

**Series 1.6/5.6 mS (75 Ohm)**

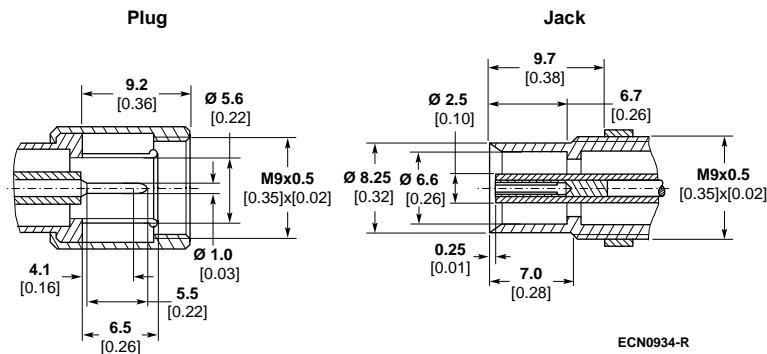
**General**

The Series 1.6/5.6 mS connectors have been modified to incorporate improved technical advantages. Transmission values have been greatly improved while maintaining the proven positive characteristics of the previous generations. All

types of this new "third generation" Series 1.6/5.6 mS connectors are connection-compatible with their predecessor.

Today's PCM technology demands place the Series 1.6/5.6 mS connectors as a most suitable component for transmission of high bit rates.

Connectors are available in straight and angled versions as well as with different mechanisms for screw (type A), snap-on (type B), slide-in (type C), and latching (type F) coupling. All connectors of different coupling mechanisms are compatible with each other.



The connectors are designed according to the pin-socket principle. The contacts are partially gold-plated, ensuring long service life and stable contact resistance for a high number of intermateability cycles.

The inner conductor parts are secured so that they cannot be displaced. The insulating parts are made of PEEK (polyetheretherketone) or PC (polycarbonate).

The cable inner conductors are soldered on, while the outer conductors are screwed or crimped on. Also, cable clamp which is independent of the braid clamping secures the connection point against tensile stressing for both methods of connection.

In addition, assembly-friendly connectors with full crimp and IDC (Insulation Displacement Contact) connection are included within

the scope of delivery. The connectors are characterized by high mechanical strength and low space requirement.

Connection possibilities exist for a number of different cables, including highly-flexible cable types (with foam insulation) with low attenuation or small diameter. Terminations and adapters (see also measurement accessories) round out the spectrum.

**Between Series Adapters**  
For Series 1.6/5.6 Adapters please see Pages 255-264.

**Series 1.6/5.6 mS (75 Ohm) (Continued)**

**Technical data**

**Electrical and mechanical characteristics in accordance with CECC 22240**

**Characteristic impedance** — 75 Ω

**Frequency range** — up to 8 GHz

**Reflection factor<sup>1</sup>, referred to** — flexible cables, straight types —

up to 1 GHz,  $r \leq 0.02$

up to 4 GHz,  $r \leq 0.06$

up to 8 GHz,  $r \leq 0.10$

flexible cables, angled types —

up to 1 GHz,  $r \leq 0.04$

up to 2 GHz,  $r \leq 0.06$

up to 4 GHz,  $r \leq 0.10$

**Insulation resistance** —

initial value,  $\geq 10 \text{ G}\Omega$

after stressing,  $\geq 1 \text{ G}\Omega$

**Screening effectiveness** —

(straight screw connector at 1 GHz)

