

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.

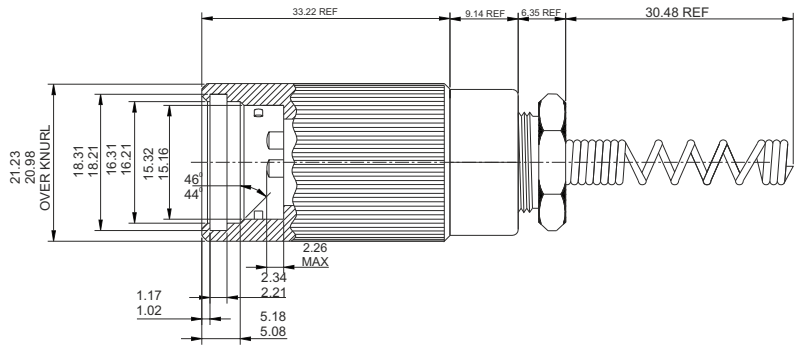
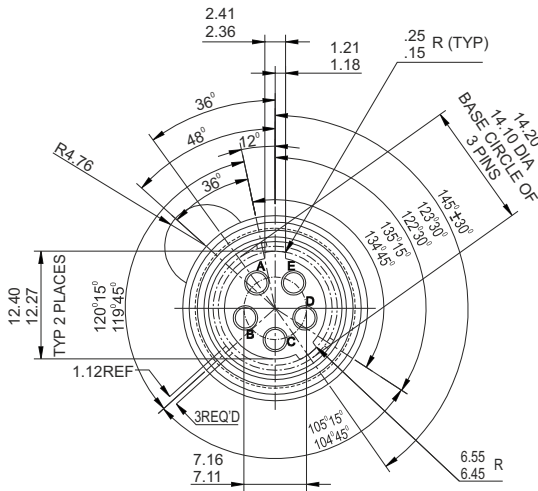
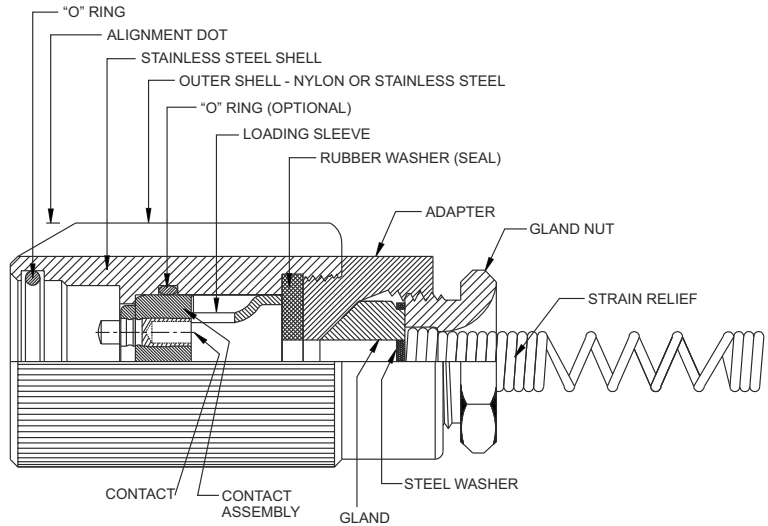
Because we are held responsible for the accuracy and currency of this QPL, please let us know if your company discontinues production of these products.

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

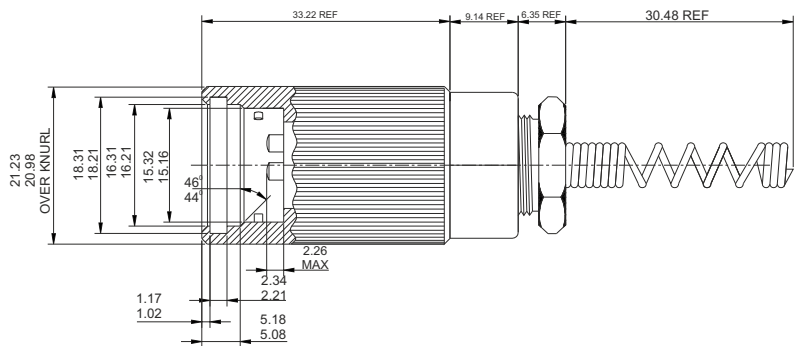
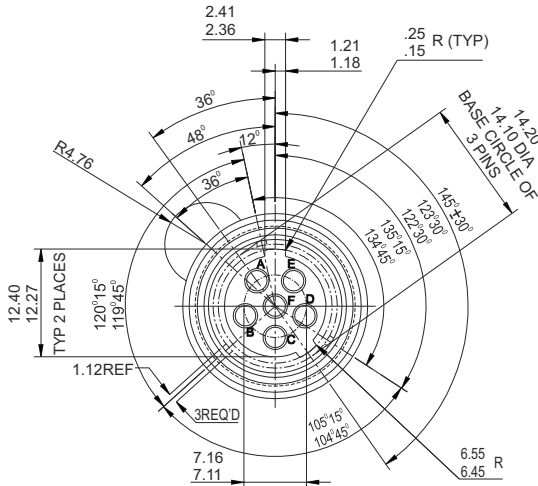
Sincerely,



JOSEPH GEMPERLINE
 Chief
 Sourcing and Qualifications Division



M55116/1-X

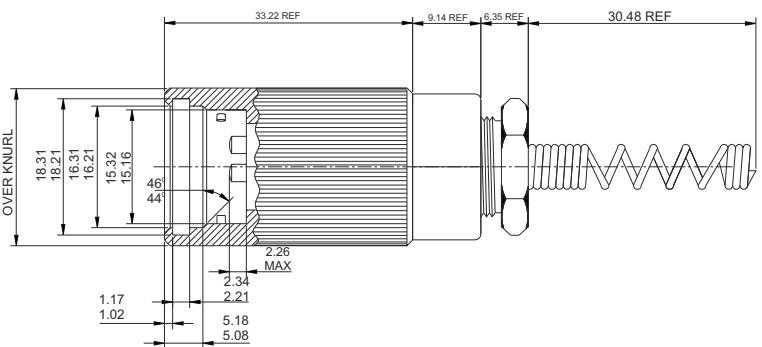
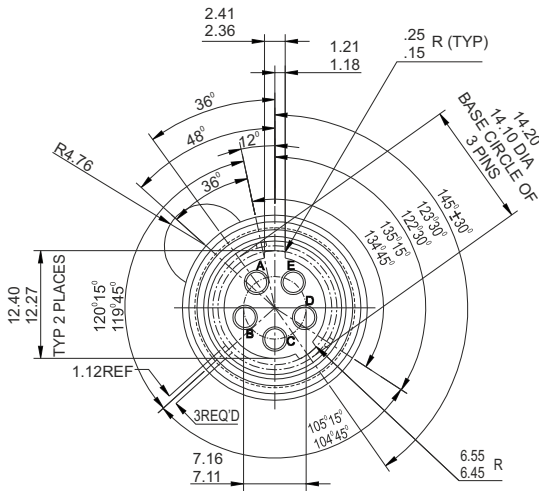
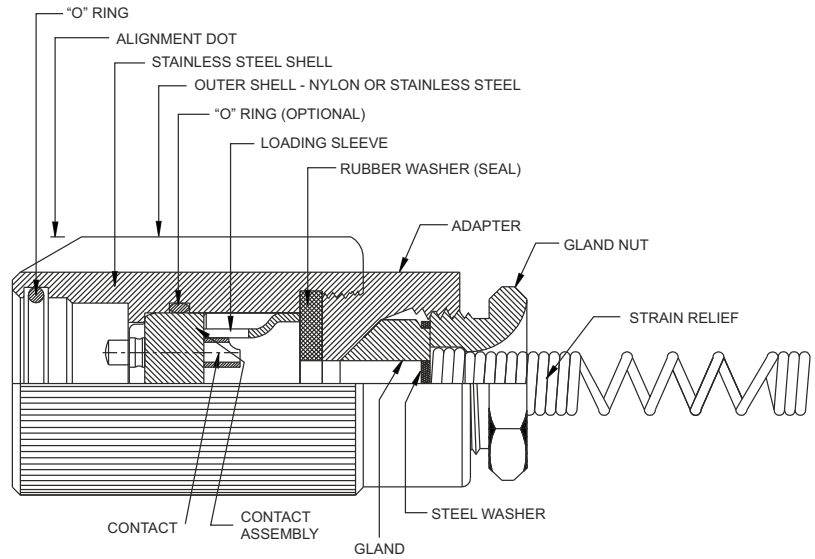


