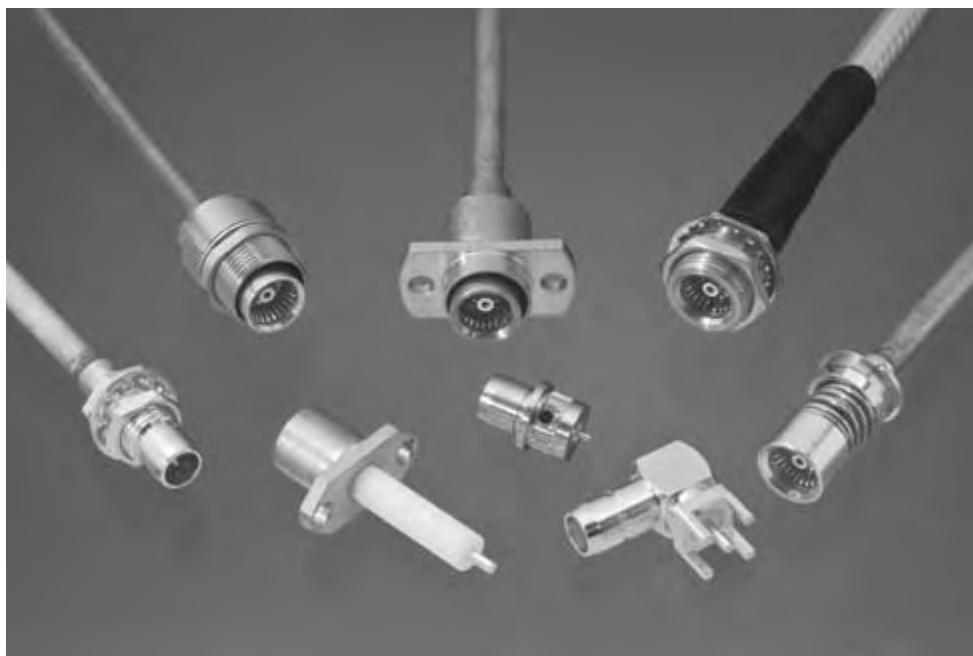


## OSP Miniature Modular Blind Mate Connectors

### Product Facts

- Interface designed for multiple interconnects
- For high performance microwave system requirements
- Module to module, module to motherboard, fixed and float mount
- Bulkhead or panel mount
- For flexible and semi-rigid cable



OSP miniature connectors for semi-rigid cable meet high performance requirements for microwave multiple interconnects. Standard units are available in bulkhead or panel mount designs for either direct solder or solderless compression crimp attachment. Complete tooling for both versions is located in the Tooling Section of this catalog.

Jack connectors are available in either float or rigid mount. Rigid mount units will function to specifications up to  $\pm .10$  [.004] radial misalignment with the mating plug connector. Applications requiring greater than  $\pm .10$  [.004] radial misalignment can use either the float design or floating connector plates with guide pins.

The solderless compression crimp attachment meets

high performance requirements for microwave system applications. The cable attachment is permanent and highly reliable.

Ease of assembly permits users unskilled in soldering techniques to rapidly produce cable assemblies with consistently excellent mechanical and electrical performance.

## OSP Miniature Modular Blind Mate Connectors (Continued)

The specifications given refer specifically to mated pair of Part Numbers 1059410-1 and 1059402-1 (RG 402) and 1059412-1 and 1059404-1 (RG 405). Specifications on other connectors are available on request.

The general electrical, mechanical and environmental specifications in the following table are recommended for procurement documents or drawings.

### Engineering Data

|                      |                |
|----------------------|----------------|
| Impedance —          | 50 ohms        |
| Frequency —          | dc to 22.0 GHz |
| Temperature Rating — | -65° to 125° C |

### Electrical

| VSWR —                                   | RG 402 (.141) Semi-Rigid                       | RG 405 (.085) Semi-Rigid         |
|------------------------------------------|------------------------------------------------|----------------------------------|
| dc - 18.0 GHz                            | 1.02 + .005f (GHz)                             | 1.05 + .005f (GHz)               |
| 18.0 - 22.0 GHz                          | 1.02 + .008f (GHz)                             | 1.05 + .009f (GHz)               |
| RF Transmission Loss —                   | .03 x $\sqrt{f}$ (GHz)                         | .03 x $\sqrt{f}$ (GHz)           |
| Insulation Resistance —                  | 5,000 megohms min.                             | 5,000 megohms min.               |
| Contact Resistance —                     |                                                |                                  |
| Center Contact                           | 2.0 milliohms max.                             | 2.0 milliohms max.               |
| Outer Contact                            | 2.0 milliohms max.                             | 2.0 milliohms max.               |
| Outer Contact to Cable                   | 0.5 milliohms max.                             | 0.5 milliohms max.               |
| Dielectric Withstanding Voltage —        | 1500 volts RMS                                 | 1000 volts RMS                   |
| Corona Extinction Voltage at 70,000 Ft.— | 375 volts min.                                 | 335 volts min.                   |
| RF High Potential at 5 MHz —             | 1,000 volts RMS                                | 670 volts RMS                    |
| RF Leakage Interface Only —              | -(90-fGHz) dB min. (fully mated)               | -(90-fGHz) dB min. (fully mated) |
| Power Handling —                         | 300W at 3 GHz (sea level) and room temperature |                                  |

### Environmental

|                       |                                              |
|-----------------------|----------------------------------------------|
| Corrosion —           | Method 101, Condition B, MIL-STD-202         |
| Vibration —           | Method 204, Condition D, 20G's, MIL-STD-202  |
| Shock —               | Method 213, Condition I, 100G's, MIL-STD-202 |
| Temperature Cycling — | Method 107, Condition B, MIL-STD-202         |
| Moisture Resistance — | Method 106, MIL-STD-202                      |