$\geq 100 \text{ dB}$

**Inner conductor contact**

**resistance** — after stressing  $\leq 8 \text{ m}\Omega$

**Outer conductor continuity** — after

stressing  $\leq 4 \text{ m}\Omega$

**Voltage proof<sup>2</sup>** —

flexible cables (RG 59) —

at sea level, 1.5 kV, 50 Hz

at 20 km altitude, 300 V, 50 Hz

**Working voltage<sup>2</sup>** —

flexible cables (RG 59) —

at sea level, 500 V, 50 Hz

at 20 km altitude, 125 V, 50 Hz

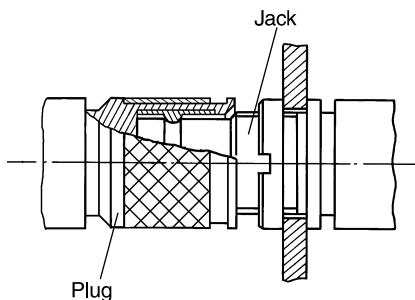
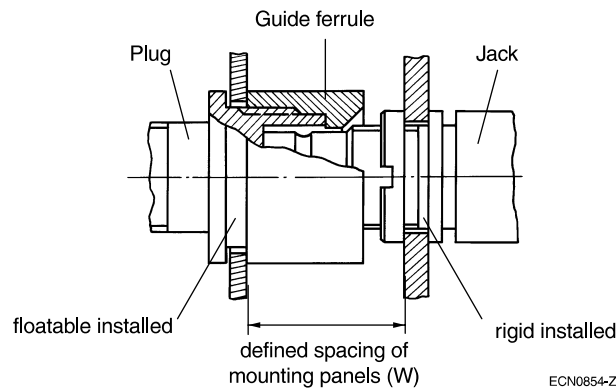
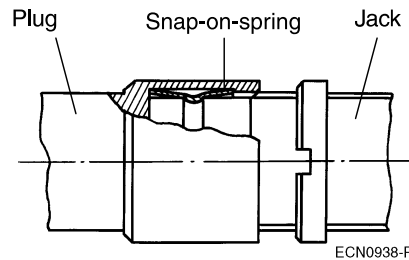
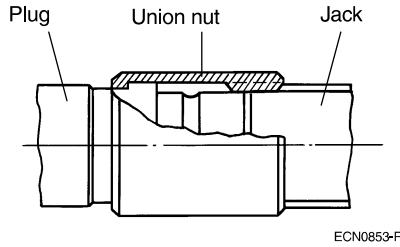
**Service life** — 500 cycles

**Climatic category** — 40/85/21

<sup>1</sup> Guideline values, depending on cable type and connector style.

<sup>2</sup> Some cable types suitable for use with these connectors have lower characteristic values than specified here.

**Coupling Types**



**Type A**

Screw coupling; version with union nut

This type permits the plug and jack to be screwed together manually by means of a union nut secured to the plug manually, thus preventing the coupling from being pulled apart. This is necessary for readily accessible locations, front panel test points and cable connections.

**Type B**

Snap-on coupling (push-pull)

Connectors of this type offer fast make/break. They can be used for test and maintenance applications and also if there is lack of space and connectors with screw coupling cannot be used.

**Type C**

Slide-in coupling; version with centering ferrule

In this type of coupling, the plug features a guide ferrule with a conical entry surface. This ensures that the floatable bulkhead plugs with cable connection make a reliable electrical connection to the rigid installed jack. Examples of this are single and multi-contact connections of slide-in applications. "W" denotes the allowed spacing of the mounting panel for satisfactory contact when the connection is made.

**Type F**

Latching coupling (Quick Lock)

In this version, the cable plugs bear a funnel ferrule with built-in spring which snaps into a groove on the jack, simultaneously locking the connection. The connec-

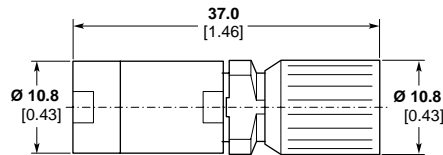
tion can be easily separated by lightly pulling the outer sleeve of the plug. This type of coupling provides the same amount of axial tensile strength as the screw coupling, but can be used with a higher packing density.



## RF Coax Connectors

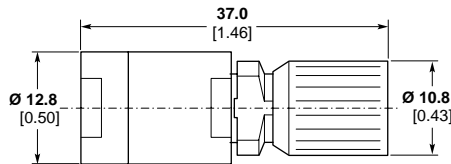
### Series 1.6/5.6 mS (75 Ohm) (Continued)

#### Plugs, Solder/Clamp



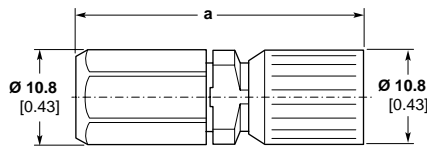
ECN0948-W

Cable	Coupling Type	Ø Max.	Part No.
2YCCY 0.7/4.4	A	7.8 0.31	1393682-1



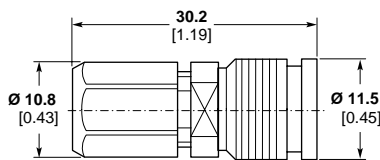
ECN0949-5

Cable	Coupling Type	Ø Max.	Part No.
2YCCY 1.0/6.5 2YC(mS)CY 1.0/6.5	A	9.8 0.31	1393682-2