M55116/2-X

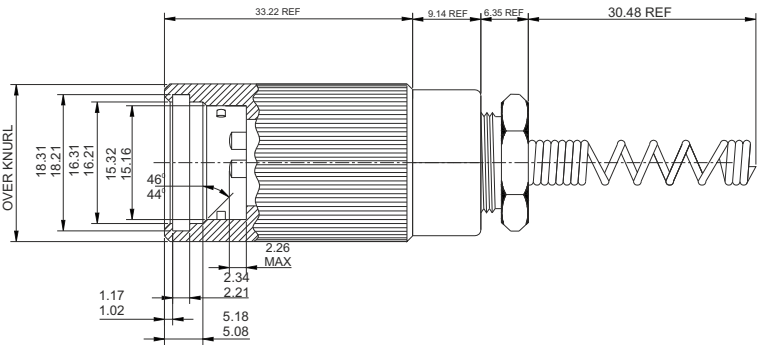
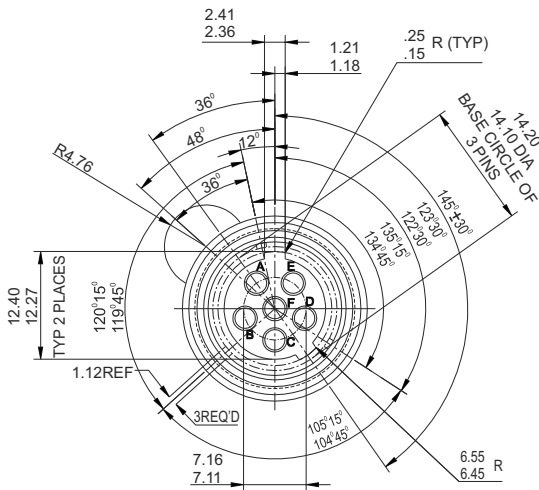
| Sr No. | Description | MIL Designation | Amphenol Designation |
|--------|--|-----------------|----------------------|
| 1 | 5 Pin Audio plug connector with crimp sleeve terminal & wire strain relief | M55116/1-X | 164-229-X |
| 2 | 6 Pin Audio plug connector with crimp sleeve terminal & wire strain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

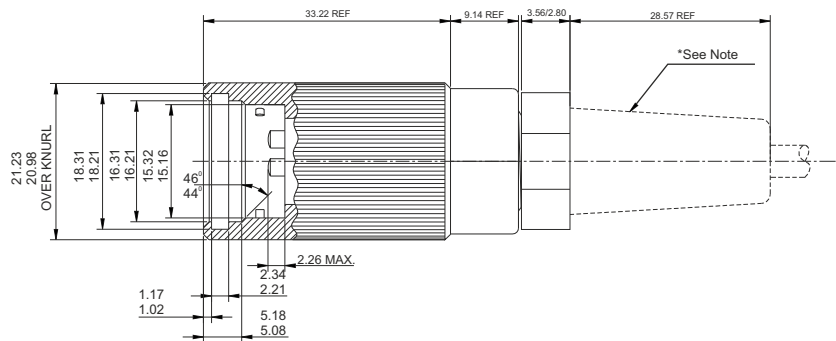
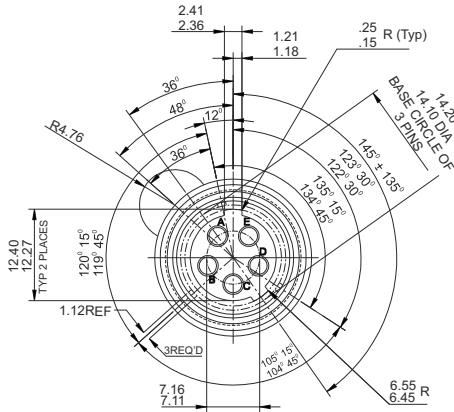
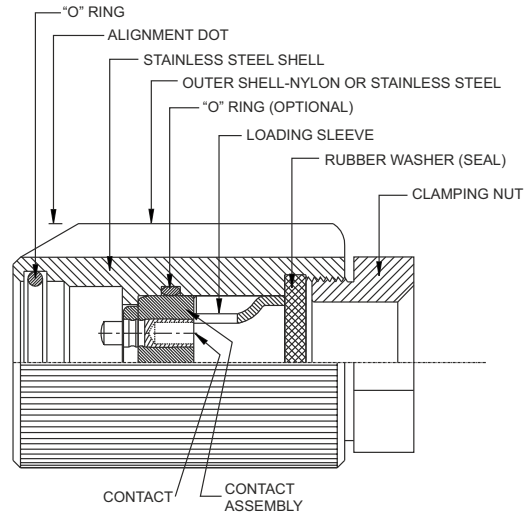


M55116/4-X

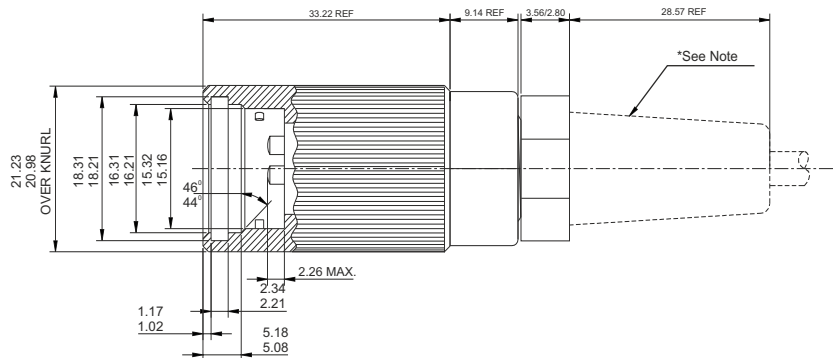
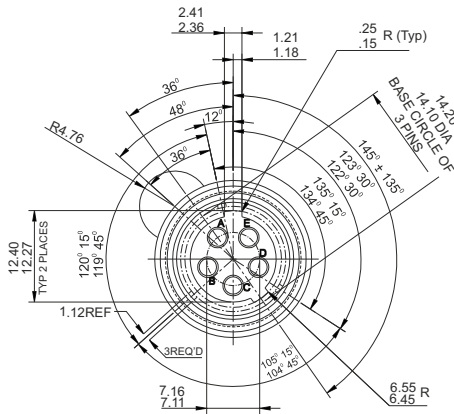
| Sr No. | Description | MIL Designation | Amphenol Designation |
|--------|--|-----------------|----------------------|
| 1 | 5 Pin Audio plug connector with Solder Cup Terminal & wire strain relief | M55116/3-X | 164-229-S-X |
| 2 | 6 Pin Audio plug connector with Solder Cup Terminal & wire strain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

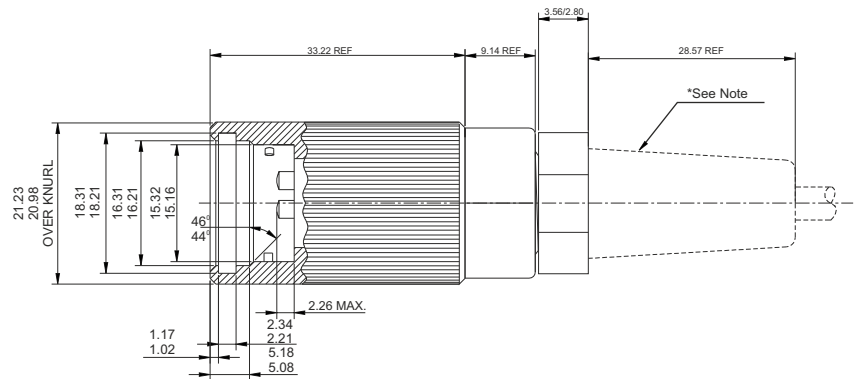
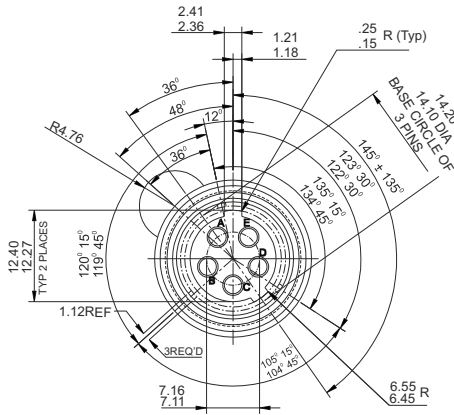
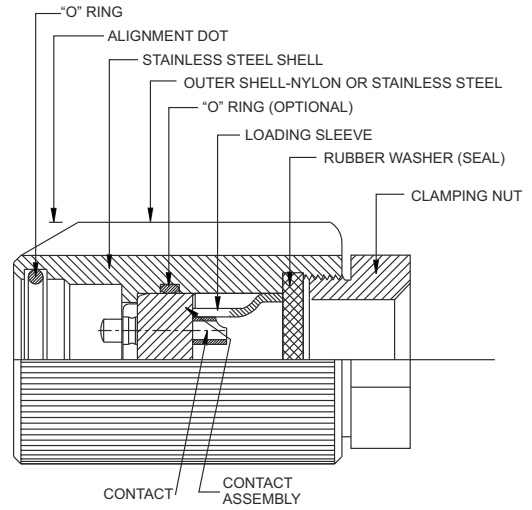
| Sr No. | Description | MIL Designation | Amphenol Designation |
|--------|---|-----------------|----------------------|
| 1 | 5 Pin Audio plug connector with crimp sleeve terminal & molded strain relief (Not supplied) | M55116/5-X | 164-182-X |
| 2 | 6 Pin Audio plug connector with crimp sleeve terminal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

