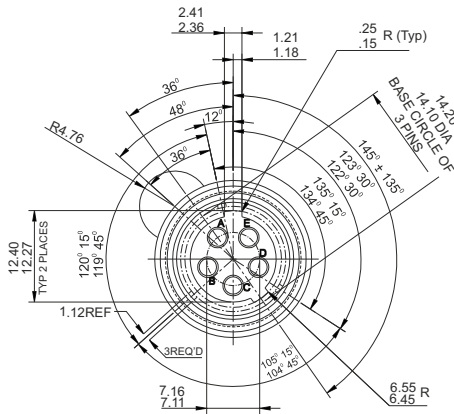
Dash no-X	Cable diameter
-0	N/A
-1	4.19 ± 0.25
-2	5.79 ± 0.25
-3	6.35 ± 0.25
-4	7.36 ± 0.25
-5	8.12 ± 0.25

X Stands for the Cable size accommodation, is identified by a dash number as shown in above table. This number indicates the outside diameter of the cable that the connector will accommodate.





**M55116/5-X**



**M55116/6-X**

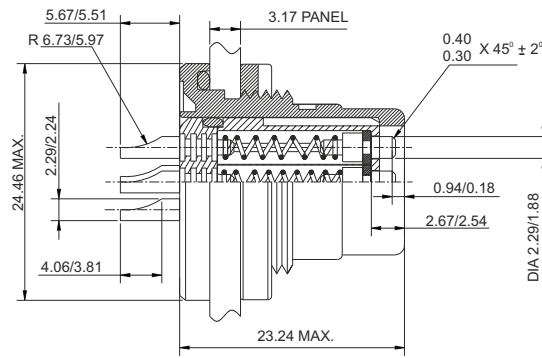
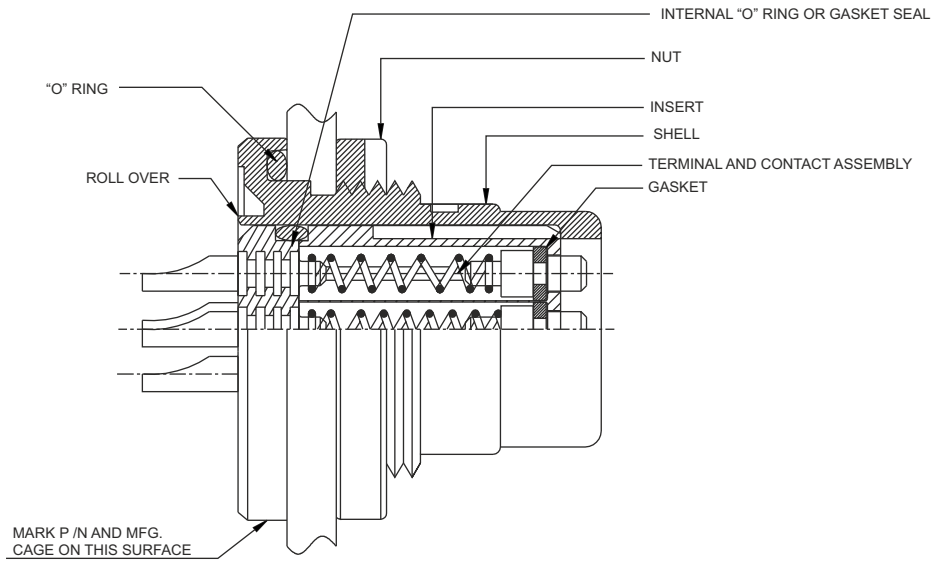
Sr No.	Description	MIL Designation	Amphenol Designation
1	5 Pin Audio plug connector with crimp sleeve terminal & molded strain relief (Not supplied)	M55116/5-X	164-182-X
2	6 Pin Audio plug connector with crimp sleeve terminal & molded strain relief (Not supplied)	M55116/6-X	164-182-6-X

Dash no-X	Cable diameter
-0	N/A
-1	4.19 ± 0.25
-2	5.79 ± 0.25
-3	6.35 ± 0.25
-4	7.36 ± 0.25
-5	8.12 ± 0.25

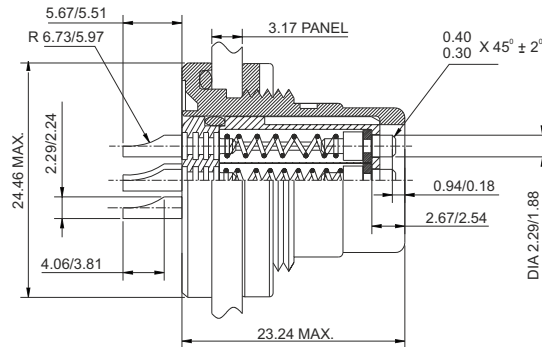
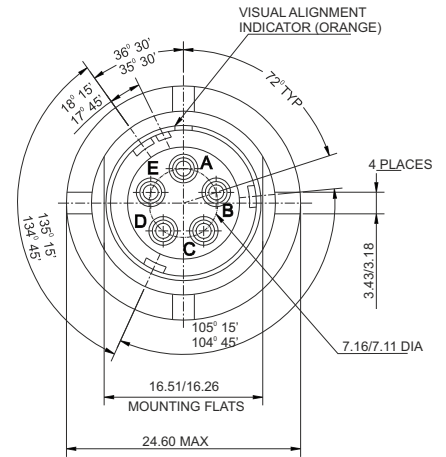
X Stands for the Cable size accommodation, is identified by a dash number as shown in above table. This number indicates the outside diameter of the cable that the connector will accommodate.

\*Nylon molded strain relief on request

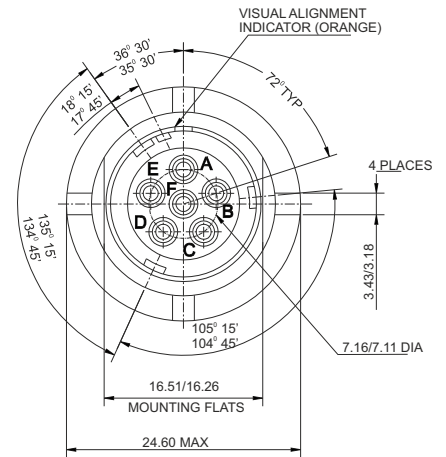




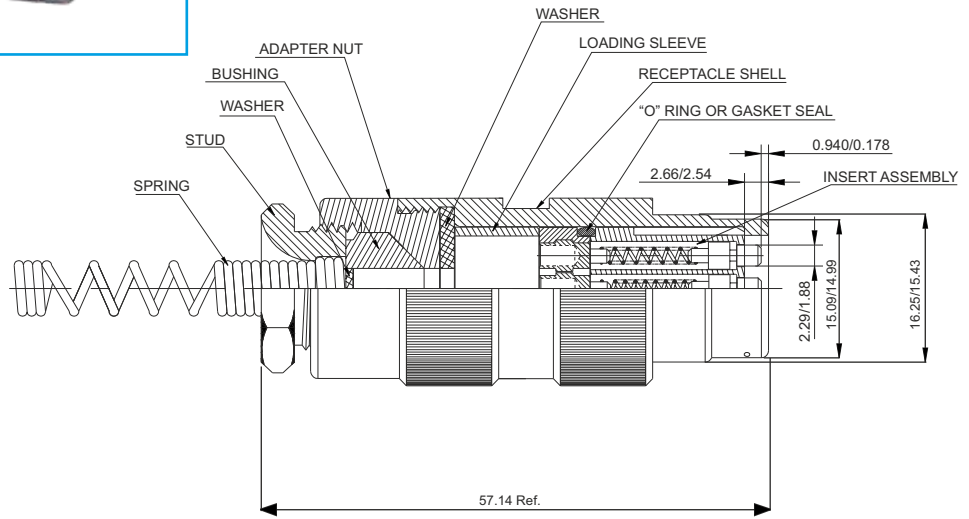
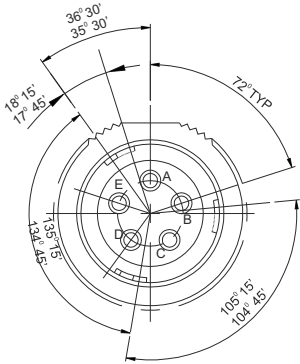
M55116/9