ECN0950-8

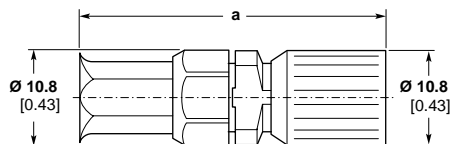
Cable	Coupling Type	Dim. a	Ø Max.	Part No.
2YCY 0.4/2.5	A	30.7 1.21	4.1 0.16	1-1393682-1
2YCCY 0.4/2.5	A	30.7 1.21	4.8 0.19	1-1393682-2
2YC(mS)CY 0.4/2.5	A	30.7 1.21	5.0 0.20	
2YCY 0.7/4.4	A	32.9 1.30	6.1 0.24	1-1393682-3
RG 59	A	32.9 1.30	6.25 0.25	
2YC(mS)CY 0.5/3.0	A	32.9 1.30	6.2 0.24	



ECN0951-G

Cable	Coupling Type	Ø Max.	Part No.
02Y(St)CY 0.45/2.0	F	3.6 0.14	1393681-8

#### Plugs, Solder/Crimp



ECN0953-X

Cable	Coupling Type	Dim. a	Ø Max.	Part No.
RG 179	A	32.5 1.28	2.6 0.105	1393680-2
2YCCY 0.4/2.5	A	32.5 1.28	4.8 0.19	1393680-3
2YC(mS)CY 0.4/2.5	A	35.5 1.40	5.0 0.20	
2YC(mS)CY 0.5/3.0	A	35.5 1.40	6.2 0.24	1393680-4
2YCY 0.7/4.4	A	35.5 1.40	6.1 0.24	1393680-5
02Y(St)CY 0.45/2.0	A	32.5 1.28	3.6 0.14	1393680-9

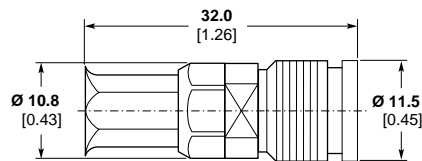


## RF Coax Connectors

### Series 1.6/5.6 mS (75 Ohm)

#### Plugs, Solder/Crimp

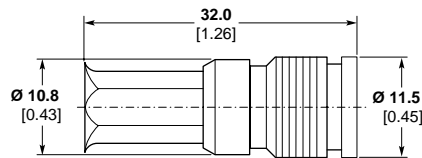
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ECN0956-M

#### Version with Preassembled Insulation

Cable	Coupling Type	Ø Max.	Part No.
02Y(St)CY 0.45/2.0	F	3.6 0.14	1393672-3

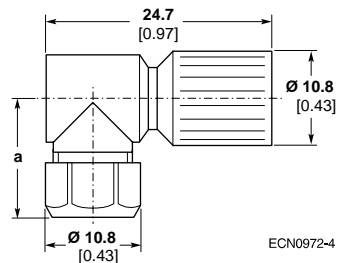


ECN0955-E

#### Preassembled Isolation Parts

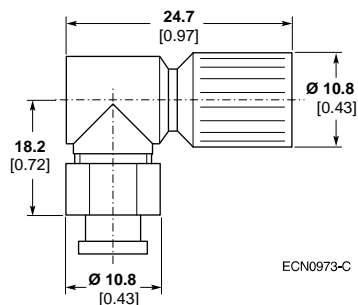
Cable	Coupling Type	Ø Max.	Part No.
02Y(St)CY 0.45/2.0	F	3.6 0.14	1393672-9

#### Right Angle Plugs, Solder/Crimp



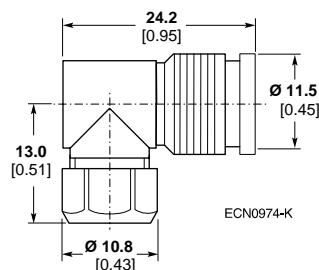
ECN0972-4

Cable	Coupling Type	Dim. a	Ø Max.	Part No.
2YCCY 0.4/2.5	A	13.0 0.51	4.8 0.19	2-1393682-0
2YC(mS)CY 0.4/2.5	A	13.0 0.51	5.0 0.20	
2YCY 0.7/4.4	A	15.8 0.62	6.1 0.24	2-1393682-2
RG 59	A	15.8 0.62	6.25 0.25	
2YC(mS)CY 0.5/3.0	A	15.8 0.62	6.2 0.24	