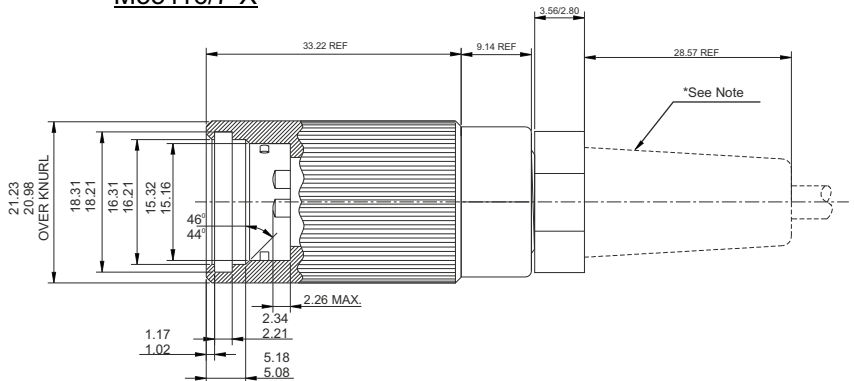
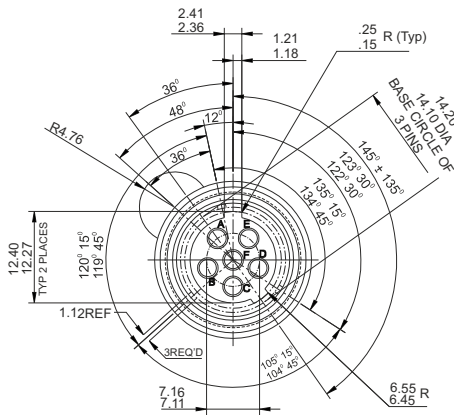
X Stands for the Cable size accommodation, is identified by a dash number as shown in above table. This number indicates the outside diameter of the cable that the connector will accommodate.

*Nylon molded strain relief on request

Five & Six Pin Audio Plug Connector Solder Cup Terminal



M55116/7-X



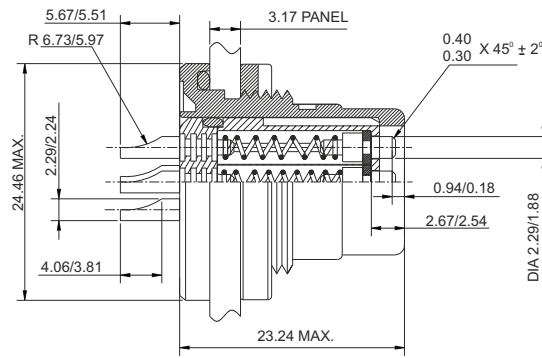
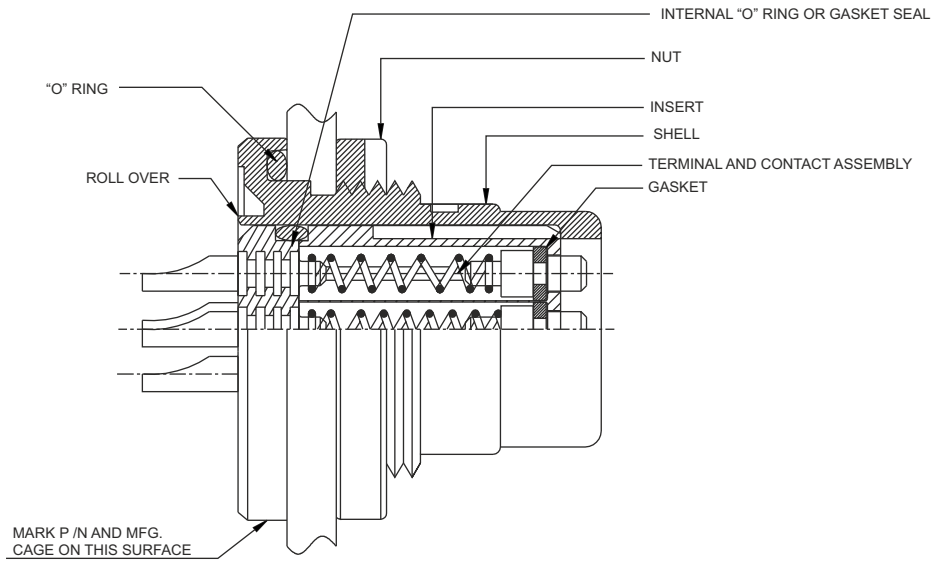
M55116/8-X

| Sr No. | Description | MIL Designation | Amphenol Designation |
|--------|---|-----------------|----------------------|
| 1 | 5 Pin Audio plug connector with Solder Cup Terminal & molded strain relief (Not Supplied) | M55116/7-X | 164-182-S-X |
| 2 | 6 Pin Audio plug connector with Solder Cup Terminal & molded strain relief (Not Supplied) | M55116/8-X | 164-182-6S-X |

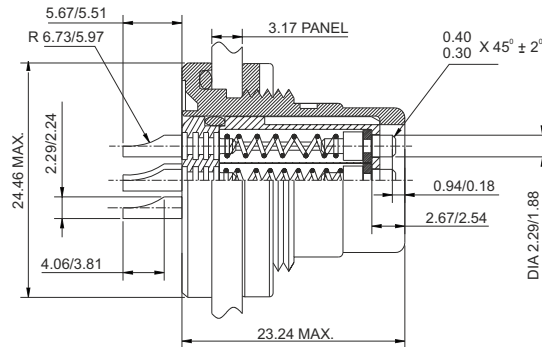
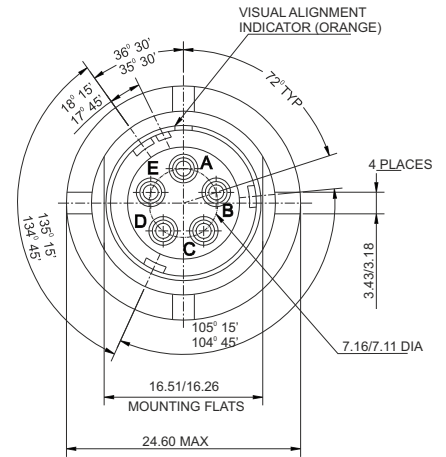
| Dash no-X | Cable diameter |
|-----------|----------------|
| -0 | N/A |
| -1 | 4.19 ± 0.25 |
| -2 | 5.79 ± 0.25 |
| -3 | 6.35 ± 0.25 |
| -4 | 7.36 ± 0.25 |
| -5 | 8.12 ± 0.25 |

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.