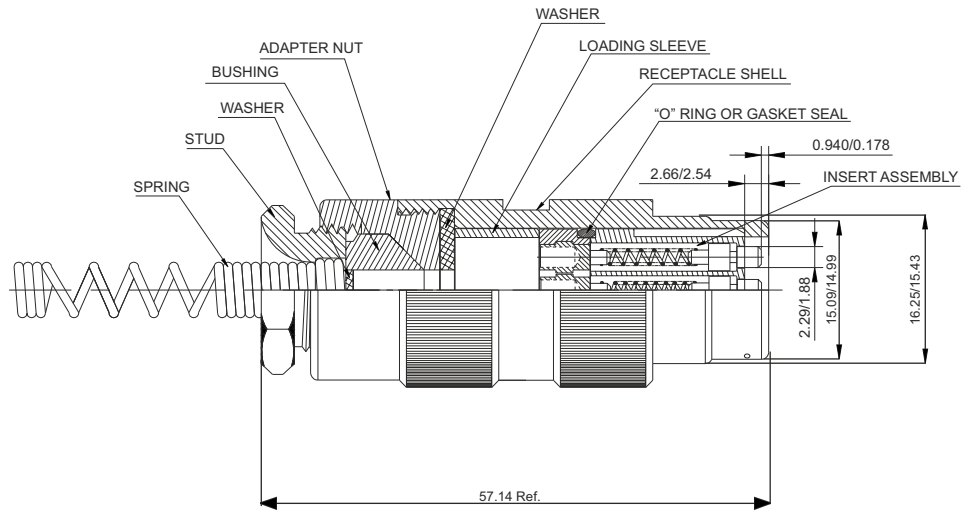
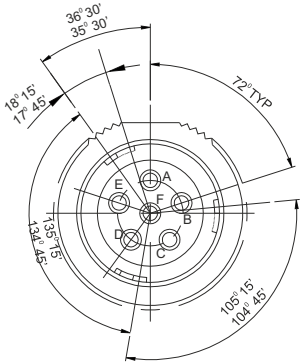
M55116/10



Sr No.	Description	MIL Designation	Amphenol Designation
1	5 Pin Audio Receptacle with solder cup terminal, Panel Mount	M55116/9	164-183
2	6 Pin Audio Receptacle with solder cup terminal, Panel Mount	M55116/10	164-183-6



M55116/11-X



M55116/12-X

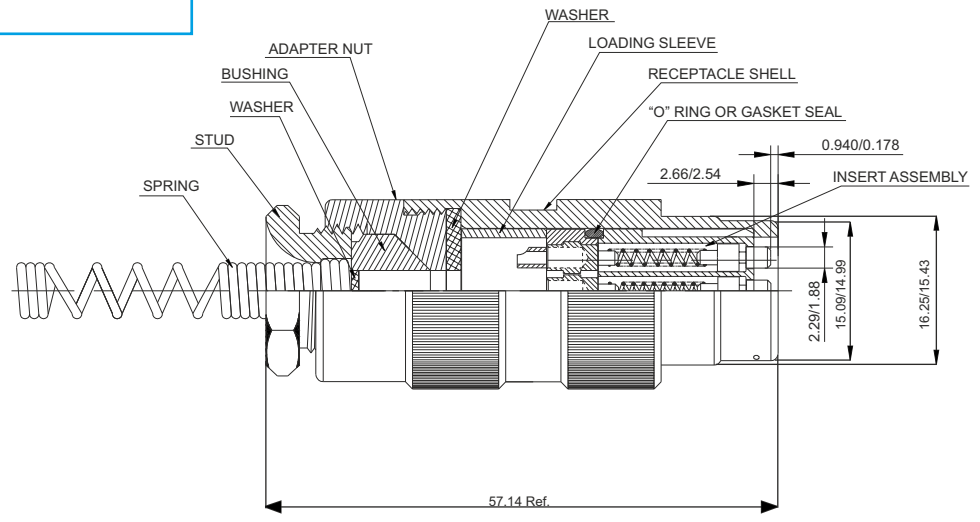
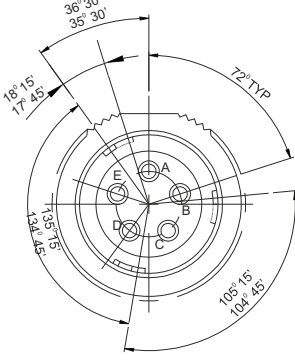
Sr No.	Description	MIL Designation	Amphenol Designation
1	5 Pin Audio Receptacle with Crimp sleeve terminal & wire strain relief	M55116/11-X	164-228-X
2	6 Pin Audio Receptacle with Crimp sleeve terminal & wire strain relief	M55116/12-X	164-228-6-X

Dash no-X	Cable diameter
-0	N/A
-1	4.19 ± 0.25
-2	5.79 ± 0.25
-3	6.35 ± 0.25
-4	7.36 ± 0.25
-5	8.12 ± 0.25

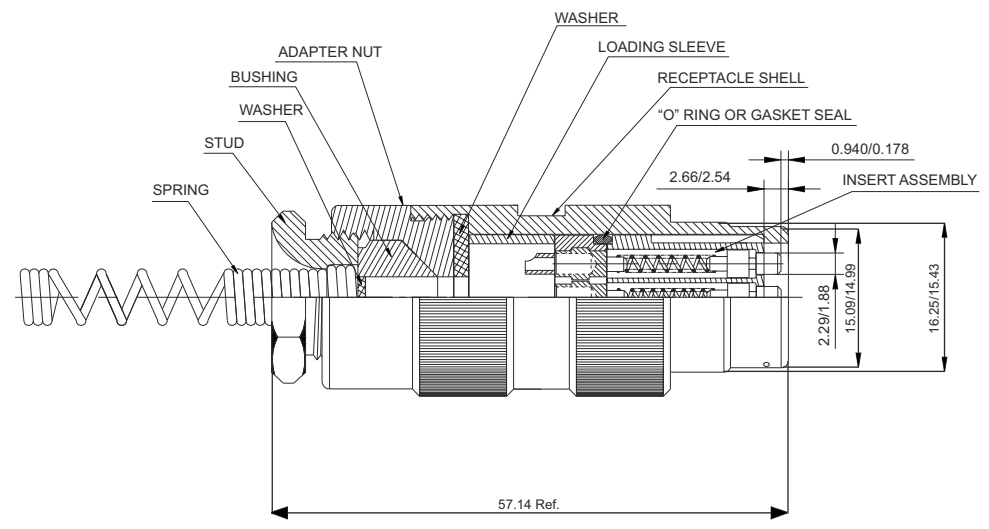
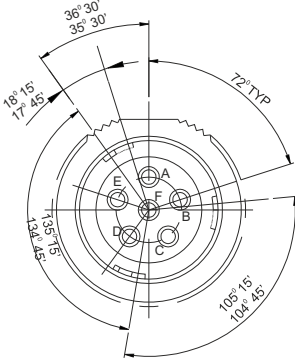
X Stands for the Cable size accommodation, is identified by a dash number as shown in above table. This number indicates the outside diameter of the cable that the connector will accommodate.

# F

## ive & Six Pin Audio Receptacle Connector Solder Cup Terminal



M55116/13-X



M55116/14-X

Sr No.	Description	MIL Designation	Amphenol Designation
1	5 Pin Audio Receptacle with solder cup terminal & wire strain relief	M55116/13-X	164-228-S-X
2	6 Pin Audio Receptacle with solder cup terminal & wire strain relief	M55116/14-X	164-228-6S-X

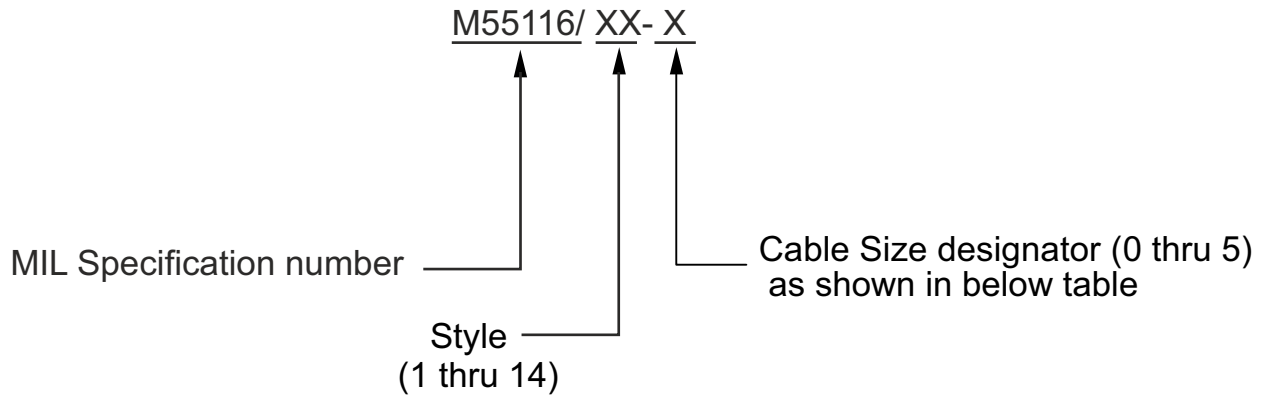
Dash no-X	Cable diameter
-0	N/A
-1	4.19 ± 0.25
-2	5.79 ± 0.25
-3	6.35 ± 0.25
-4	7.36 ± 0.25
-5	8.12 ± 0.25

X Stands for the Cable size accommodation, is identified by a dash number as shown in above table. This number indicates the outside diameter of the cable that the connector will accommodate.