ECN0973-C

Cable	Coupling Type	Ø Max.	Part No.
RG 179	A	2.67 0.105	2-1393682-3



ECN0974-K

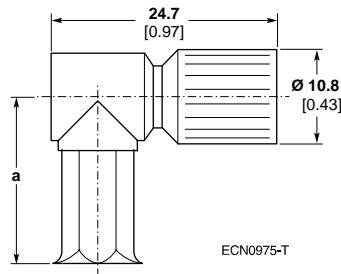
Cable	Coupling Type	Ø Max.	Part No.
02Y(St)CY 0.45/2.0	F	3.6 0.14	1-1393681-0



## RF Coax Connectors

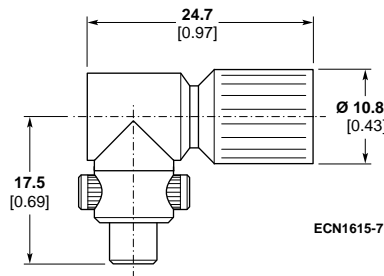
### Series 1.6/5.6 mS (75 Ohm) (Continued)

#### Right Angle Plugs, Solder/Crimp



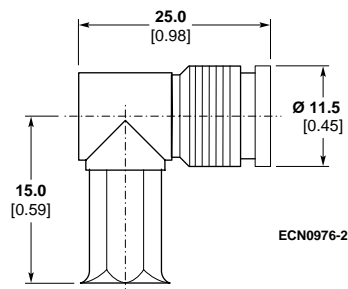
Cable	Coupling Type	Dim. a	Ø Max.	Part No.
2YCCY 0.4/2.5	A	15.0 0.59	4.8 0.19	1-1393680-3
2YC(mS)CY 0.4/2.5	A	15.0 0.59	5.0 0.20	
02Y12YC(mS)C6Y 0.45/2.0	A	15.0 0.59	4.0 0.16	1-1393680-6
02Y(St)CY 0.45/2.0	A	15.0 0.59	3.6 0.14	1-1393680-8

#### Right Angle Plugs, IDC Connection



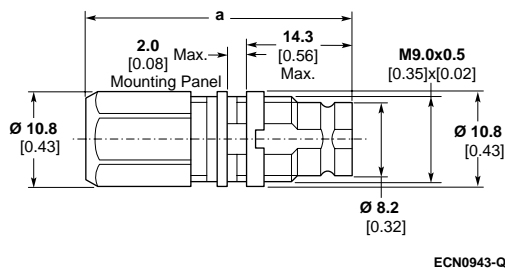
Cable	Coupling Type	Ø Max.	Part No.
02Y(St)CY 0.45/2.0	A	3.6 0.14	1393757-9
2YCY 0.4/2.0	A	4.1 0.16	1393757-8

#### Right Angle Plug, Solder/Crimp



Cable	Coupling Type	Ø Max.	Part No.
02Y(St)CY 0.45/2.0	F	3.6 0.14	1393672-5

#### Bulkhead Jacks, Solder/Clamp



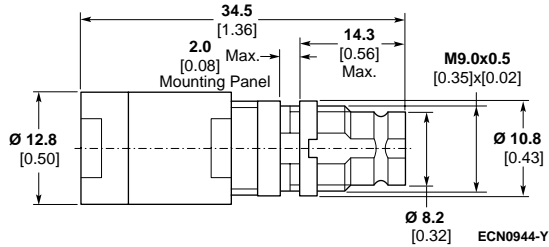
Cable	Coupling Type	Dim. a	Ø Max.	Part No.
2YCY 0.4/2.5	A, B, F	28.1 1.11	4.1 0.16	3-1393682-2
2YCCY 0.4/2.5	A, B, F	28.1 1.11	4.8 0.19	3-1393682-3
2YC(mS)CY 0.4/2.5	A, B, F	28.1 1.11	5.0 0.20	
2YCY 0.7/4.4	A, B, F	30.4 1.20	6.1 0.24	3-1393682-5
RG 59	A, B, F	30.4 1.20	6.25 0.25	
2YC(mS)CY 0.5/3.0	A, B, F	30.4 1.20	6.2 0.24	