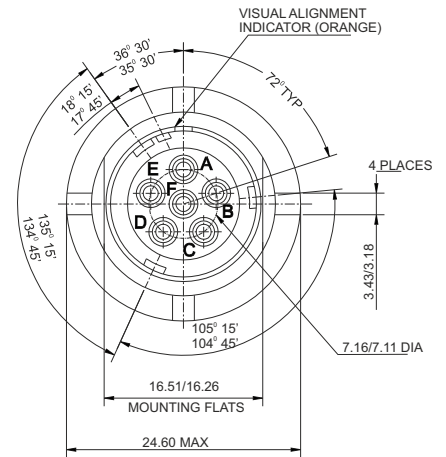
*Nylon molded strain relief on request



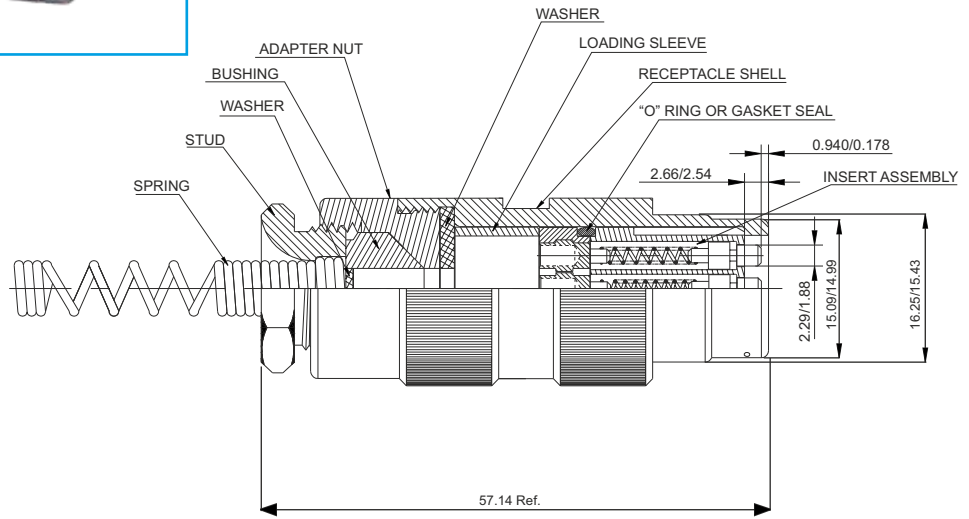
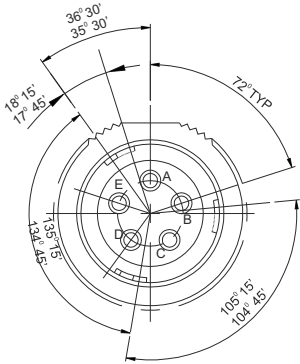
M55116/9



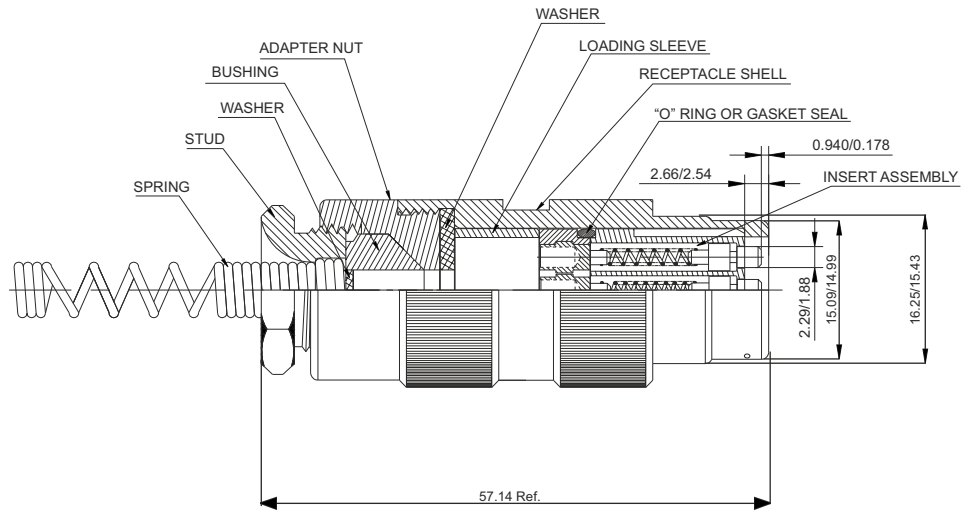
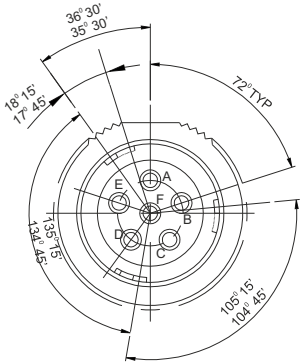
M55116/10



| 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

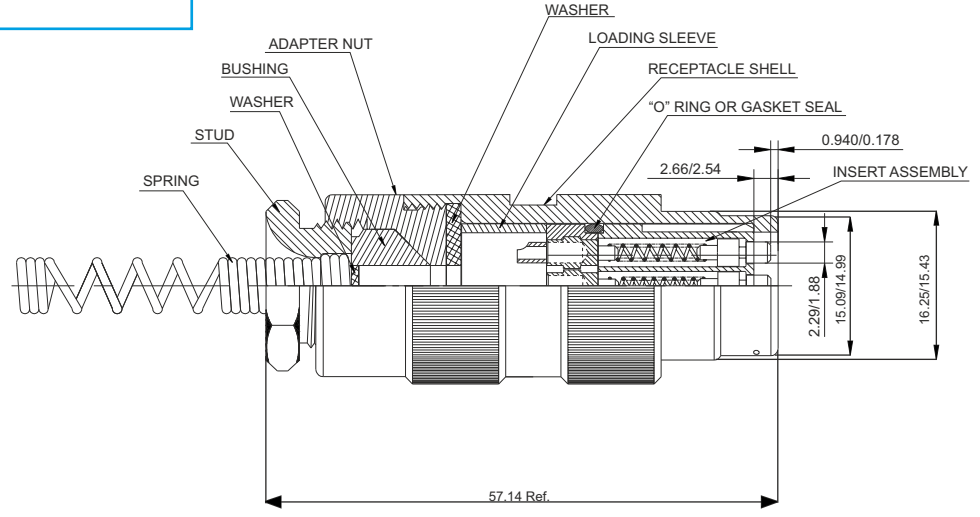
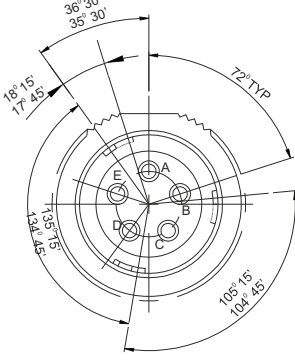
| Sr No. | Description | MIL Designation | Amphenol Designation |
|--------|--|-----------------|----------------------|
| 1 | 5 Pin Audio Receptacle with Crimp sleeve terminal & wire strain relief | M55116/11-X | 164-228-X |
| 2 | 6 Pin Audio Receptacle with Crimp sleeve terminal & wire strain relief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

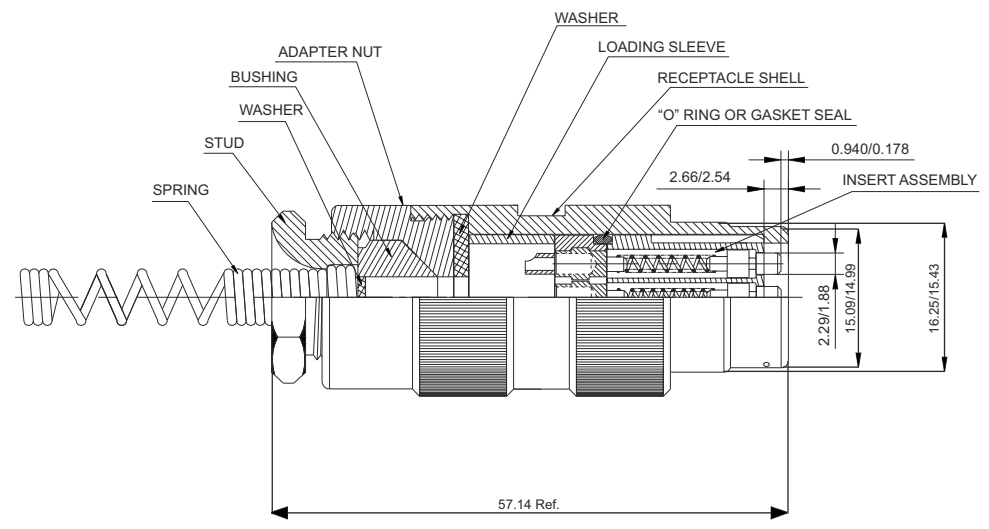
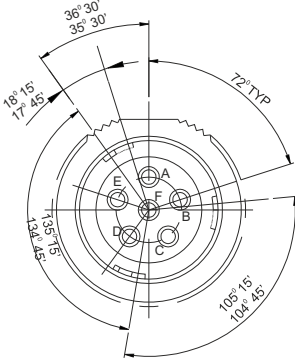
X Stands for the Cable size accommodation, is identified by a dash number as shown in above table. This number indicates the outside diameter of the cable that the connector will accommodate.