# List of Qualified Part Numbers

Sr. No.	MIL Specification Designation	Amphenol Designation
1	M55116/1-1	164-229-1
2	M55116/1-2	164-229-2
3	M55116/1-3	164-229-3
4	M55116/1-4	164-229-4
5	M55116/1-5	164-229-5
6	M55116/2-1	164-229-6-1
7	M55116/2-2	164-229-6-2
8	M55116/2-3	164-229-6-3
9	M55116/2-4	164-229-6-4
10	M55116/2-5	164-229-6-5
11	M55116/3-1	164-229-S-1
12	M55116/3-2	164-229-S-2
13	M55116/3-3	164-229-S-3
14	M55116/3-4	164-229-S-4
15	M55116/3-5	164-229-S-5
16	M55116/4-1	164-229-6S-1
17	M55116/4-2	164-229-6S-2
18	M55116/4-3	164-229-6S-3
19	M55116/4-4	164-229-6S-4
20	M55116/4-5	164-229-6S-5
21	M55116/5-1	164-182-1
22	M55116/5-2	164-182-2
23	M55116/5-3	164-182-3
24	M55116/5-4	164-182-4
25	M55116/5-5	164-182-5
26	M55116/6-1	164-182-6-1
27	M55116/6-2	164-182-6-2
28	M55116/6-3	164-182-6-3
29	M55116/6-4	164-182-6-4
30	M55116/6-5	164-182-6-5
31	M55116/7-1	164-182-S-1
32	M55116/7-2	164-182-S-2
33	M55116/7-3	164-182-S-3
34	M55116/7-4	164-182-S-4
35	M55116/7-5	164-182-S-5
36	M55116/8-1	164-182-6S-1
37	M55116/8-2	164-182-6S-2
38	M55116/8-3	164-182-6S-3
39	M55116/8-4	164-182-6S-4
40	M55116/8-5	164-182-6S-5
41	M55116/9	164-183
42	M55116/10	164-183-6
43	M55116/11-1	164-228-1
44	M55116/11-2	164-228-2
45	M55116/11-3	164-228-3
46	M55116/11-4	164-228-4
47	M55116/11-5	164-228-5
48	M55116/12-1	164-228-6-1
49	M55116/12-2	164-228-6-2
50	M55116/12-3	164-228-6-3
51	M55116/12-4	164-228-6-4
52	M55116/12-5	164-228-6-5
53	M55116/13-1	164-228-S-1
54	M55116/13-2	164-228-S-2
55	M55116/13-3	164-228-S-3
56	M55116/13-4	164-228-S-4
57	M55116/13-5	164-228-S-5
58	M55116/14-1	164-228-6S-1
59	M55116/14-2	164-228-6S-2
60	M55116/14-3	164-228-6S-3
61	M55116/14-4	164-228-6S-4
62	M55116/14-5	164-228-6S-5



Dash no-X	Cable diameter
-0	N/A
-1	4.19 ± 0.25
-2	5.79 ± 0.25
-3	6.35 ± 0.25
-4	7.36 ± 0.25
-5	8.12 ± 0.25

Note : Standard plug connector supplied with nylon over molding. For Stainless Steel version please add prefix S01 at the end of part number ordering information.

# Special Products

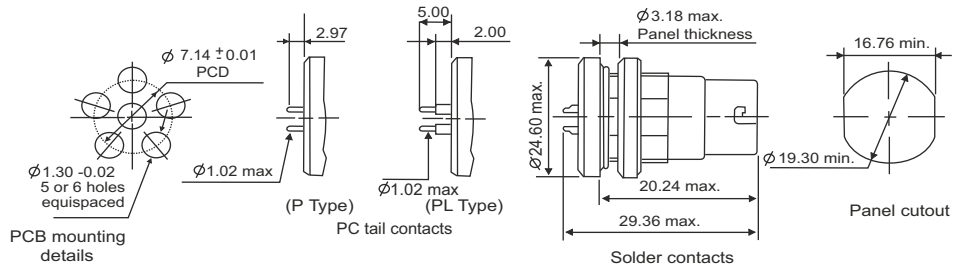
## Receptacles With PC Tail Contacts



Barrel Rigid Contact  
(Crimp Sleeve Terminal)



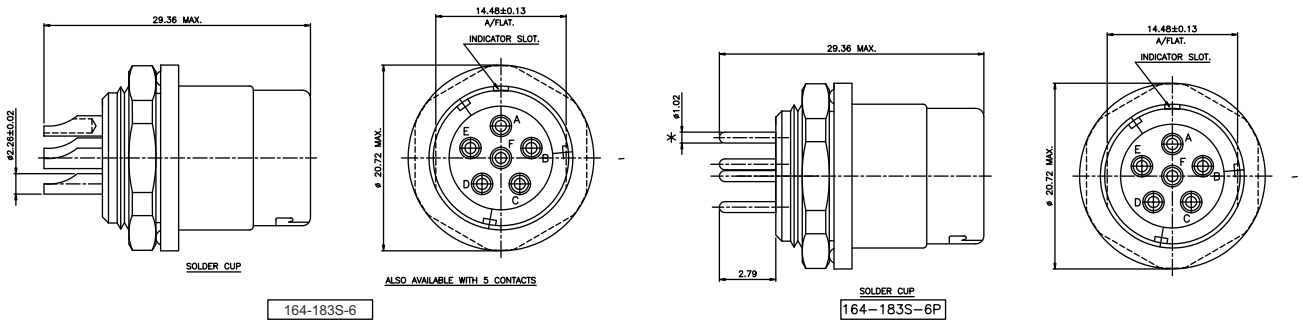
Solder Rigid Contact  
(Solder Cup Terminal)



All dimensions in mm

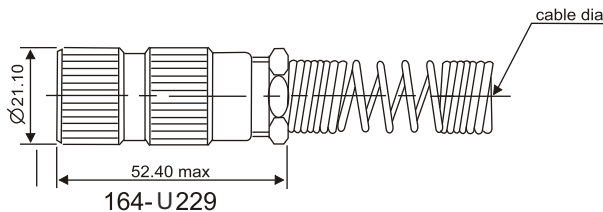
Part Number	No. of Contacts	Contact Type	Mates With
164-183-P	5	PC tail spring loaded	164-229, 164-229-S, 164-182
164-183-PL	5	PC tail spring loaded	164-182-S, 164-182-L, 164-182-LS
164-183-6P	6	PC tail spring loaded	164-229-6, 164-229-6S, 164-182-6
164-183-6PL	6	PC tail spring loaded	164-182-6S, 164-182-6L

## Rear Mount Receptacles 6 Pins



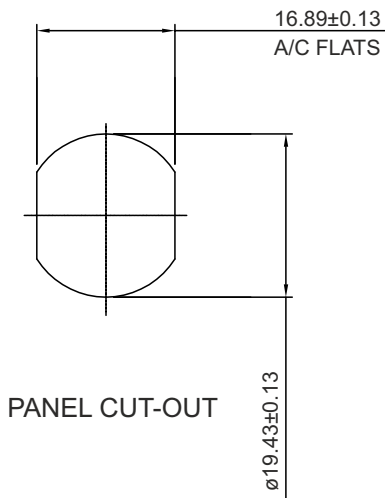
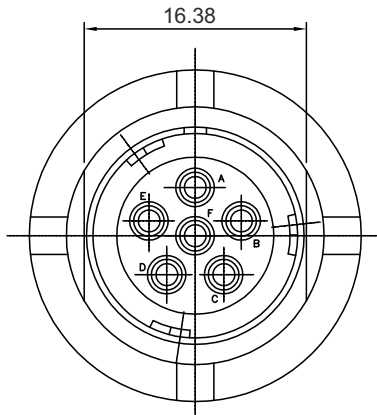
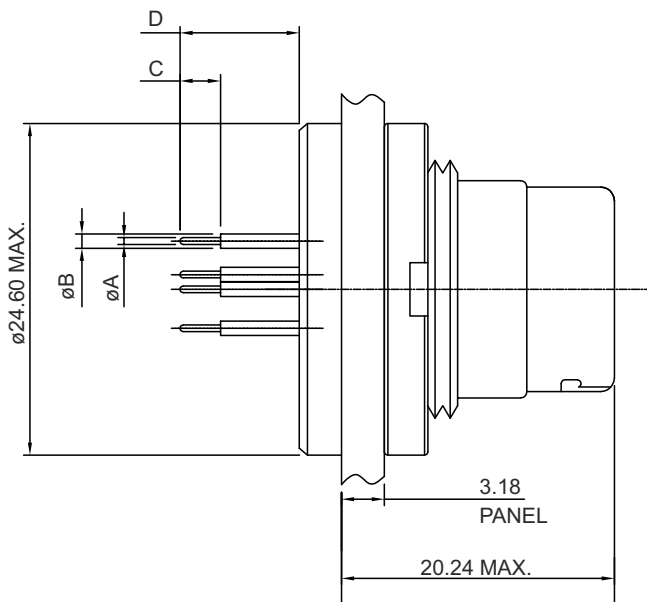
Note: For 5 Pin Connector Contact Factory