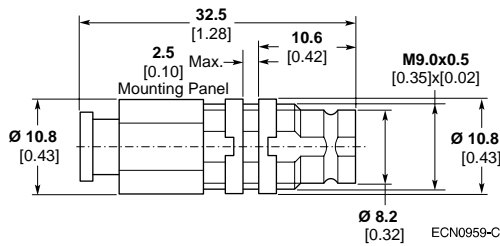
## RF Coax Connectors

### Series 1.6/5.6 mS (75 Ohm) (Continued)

#### Bulkhead Jacks, Solder/Clamp (Continued)

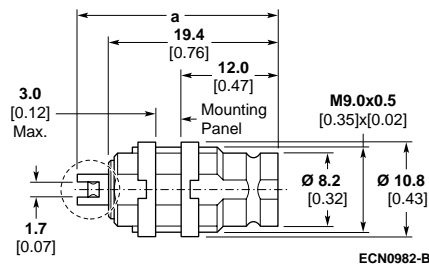


Cable	Coupling Type	Ø Max.	Part No.
2YCCY 1.0/6.5	A, B, F	9.8 0.38	1393682-4
2YC(mS)CY 1.0/6.5	A, B, F	9.8 0.38	



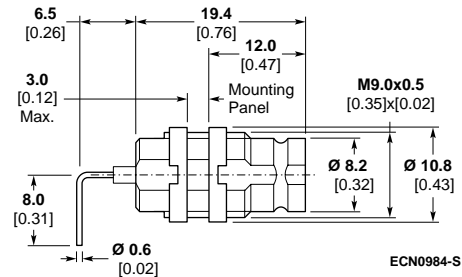
Cable	Coupling Type	Ø Max.	Part No.
RG 179	B, C, F	2.67 0.105	4-1393682-2

#### Bulkhead Jacks, Solder



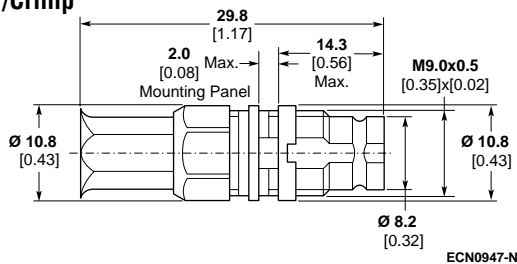
Dim. a	Ø Max.	Part No.
22.3* 0.88	A, B, C, F	1-1393681-1
23.5 0.93	A, B, C, F	1-1393681-9

\*Without soldering tags on outer conductor, dimension a up to inner conductor end.

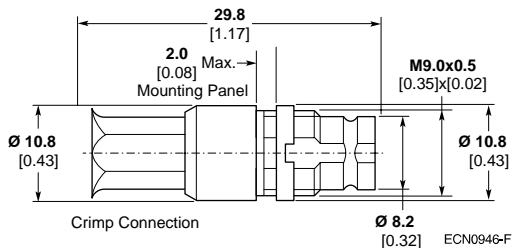


Coupling Type	Part No.
A, B, C, F	1-1393681-3

#### Bulkhead Jacks, Solder/Crimp



Cable	Coupling Type	Ø Max.	Part No.
RG 179	A, B, F	2.67 0.105	2-1393680-2
02Y12YC(mS)C6Y 0.45/2.0	A, B, F	4.0 0.16	2-1393680-4
06YCC(St)6Y 0.4/1.6	A, B, F	3.3 0.13	2-1393680-5
02Y(St)CY 0.45/2.0	A, B, F	3.6 0.14	1393672-6



With preassembled insulation parts

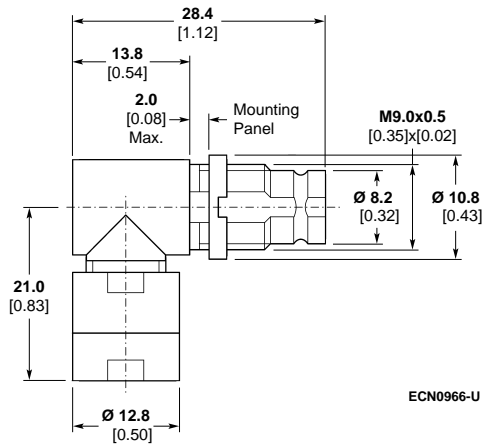
Cable	Coupling Type	Ø Max.	Part No.
02Y(St)CY 0.45/2.0	A, B, F	3.6 0.14	1-1393672-4