F

ive & Six Pin Audio Receptacle Connector Solder Cup Terminal



M55116/13-X



M55116/14-X

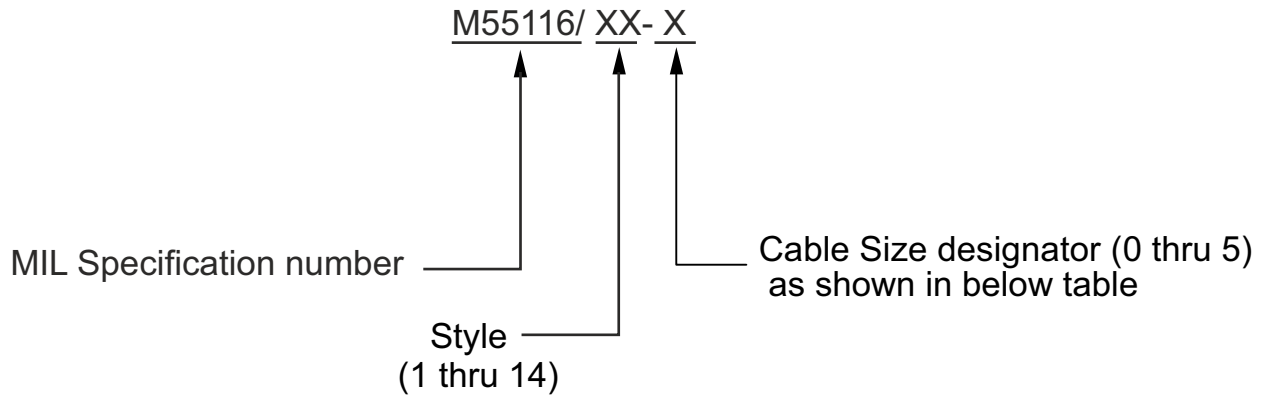
| Sr No. | Description | MIL Designation | Amphenol Designation |
|--------|--|-----------------|----------------------|
| 1 | 5 Pin Audio Receptacle with solder cup terminal & wire strain relief | M55116/13-X | 164-228-S-X |
| 2 | 6 Pin Audio Receptacle with solder cup terminal & wire strain relief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

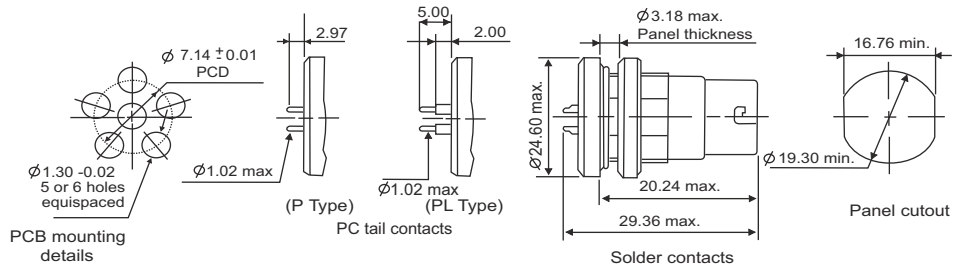
Receptacles With PC Tail Contacts



Barrel Rigid Contact
(Crimp Sleeve Terminal)



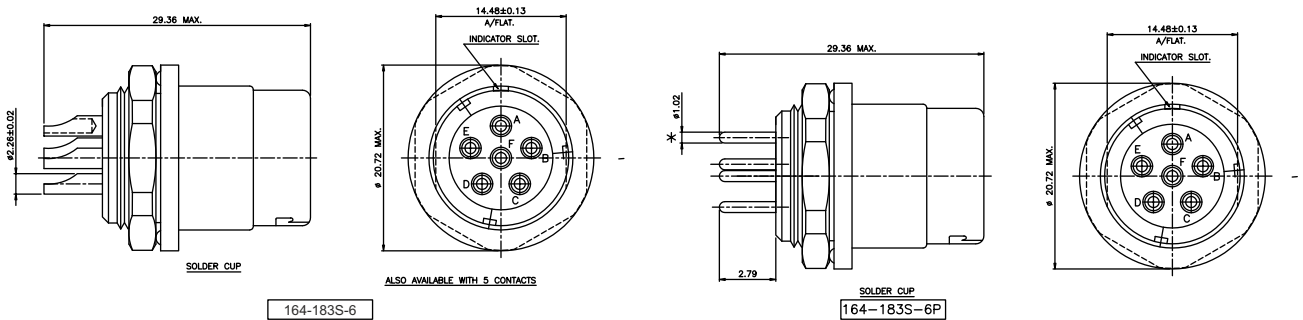
Solder Rigid Contact
(Solder Cup Terminal)



All dimensions in mm

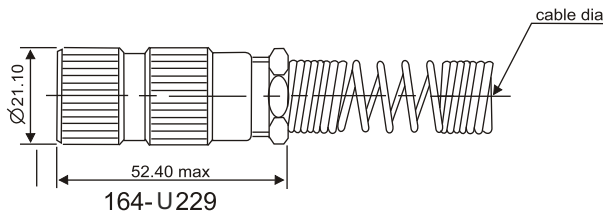
| Part Number | No. of Contacts | Contact Type | Mates With |
|-------------|-----------------|-----------------------|----------------------------------|
| 164-183-P | 5 | PC tail spring loaded | 164-229, 164-229-S, 164-182 |
| 164-183-PL | 5 | PC tail spring loaded | 164-182-S, 164-182-L, 164-182-LS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



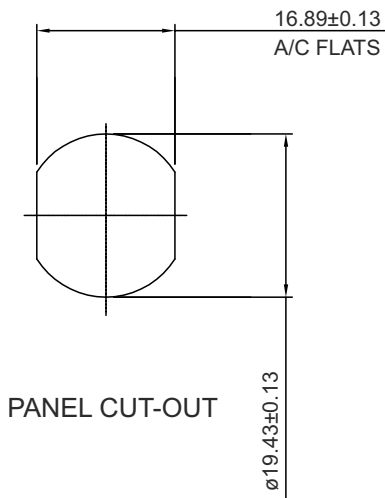
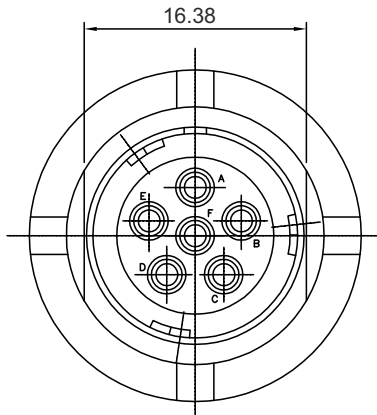
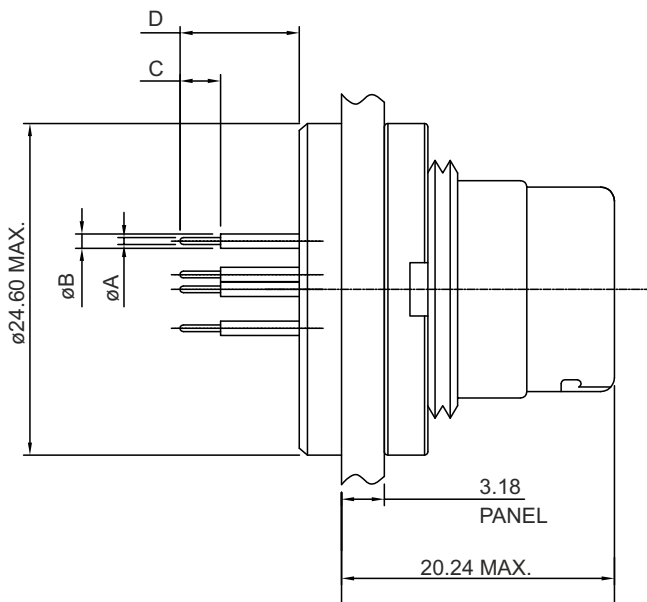
Note: For 5 Pin Connector Contact Factory

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 | øA | øB | C±0.50 | D±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 | øA | øB | C±0.50 | D±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