## Plug Connector Without Nylon Overmoulded



Part Number	No of contact	Contact Type	Dash no-X	Cable diameter
164-U229-X	5	Barrel Rigid	-0	N/A
164-U229-S-X	5	Solder Rigid	-1	4.19 $\pm$ 0.25
164-U229-6-X	6	Barrel Rigid	-2	5.79 $\pm$ 0.25
164-U229-6S-X	6	Solder Rigid	-3	6.35 $\pm$ 0.25
			-4	7.36 $\pm$ 0.25
			-5	8.12 $\pm$ 0.25

### 164 Receptacle Connector With PC Tail Contact



164-183-5PL-XX

(FOR 5 PIN)

MODIFIER	$\phi A$	$\phi B$	$C \pm 0.50$	$D \pm 0.50$
NO MODIFIER	1.02	1.78	3.00	5.00
-1	1.02	2.26	2.92	4.29
-5	0.71	2.26	3.18	4.93
-8	0.71	2.26	4.78	14.99
-9	1.02	1.02	11.10	11.10
-10	0.71	2.26	5.54	6.53
-12	1.02	1.02	2.79	2.79
-13	0.71	2.26	3.81	11.10
-14	0.76	0.76	3.05	3.05
-15	0.71	2.26	3.56	9.91
-16	1.02	1.02	18.90	18.90
-20	0.76	0.76	14.33	14.33
-21	1.02	1.02	2.79	2.79
-22	0.65	2.25	3.10	5.00
-23	1.02	1.78	2.00	5.00

164-183-6PL-XX

(FOR 6 PIN)

MODIFIER	$\phi A$	$\phi B$	$C \pm 0.50$	$D \pm 0.50$
NO MODIFIER	1.02	1.78	3.00	5.00
-1	1.02	2.26	2.92	4.29
-2	1.02	1.02	11.10	10.10
-8	0.71	2.26	4.78	14.99
-9	0.71	2.26	3.18	4.93
-10	0.71	2.26	5.54	6.53
-12	1.02	1.02	2.79	2.79
-13	0.71	2.26	3.81	11.10
-14	0.76	0.76	3.05	3.05
-15	0.71	2.26	3.56	9.91
-16	1.02	1.02	18.90	18.90
-20	0.76	0.76	14.33	14.33
-21	1.02	1.02	2.79	2.79
-22	0.65	2.25	3.10	5.00
-23	1.02	1.78	2.00	5.00

Note: Consult Factory For Other Pcb Termination Styles And Availability



## Filtered Audio Receptacle Connector

Connector Meets All Requirement Of MIL-C-55116/5081

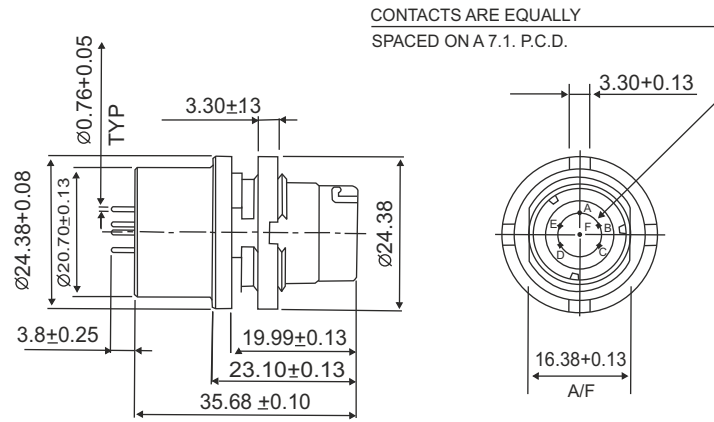
### Filter Specifications:

Capacitance ( 1KHz, 25° )	:8000PF TYP
Insertion Loss (TYP.) (MIL-STD-220, No Load 25°)	:1Mhz - 4dB :10Mhz - 25dB :50Mhz - 60dB
Working Voltage	:100DVC
Dielectric Voltage Breakdown	:300VDC
Insulation Resistance (100VDC, 25° C)	:10000 Mohms Min.
RF Current	:0.25 A Max.

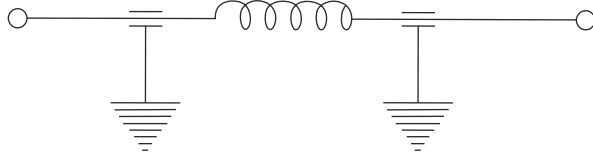
### Method Of Designation

Connector Number	Description	No. Of Contacts	Contact Termination
164F-1836B-527	164 Filtered Audio Receptacle Connector	6	PC Tail
164F-1835B-527	164 Filtered Audio Receptacle Connector	5	PC Tail

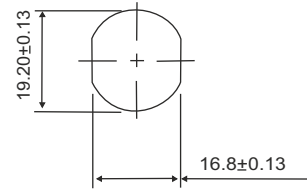
164F-1836B -527 Filtered Audio Receptacle Connector



SCHEMATIC DIAGRAM OF 'PI' FILTER



PANEL CUTOUT



## 164F - 1836B -527 Filtered Audio Receptacle Connector

### Specifications (Technical Data):

### Materials

Shell and Panel Nut	: Stainless Steel
Contacts	: Copper Alloy
Insulator	: Diallyl Pthalate Per MIL-M-14 Type MDG/Polyethersulfone

### Finish Colour

Shell and Panel Nut	: Sand blasted and Passivated
Contacts	: 0.75 $\mu$ Thick Gold Plate Over Nickel Undercoat 2.54 $\mu$
Insulator	: Blue/Black

### Electrical Properties

Operating Voltage	: 60V Max. Potential
Current Rating	: 0.5A Max.
Dielectric Breakdown	: 300V DC
Insulation Resistance	: 1000M Ohms
Contact Resistance(Mated)	: 0.050 Ohms Max.

### Mechanical Properties

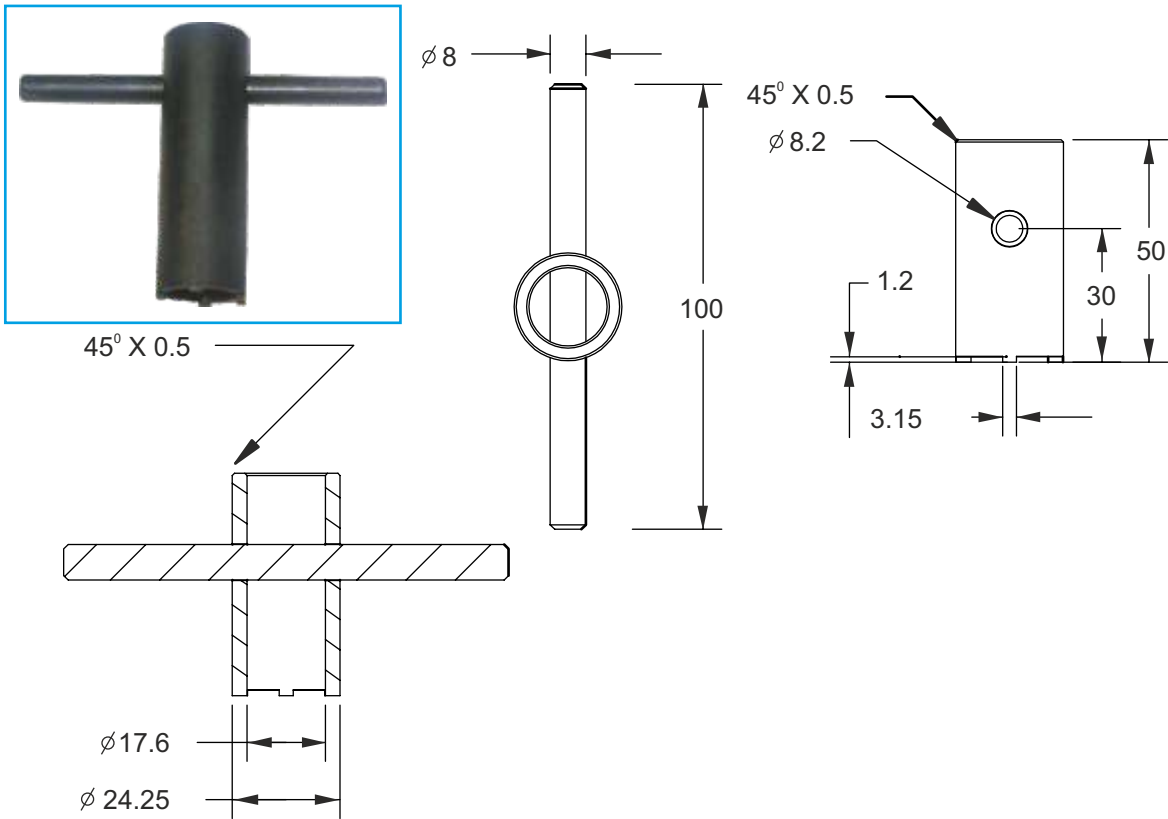
Air Pressure	: 2.5 P.S.I.
Water Immersion	: 48 Hrs. At 6 Feet
Durability	: 3000 Cycles Mate & Unmate