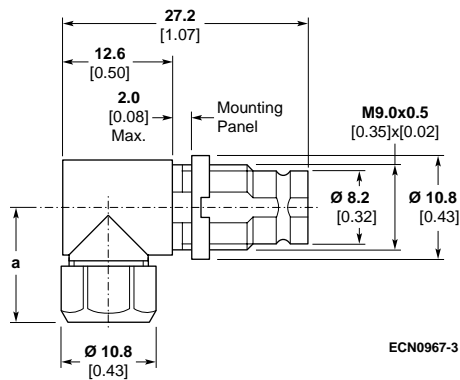
## RF Coax Connectors

### Series 1.6/5.6 mS (75 Ohm) (Continued)

#### Right Angle Bulkhead Jack, Solder/Clamp

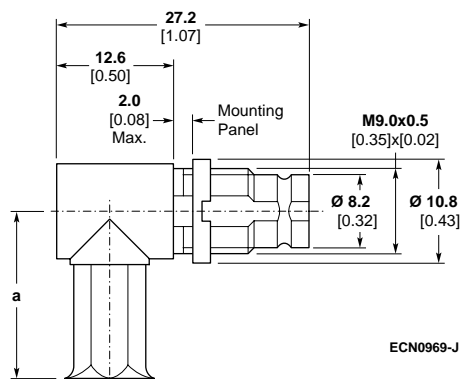


Cable	Coupling Type	Ø Max.	Part No.
2YCCY 1.0/6.5	A, B, F	9.8 0.39	1393682-8
2YC(mS)CY 1.0/6.5	A, B, F	9.8 0.39	



Cable	Coupling Type	Dim. a	Ø Max.	Part No.
02Y(St)CY 0.45/2.0	A, B, F	13.0 0.51	3.6 0.14	4-1393682-9
2YCCY 0.4/2.5	A, B, F	13.0 0.51	4.8 0.19	4-1393682-6
2YC(mS)CY 0.4/2.5	A, B, F	13.0 0.51	5.0 0.20	
2YCY 0.7/4.4	A, B, F	15.8 0.62	6.1 0.24	4-1393682-8
RG 59	A, B, F	15.8 0.62	6.25 0.25	
2YC(mS)CY 0.5/3.0	A, B, F	15.8 0.62	6.2 0.24	

#### Right Angle Bulkhead Jack, Solder/Crimp



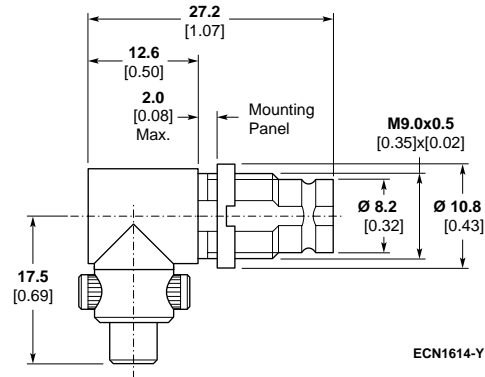
Cable	Coupling Type	Dim. a	Ø Max.	Part No.
RG 179	A, B, F	15.0 0.59	2.67 0.105	3-1393680-0
2YCCY 0.4/2.5	A, B, F	15.0 0.59	4.8 0.19	3-1393680-2
2YC(mS)CY 0.4/2.5	A, B, F	15.0 0.59	5.0 0.20	
02Y12YC(mS)C6Y 0.45/2.0	A, B, F	15.0 0.59	4.0 0.16	3-1393680-5
06YCC(St)6Y 0.4/1.6	A, B, F	15.0 0.59	3.3 0.13	4-1393682-3
02Y(St)CY 0.45/2.0	A, B, F	15.0 0.59	3.6 0.14	3-1393680-7