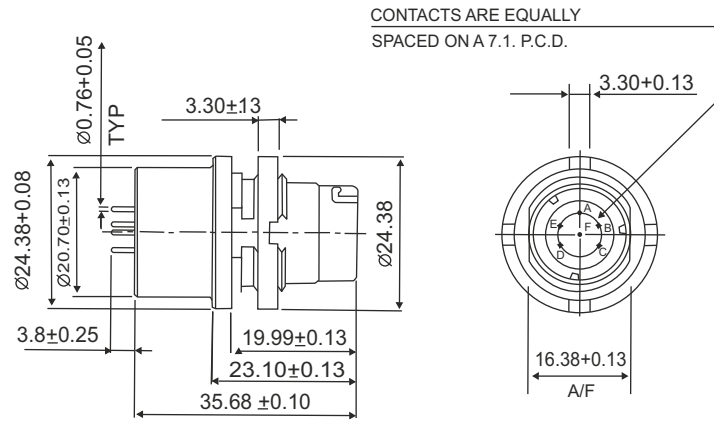
Filter Specifications:

| | |
|---|---|
| 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. |

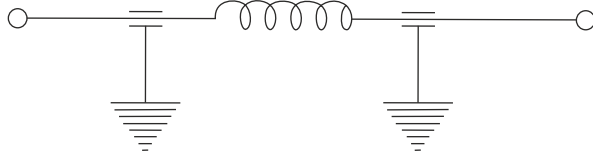
Method Of Designation

| 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 |

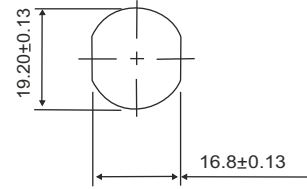
164F-1836B -527 Filtered Audio Receptacle Connector



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 μ Thick Gold Plate Over Nickel Undercoat 2.54 μ |
| 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 |

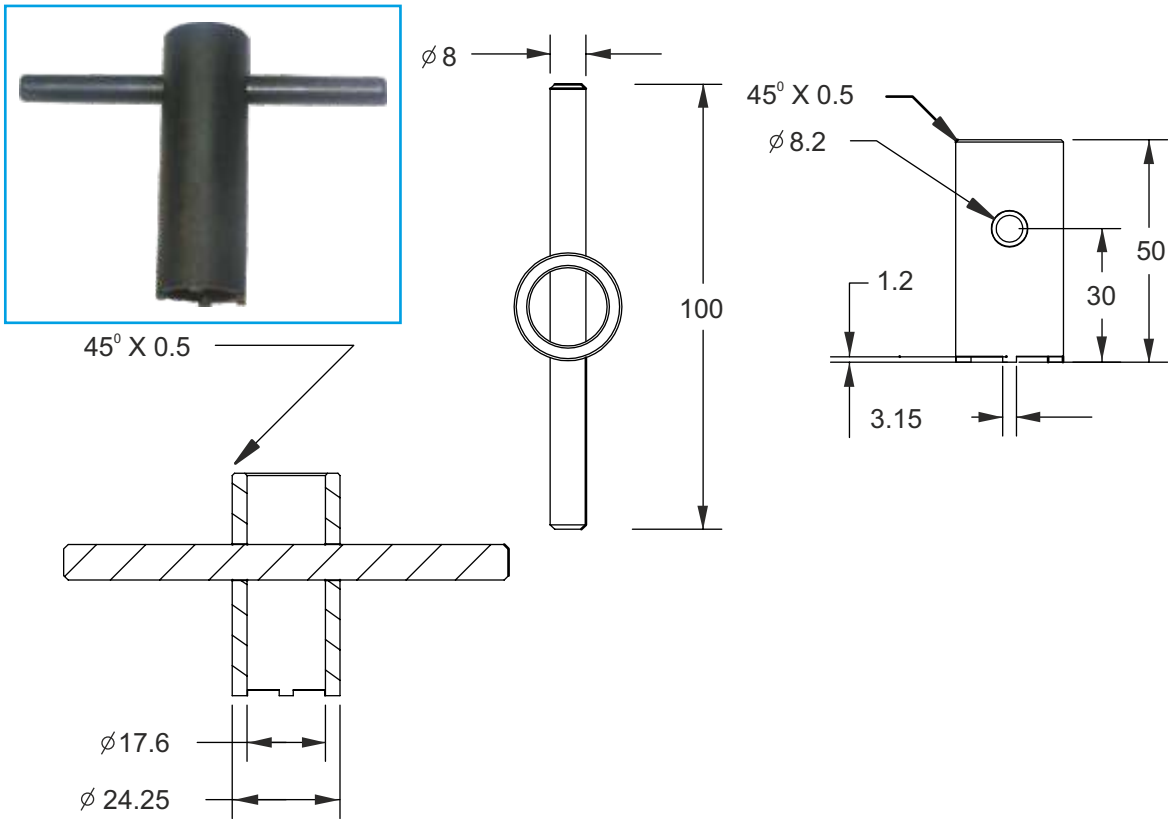
Operating Temperature Range: -55⁰ C TO 85⁰ C

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

Amphenol 164-229-6 & 164-229

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

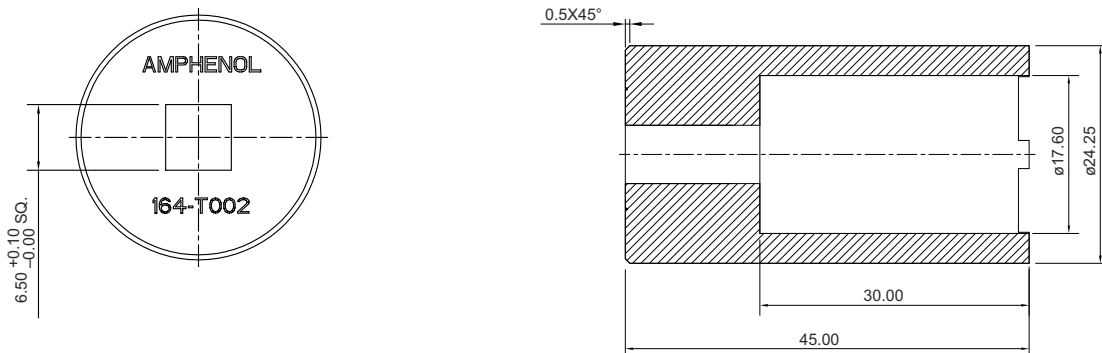
Tightening Spanner (164-T001)
(Panel Nut Tightening For 164-183 Connector)



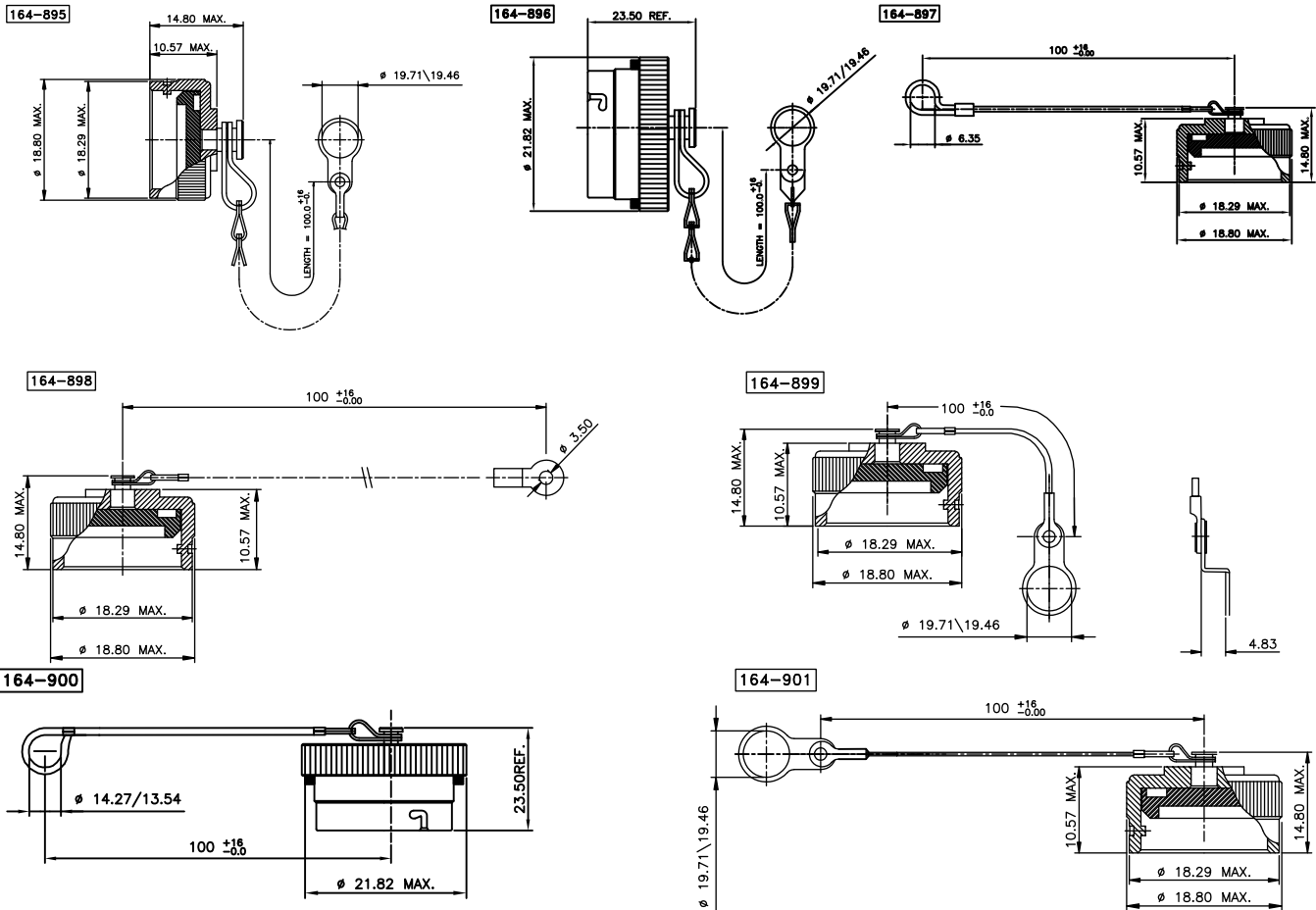
Tightening Spanner (164-T002)
(Panel Nut Tightening For 164-183 Connector - Torque Wrench Provision)