Operating Temperature Range: -55<sup>o</sup> C TO 85<sup>o</sup> C

Amphenol 164 F-1836B-527 Receptacle Mates With:

Amphenol 164-229-6 & 164-229  
 Amphenol 164-229-6S & 164-229-S

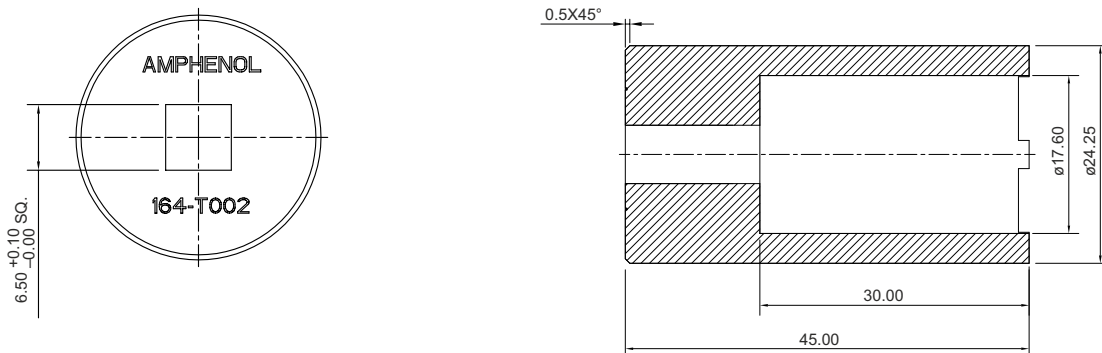
**Tightening Spanner (164-T001)**  
(Panel Nut Tightening For 164-183 Connector)



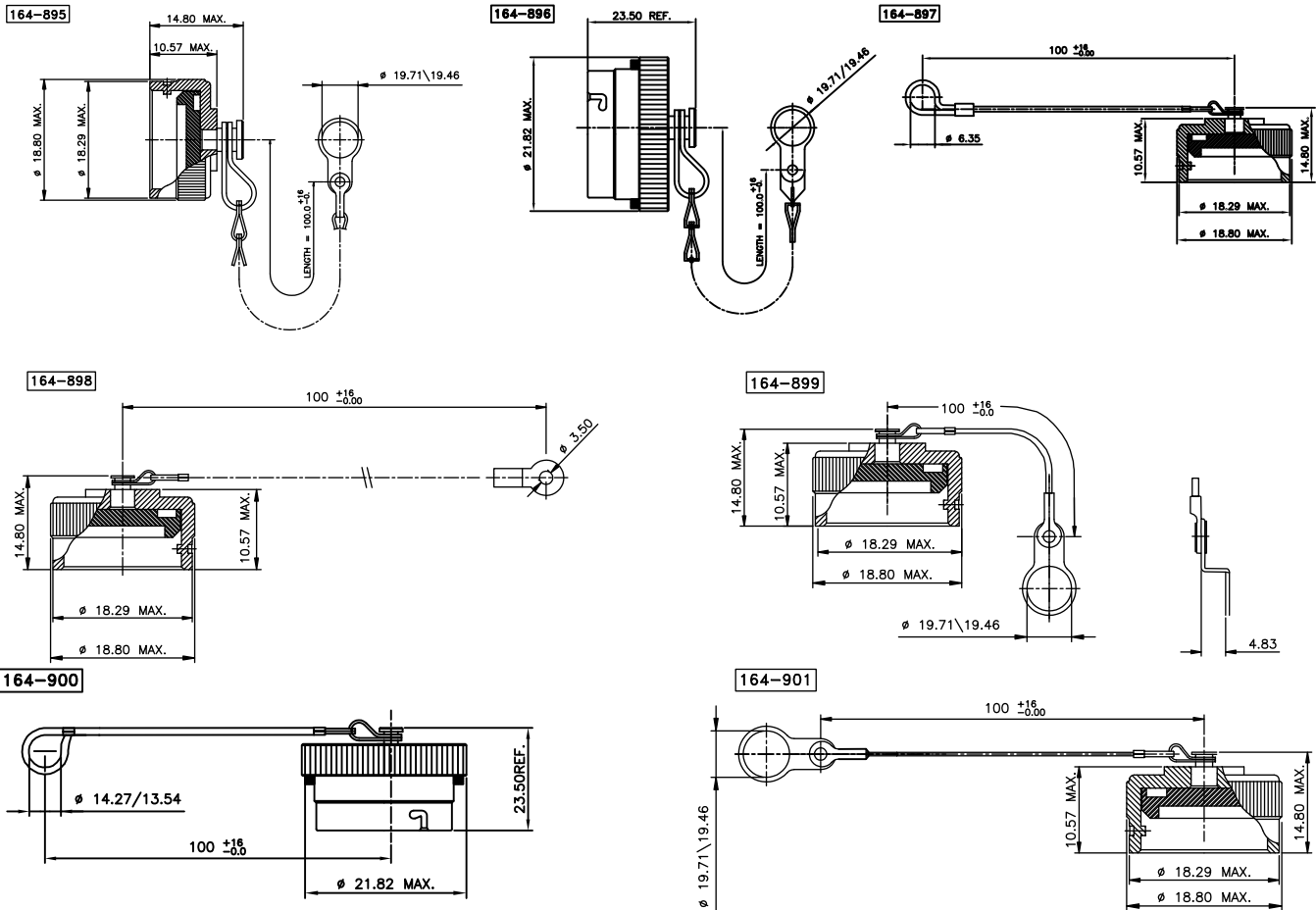
**Tightening Spanner (164-T002)**  
(Panel Nut Tightening For 164-183 Connector - Torque Wrench Provision)



Ordering Part No. - 164- T002



Accessories - Caps For 5 & 6 Pin Connectors



ORDERING INFORMATION FOR 164 DUST CAP

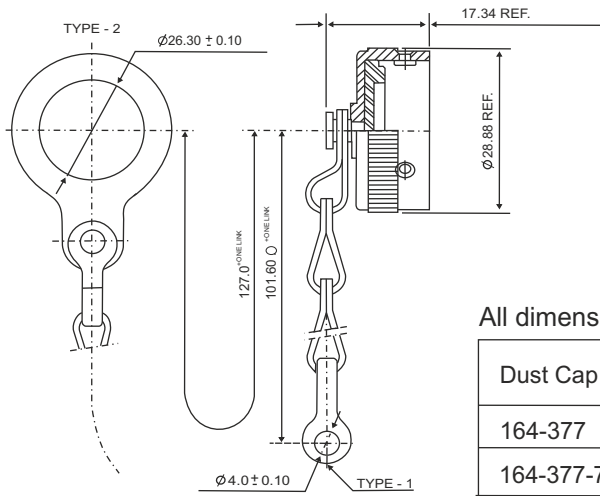
- Series Designation 164 MIL 55116 Audio Connector Caps  
 Shell Style 895
- 895:-Receptacle dust caps for 5 & 6 pin audio connector with chain & solid ring
  - 896:-Plug dust caps for 5 & 6 pin audio connector with chain & solid ring
  - 897:-Receptacle dust caps for 5 & 6 pin audio connector with nylon rope & loop
  - 898:-Receptacle dust caps for 5 & 6 pin audio connector with nylon rope & SS lug
  - 899:-Receptacle dust caps for 5 & 6 pin audio connector with SS rope & lug
  - 900:-Plug caps for 5 & 6 pin audio connector with SS rope & loop
  - 901:-Receptacle dust caps for 5 & 6 pin audio connector with nylon rope & solid ring