## RF Coax Connectors

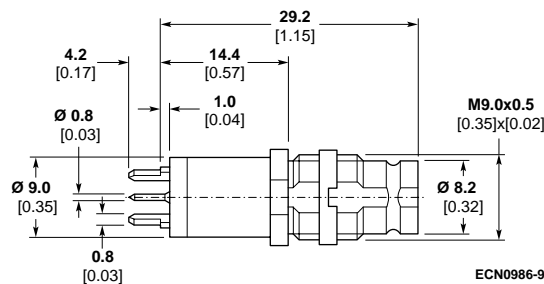
### Series 1.6/5.6 mS (75 Ohm) (Continued)

#### Right Angle Bulkhead Jack, IDC Connection



Cable	Coupling Type	Ø Max.	Part No.
02Y(St)CY 0.45/2.0	A, B, F	3.6 0.14	1-1393757-6

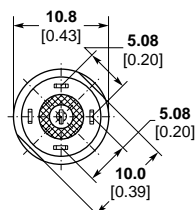
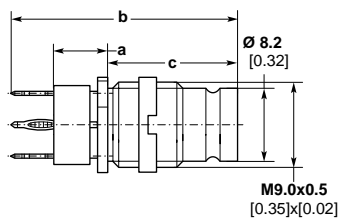
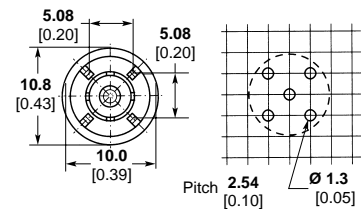
#### Vertical PC Board Mount Jack



Coupling Type	Part No.
A, B, F	1-1393681-6

View A

Recommended  
Mounting Holes

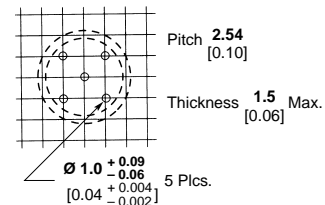


ECN1616-F

#### Inner- and outer conductor, press-fit

Coupling Type	Dim. a	Dim. b	Dim. c	Part No.
A, B, F	6.0 0.24	27.2 1.07	16.4 0.65	2-1393757-0

#### Recommended Mounting Holes



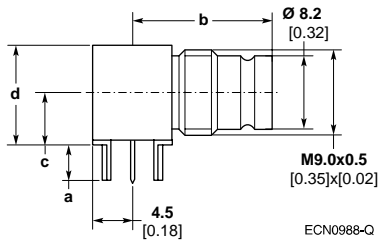




## RF Coax Connectors

### Series 1.6/5.6 mS (75 Ohm) (Continued)

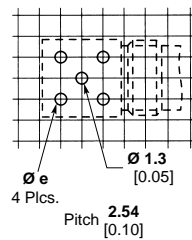
#### Right Angle PC Board Mount Bulkhead Jack



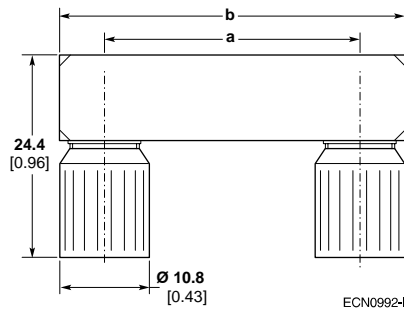
Coupling Type	Dim. a	Dim. b	Dim. c	Dim. d	Dim. e	Part No.
A, B, F	4.0 0.16	16.0 0.63	6.0 0.24	10.75 0.42	1.3 0.05	2-1393681-1
A, B, F	3.3 0.13	16.0 0.63	6.0 0.24	10.75 0.42	1.3 0.05	2-1393681-2
A, B, F	3.7 0.15	22.9 0.90	6.45 0.25	11.25 0.44	1.8 0.07	2-1393681-3*