Ordering Part No. - 164- T002



Accessories - Caps For 5 & 6 Pin Connectors



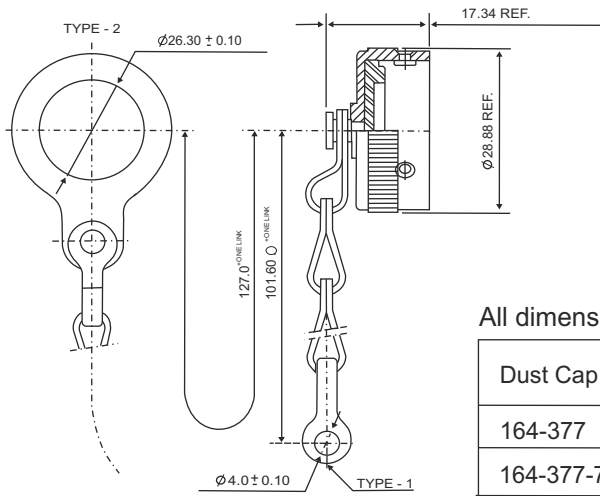
ORDERING INFORMATION FOR 164 DUST CAP

- 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

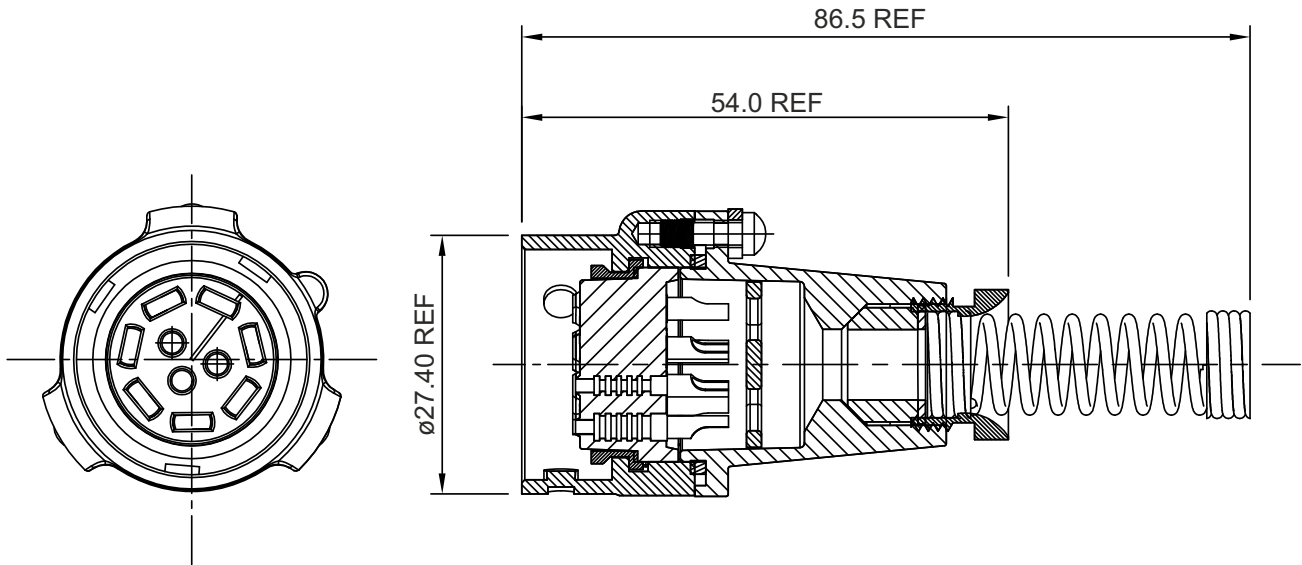
5. Environmental

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

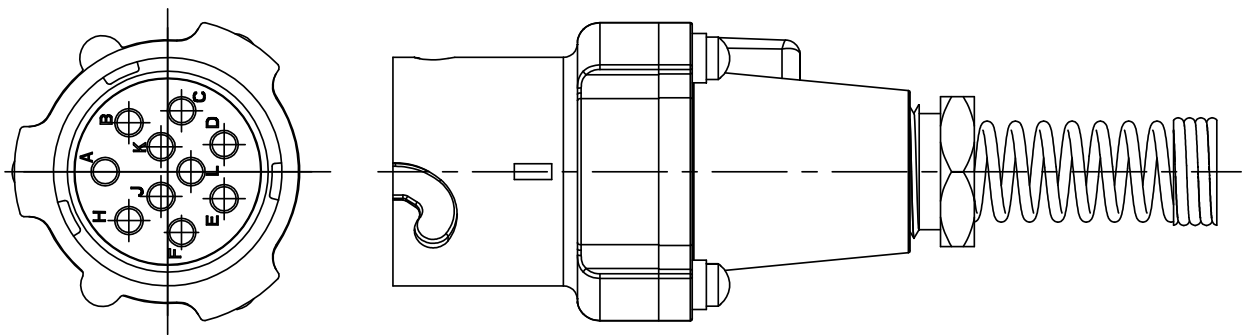
6. Ordering Information

| 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 |

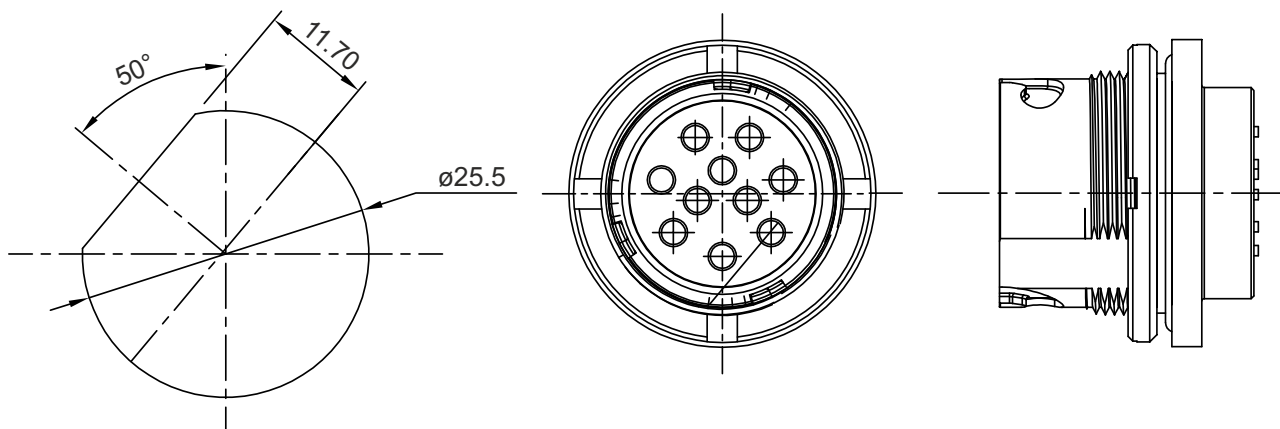
164-77/U Plug With Rigid Contacts, Solder Pocket Terminal, Straight Rear Shell