- Finish CD LXX
- Special Deviation for length for standard none for Non std. mention length in mm
- Standard Black anodic caps
  - CD - Cadmium olive green finish
  - 622 - Zn Co olive green finish
  - 624 - Zn Co black finish

MATERIAL	
Cover	: Machined Alluminium Alloy
Gasket	: Silicon elastomer
Chain	: Stainless steel passivated
Ring	: Stainless steel passivated
SS Rope	: Stainless steel teflon coated
Rope	: Nylon (olive green)
Fastners	: Stainless steel passivated



Dust Cap for 10 Pin Receptacle



All dimensions in mm

Table 1

Dust Cap No.	Link Type	Cap Finish
164-377	Type -2	Black Anodised
164-377-714	Type-2	Cadmium Plate with Electroless Under Coat
164-377-01	Type-1	Black Anodised
164-377-01-714	Type-1	Cadmium Plate with Electroless Under Coat

## Specifications:

### 1. Materials & Finish

Receptacle Shell	: Stainless Steel, passivated, sand blasted
Plug Shell	: Stainless Steel, black passivated
Rear Shell	: Aluminium alloy, black oxide : Zinc Black for shielded
Inserts	: Diallylphthalate as per MIL-M-14F, type MDG
Contacts	: Copper Alloy, Gold plated .000030 In
Panel Nuts	: Stainless Steel, passivated sand blasted

### 2. Mechanical Properties

Durability	: 3000 Cycles Min.
Air Pressure	: 2.5psi.
Immersion	: 48 Hrs at 6 ft.

### 3. Electrical Performance

Dielectric Strength	: 500 vRms
Insulation Resistance	: 1000 Megha Ohms Min.
Contact Resistance (mated)	: .015 Ohms (Max.)

### 4. Reference Standard

MIL-C-10544

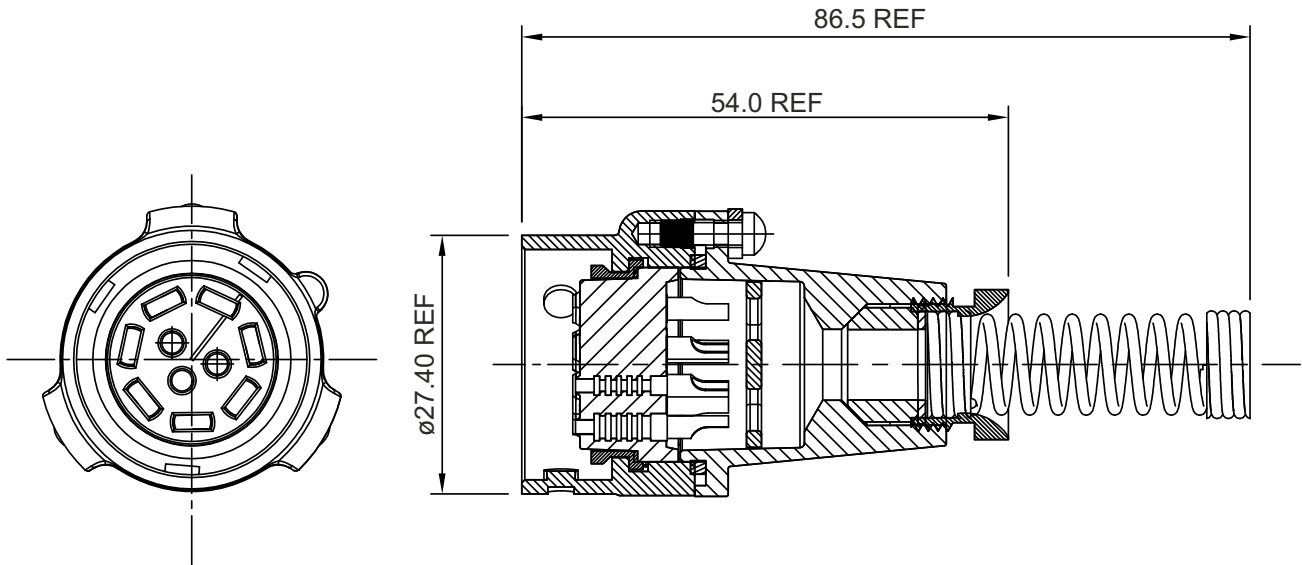
### 5. Environmental

Operating Temperature :- -55°C to +85°C

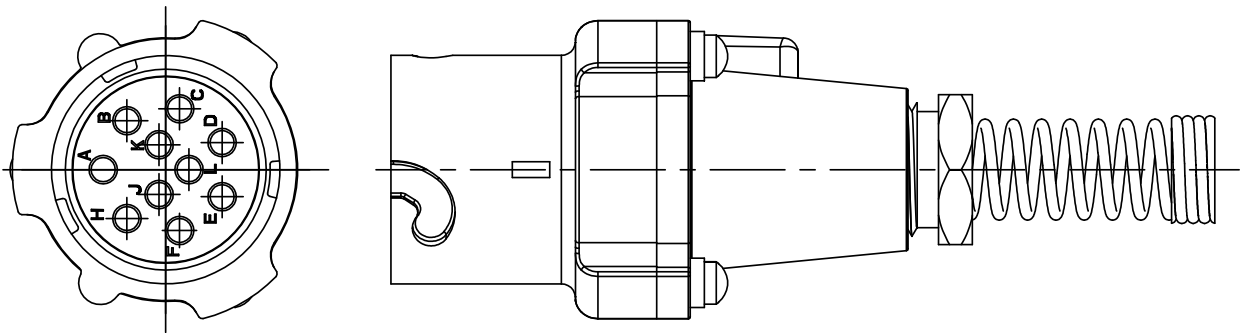
### 6. Ordering Information

SL. NO.	MIL PART NUMBER	AMPHENOL PART NUMBER	CONNECTOR	NO. OF CONTACTS	TYPE OF TERMINATION	REAR SHELL DESIGN
1	U-77()/U	164-77/U	PLUG	10	SOLDER POCKET	STRAIGHT
2	U-78()/U	164-78/U	PLUG	10	SOLDER POCKET	STRAIGHT
3	U-79()/U	164-79/U	RECEPTACLE	10	SOLDER POCKET	STRAIGHT
4	U-126()/U	164-126/U*	RECEPTACLE	10	SOLDER POCKET	STRAIGHT
5	U-127()/U	164-127/U*	PLUG	10	SOLDER POCKET	RIGHT ANGLE
6	U-161()/U	164-161/U	PLUG	10	TAPER PIN	STRAIGHT

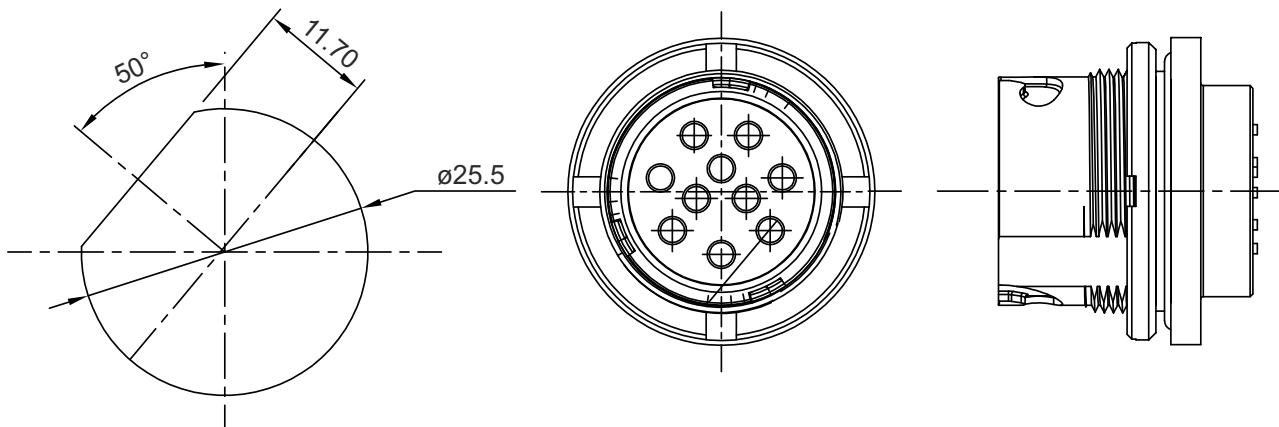
**164-77/U Plug With Rigid Contacts, Solder Pocket Terminal, Straight Rear Shell**