\*With positioning and snap-on system onto PC board

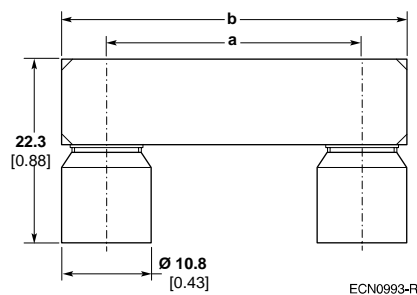
#### Recommended Mounting Holes



#### U-link Plug/Plug



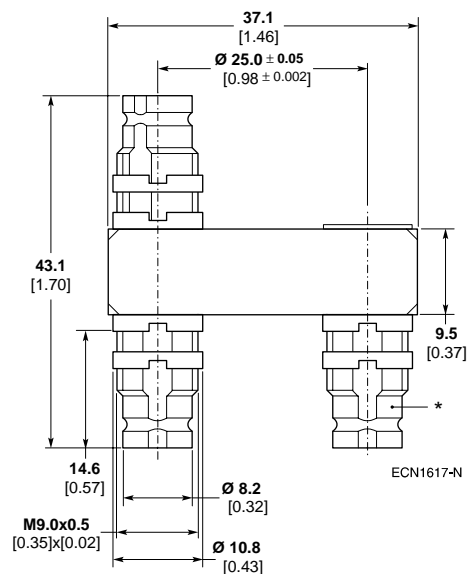
Coupling Type	Dim. a ± 0.1 [0.004]	Dim. b Max.	Part No.
A	15.0 0.59	26.5 1.04	1393681-1
A	30.0 1.18	41.5 1.63	1393681-2



Coupling Type	Dim. a ± 0.1 [0.004]	Dim. b Max.	Part No.
B	15.0 0.59	26.5 1.04	1393681-3
B	30.0 1.18	41.5 1.63	1393681-4

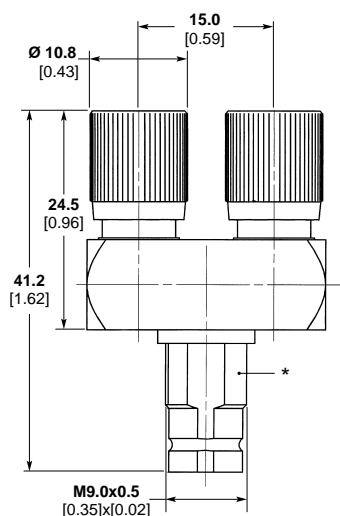
**Series 1.6/5.6 mS (75 Ohm) (Continued)**

**U-link Jack/Jack/Jack**



Coupling Type	Part No.
A, B, F	2-1393681-5

**U-link Plug/Plug/Jack**



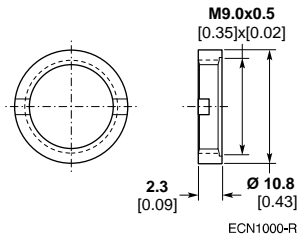
Coupling Type	Part No.
A, B, F	1393679-1

\*Filtered mating face

**Series 1.6/5.6 mS (75 Ohm) (Continued)**

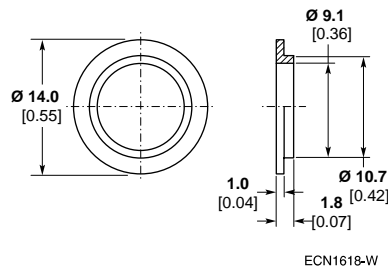
**Accessories**

These components are provided when bulkhead jack part numbers are ordered, but can also be ordered separately.



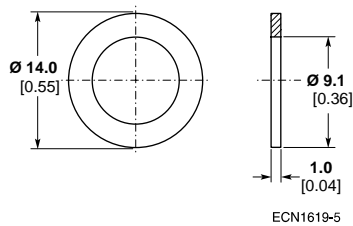
**Threaded ring for installation of bulkhead jacks**

<b>Part No.</b>
<b>1-1393562-0</b>



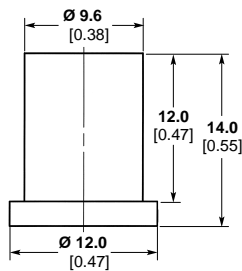
**Isolation washer**

<b>Part No.</b>
<b>1393562-5</b>



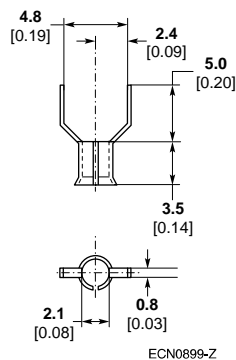
**Isolation washer**

<b>Part No.</b>
<b>1393562-6</b>



**Cap for sealing and screening of jacks**

<b>Part No.</b>
<b>1393562-8</b>



**Soldering aid (sleeve) for jack (1-1393681-9) with solder termination**

<b>Part No.</b>
<b>2-1393562-2</b>

Cable stripping and installation example: see Part number 2-1393562-2 under "Series 1.0/2.3", page 130.