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

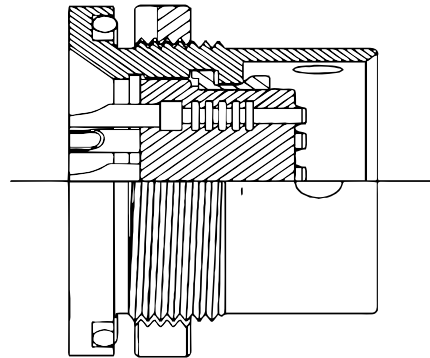


164-79/U Panel Mount Receptacle With Non Rigid Contacts, Solder Pocket Terminal

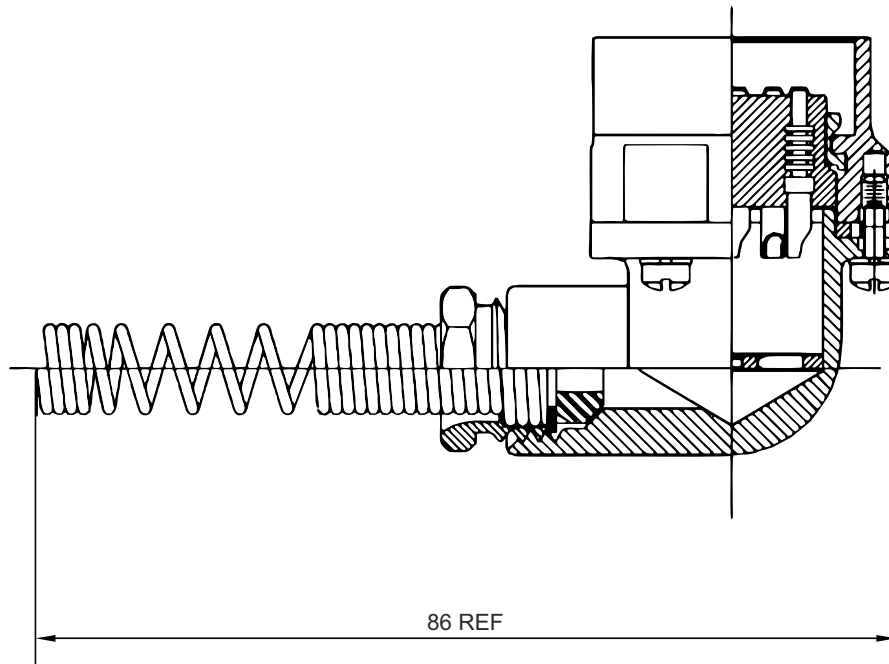


Recommended Panel Cut Out

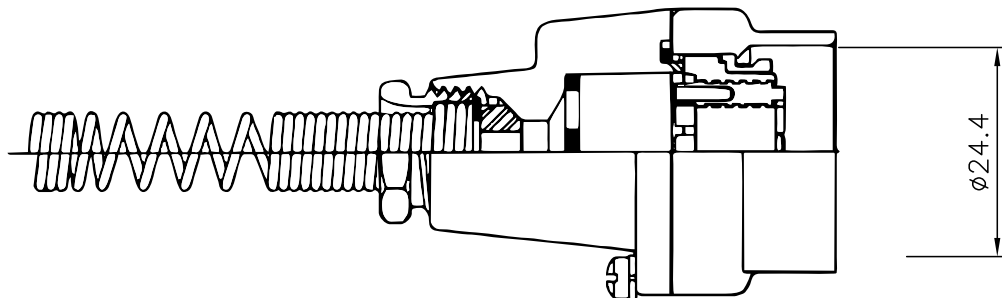
164-126/U Panel Mount Plug With Rigid Contacts, Solder Pocket Terminal

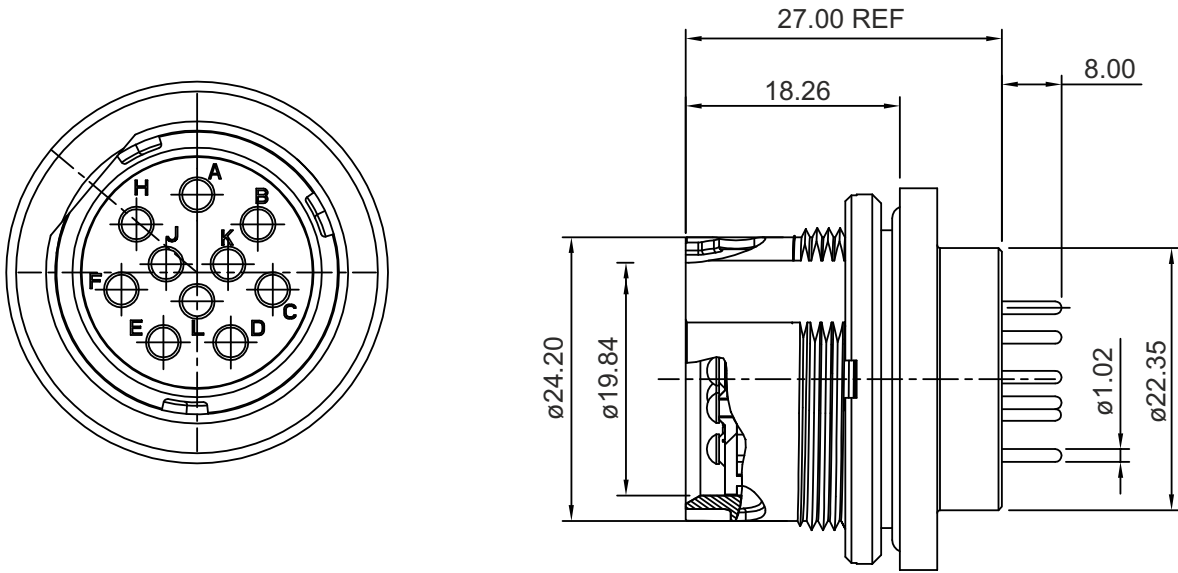


164-127/U Plug With Rigid Contacts, Solder Pocket Terminal, Right Angled Rear Shell

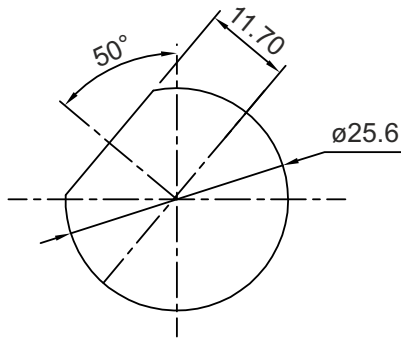


164-161/U Plug With Rigid Contacts, Solder Pocket Terminal, Right Angled Rear Shell

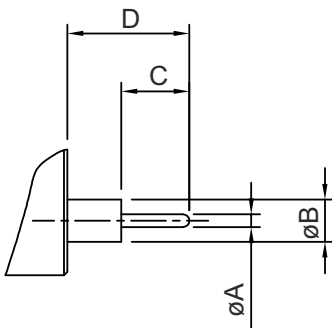




164-79/U—P PLAIN PIN DESIGN



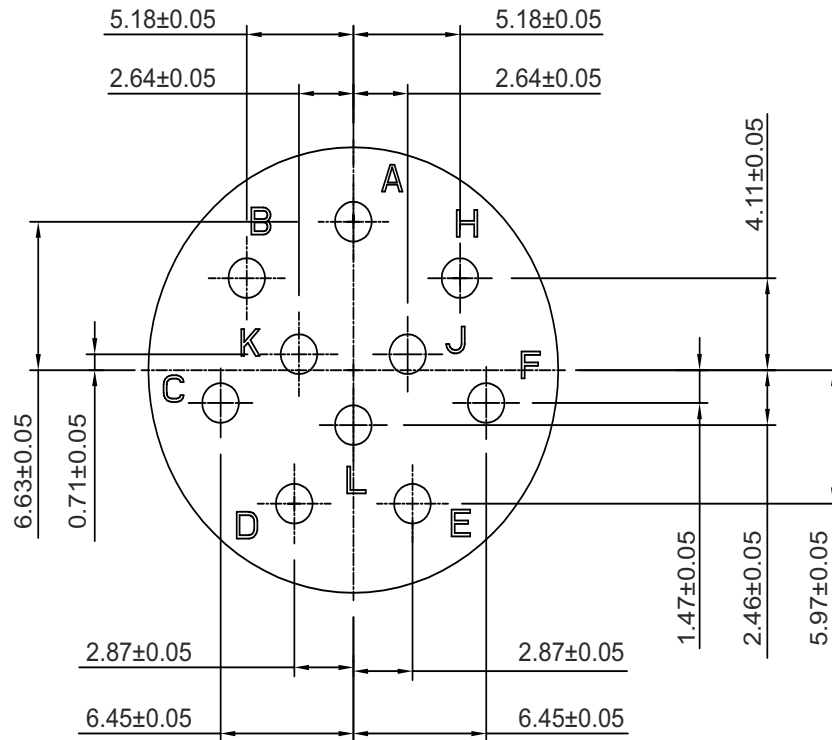
RECOMANDED PANEL CUT OUT



| MODIFIER(XX) | øA | øB | 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 |

164-79/U—PL—XX STEPPED PIN DESIGN

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