**164-78/U Receptacle With Non Rigid Contacts, Solder Pocket Terminal, Straight Rear Shell**

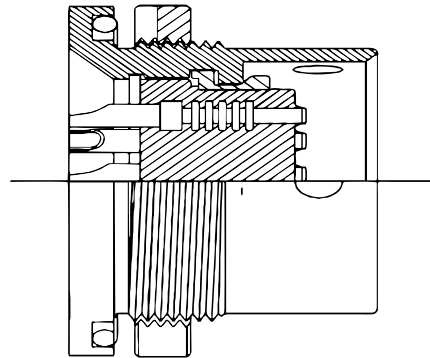


**164-79/U Panel Mount Receptacle With Non Rigid Contacts, Solder Pocket Terminal**

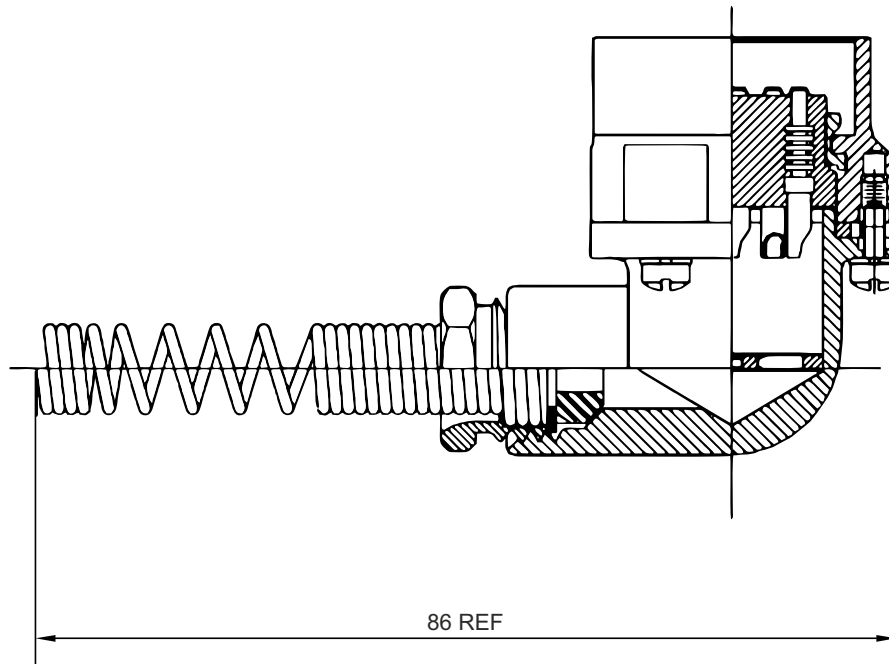


Recommended Panel Cut Out

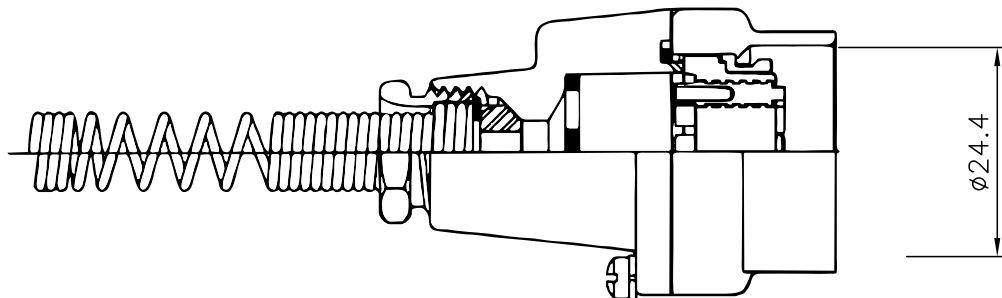
164-126/U Panel Mount Plug With Rigid Contacts, Solder Pocket Terminal

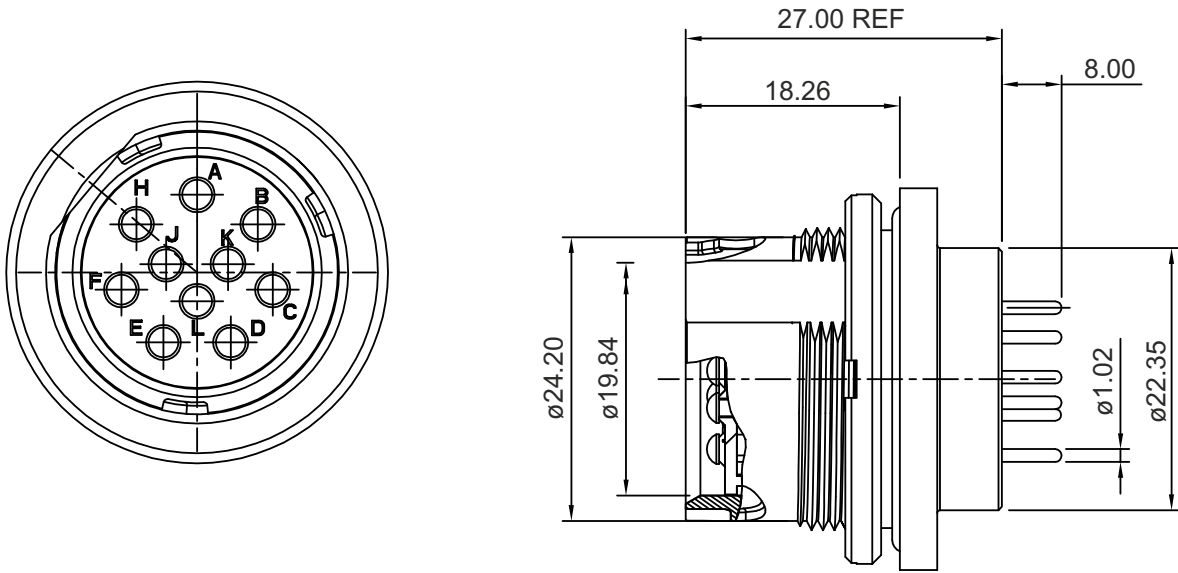


164-127/U Plug With Rigid Contacts, Solder Pocket Terminal, Right Angled Rear Shell

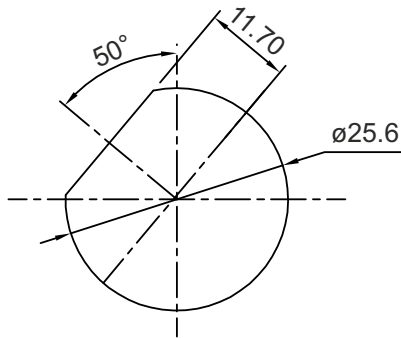


164-161/U Plug With Rigid Contacts, Solder Pocket Terminal, Right Angled Rear Shell

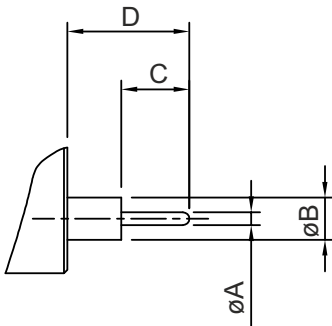




164-79/U—P PLAIN PIN DESIGN



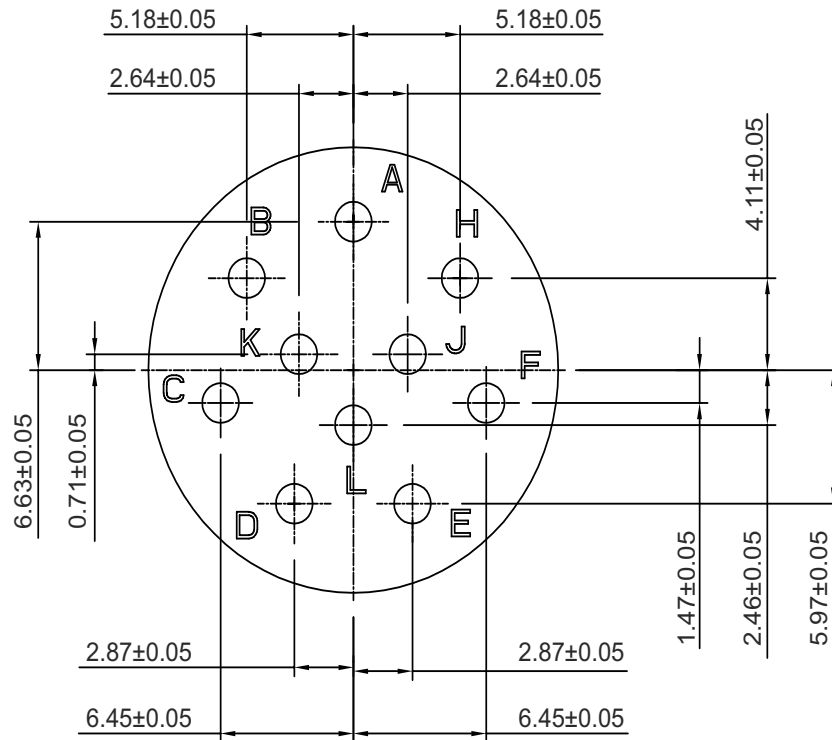
RECOMANDED PANEL CUT OUT



164-79/U—PL—XX STEPPED PIN DESIGN

MODIFIER(XX)	$\phi A$	$\phi B$	C	D
NO MODIFIER	1.02	1.78	3.00	5.00
-1	1.02	2.26	2.92	4.29
-2	1.02	1.02	11.10	11.10
-8	0.71	2.26	4.78	14.99
-9	0.71	2.26	3.18	4.93
-10	0.71	2.26	5.54	6.53
-12	1.02	1.02	2.79	2.79
-13	0.71	2.26	3.81	11.10
-14	0.76	0.76	3.05	3.05
-15	0.71	2.26	3.56	9.91
-16	1.02	1.02	18.90	18.90
-20	0.76	0.76	14.33	14.33
-21	1.02	1.02	2.79	2.79
-22	0.65	2.25	3.10	5.00
-23	1.02	1.78	2.00	5.00

## PCB Pin Co-ordinates



## Specifications:

### 1. Ordering Information

164—79/U—P	: Plain Pin Design
164—79/U—P	: Stepped Pin Design

### 2. Materials & Finish

Front Shell	: Stainless Steel, Sand Blasted Finish.
Spanner Nut	: Stainless Steel, Sand Blasted Finish.
Inserts	: Diallylphthalate as per MIL—M—14F, type MDG
Contacts	: Copper Alloy, Gold plated .000030 In

### 3. Mechanical Properties

Durability	: 3000 Cycles Minimum.
Air Pressure	: 2.5psi.
Immersion	: 48 Hrs at 6 ft.

### 4. Electrical Performance

Dielectric Strength	: 500 vRms
Insulation Resistance	: 1000 Megha Ohms Min
Contact Resistance (mated)	: .015 Ohms (Max)

### 5. Reference Standard

STD	: — MIL—C—10544
PART NO	: — U—79/U

Notice: All information, including illustrations given herein is believed to be accurate at the time of printing. In lieu of design advances, Amphenol reserves the right to change specifications without notice. This publication Series 164 Connectors AC16403 0118 supercedes all existing Amphenol literature on Series 164 Connectors.



## NORTH AMERICA

### Sales & Product Support

Amphenol PCD  
72 Cherry Hill Drive  
Beverly, MA 01915 USA  
Tel: +1-978-624-3400  
Fax: +1-978-927-1513  
info@amphenolpcd.com  
www.amphenolpcd.com  
www.backshellworld.com

Amphenol Aerospace Operations  
40-60, Delaware Avenue  
Sidney, NY 13838-1395  
Tel: +1-607-563-5011  
Fax: +1-607-563-5357

Amphenol Canada  
Meford Drive  
Scarborough,  
ON M1B 2X6  
Tel: +416-291-4401  
Fax: +416-292-0647

Amphenol Fiber Systems International  
1300 Central Expressway North  
Suite 100 Allen, Texas 75013, USA  
Tel: +1-214-547-2400  
Fax: +1-214-547-9344

## EUROPE

France  
Amphenol Socapex S.A.S.  
948, Promenade de l'Arve  
Bp29, Thyez Cedex  
74311, France  
Tel: +33-4-5089-2800  
Fax: +33-4-5096-1941

United Kingdom  
Amphenol Limited  
Thanet Way, Whitstable  
Kent CT5 3JF, England  
Tel: +44-1227-773-200  
Fax: 44-1227-276-571

Germany  
Amphenol-Air LB GmbH  
Am Kleinbahnhof 4  
Saarlouis  
D-66740, Germany  
Tel: 49-6831-9810-00  
Fax: 49-6831-9810-30

Italy  
Via Barbaiana 5  
20020 Lainate (Milano)  
Italy  
Tel: +39-02-93254.209  
+39-02-93254.214  
Fax: +39-02-93254-444

Center & East Europe  
Amphenol  
Wiener Gasse 68  
2380 Perchtoldsdorf  
Tel: +43-699-10396071  
Fax: +43 699 40396071

Amphenol Air-LB  
Immeuble Le Doublon  
11, Avenue Dobonnet  
Courbevoie-Cedex  
92407, France  
Ph: +33-1-4905-3000  
Fax: +33-1-4905-3043

Spain  
Amphenol Iberica  
Edificio Burgosol Oficina  
N 55 C/Comunidad de  
Madrid 35 bis -  
Las Rozas (Madrid)  
Tel: +34-91-6407302  
+34-91-6407306  
Fax: +34-91-6407307

Austria  
Amphenol Austria  
Wiener Gasse 68  
2380, Erchtoldsdarf,  
Austria  
Tel: + 43-69910396071  
Fax: + 43-69940306071

Holland  
Amphenol Benelux  
Zademaker 121  
NL-2401 PD Alphen  
aan den Rijn Holland  
Tel: +31-172-444903  
Fax: +31-172 240254

Sweden  
Amphenol  
(Nordic & Baltic)  
Ångsullsvägen 7  
S-187 51 Täby.  
Sweden  
Tel: +46-85-1051816  
+46-76-8418600  
Fax: +46-70- 2634677  
+46-70-2203197

## ASIA

India  
Amphenol Interconnect India Pvt. Ltd.  
105 Bhosari Industrial Area  
Pune-411026, India  
Tel: +9120-3068-8305  
Fax: +9120-2712-9158

Japan  
Amphenol Japan  
471-1, Deba, Ritto City  
Shiga 520-3041, Japan  
Tel: +81-77-553-8501  
Fax: +81-77-551-2200

Singapore  
Amphenol East Asia Ltd.  
72 Bendemeer Road  
# 03-33 Luzerne  
Singapore 339 941  
Tel: 65-6294-2128  
Fax: 65-6294-3522

China  
Amphenol PCD Shenzhen  
3/F Building, A4 Songbai  
Industrial Park  
East Road of Minghuan  
Gongming Town, Baon District  
Shenzhen, China  
Tel: +86-755-8173-8000  
Fax: +86-755-8173-8180

Amphenol Interconnect India Pvt. Ltd.  
61 Electronics City  
Bangalore-560 100, India  
Ph: +9180-2852-3838  
Fax: +9180-2852-0418

Korea  
Amphenol Daeshin Electronics  
558 SoSa, SongNae, Bucheon-City  
Kyunggi-Do, Korea 420-130  
Tel: +82-32-610-3800  
Fax: +92-32-673-2507

## ROW

Australia  
Amphenol Australia Pty Ltd  
2 Fiveways Boulevard  
Keysborough  
VIC 3173  
Ph: +61-3-8796-8888  
Fax: +61-3-8796-8801

Africa  
Amphenol South Africa  
30 Impala Road  
2196 Sandton-Chistlehurst  
South Africa  
Tel: +27-11-783-9517  
Fax: +27-11-783-9519

Russia  
Amphenol Russia  
8-2 Yaroslavskaja Str  
129164 Moscow, Russia  
Tel: +7-495-937-6341  
Fax: +7-495-937-6319

Argentina  
Amphenol Argentina  
Avenida Callao 930  
2nd Floor, Office B Plaza  
C1023AAP Buenos Aires  
Argentina  
Tel: 54-11-4815-6886  
Fax: 54-11-4814-5779

Israel  
Bar-Tec Ltd.  
P.O. Box 279  
Kfar Sava, 44102 Israel  
Tel: +972-9-7644100  
Fax: +972-9-7674324

Maslak  
34396 Istanbul  
Tel: +90-212-335-2501  
Fax: +90-212-335-2500

Brazil  
Amphenol do Brasil Ltda  
Rua Diogo Moreira 132  
CEP 05423-010  
Sao Paulo-SP, Brazil  
Tel: +55-11-3815-1003  
Fax: +55-11-3815-1629