### Material

|                   |                                                                       |
|-------------------|-----------------------------------------------------------------------|
| Housing —         | Corrosion resistant steel Type 303 (stainless) per ASTM A484 and A582 |
| Center Contact —  | Beryllium copper per ASTM-B-196                                       |
| Dielectric —      | TFE fluorocarbon per ASTM-D-1457                                      |
| Gasket (O'Ring) — | MIL-P-25732                                                           |

### Mechanical

|                            |                 |
|----------------------------|-----------------|
| Force to Engage —          | 3 pounds max.   |
| Force to Disengage —       | 1.5 pounds max. |
| Center Contact Retention — | 6 pounds min.   |
| Durability —               | 5,000 Cycles    |
| Radial Misalignment —      |                 |
| Rigid Mount                | ±.10 [±.004]    |
| Float Mount                | ±.51 [±.020]    |

### Mating Characteristics

| Jack Connector —      |                        |                                  |
|-----------------------|------------------------|----------------------------------|
| Center Contact Socket | Oversize test Pin —    | .945 + .003 [.0372 + .0001] dia. |
|                       | Test Pin Finish —      | 16 micro inch                    |
|                       | Insertion Depth —      | .76/1.14 [.030/.045]             |
|                       | Number of Insertions — | 3                                |
| Insertion Force       | Test Pin —             | .940 + .003 [.0370 + .0001] dia. |
|                       | Test Pin Finish —      | 16 micro inch                    |
|                       | Insertion Depth —      | 1.27/1.91 [.050/.075]            |
|                       | Insertion Force —      | 3 pounds max.                    |
| Withdrawal Force      | Test Pin —             | .90 + .003 [.0355 - .0001] dia.  |
|                       | Test Pin Finish —      | 16 micro inch                    |
|                       | Insertion Depth —      | 1.27/1.91 [.050/.075]            |
|                       | Withdrawal —           | 1 ounce min.                     |

### Finish

|                  |                                                                                                                |
|------------------|----------------------------------------------------------------------------------------------------------------|
| Center Contact — | Gold plate per MIL-G-45204, Type II, Class 1 over copper plate per MIL-C-14550                                 |
| Housing —        | Gold plate per MIL-G-45204, Typ II, Class 0 over nickel plate per QQ-N-290, Class 2 or passivate per ASTM-A380 |

**All dimensions shown are nominal.  
Contact the factory for specific  
tolerances.**

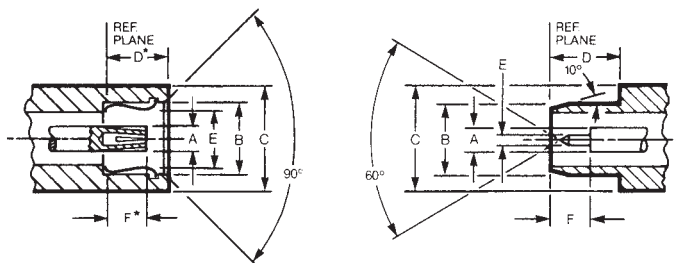
## OSP Miniature Modular Blind Mate Connectors (Continued)

### Interface Mating Dimensions

The connector interface, specifically designed for multiple interconnects, maintains reliable performance over the typical mechanical tolerance required in cost effective packaging.

The interface test data shows excellent performance is maintained with mating gaps up to 0.38 [.015].

Meets MIL-STD-348 Figure 321. Intermateable to BMA Connectors.



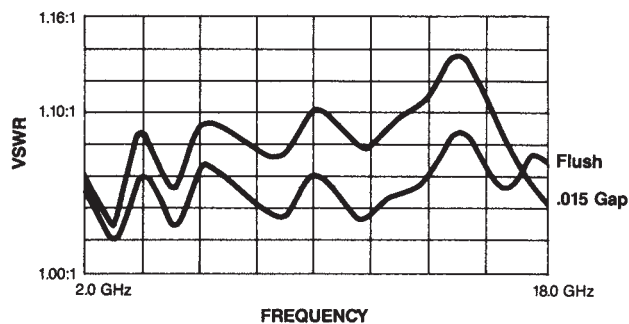
Jack

Plug

| Letter | Dimensions         |
|--------|--------------------|
| A      | 1.78<br>.070 Nom.  |
| B      | 5.72<br>.225 Min.  |
| C      | 7.62<br>.300 Ref.  |
| D      | 5.00<br>.197 Nom.* |
| E      | 5.08<br>.200 Max.  |
| F      | 3.23<br>.127 Max.* |

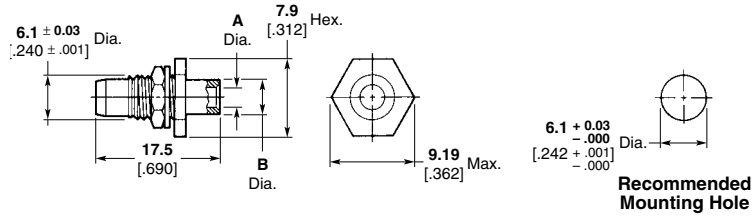
| Letter | Dimensions        |
|--------|-------------------|
| A      | 1.78<br>.070 Nom. |
| B      | 5.33<br>.210 Nom. |
| C      | 7.62<br>.300 Ref. |
| D      | 5.05<br>.199 Min. |
| E      | 0.91<br>.036 Nom. |
| F      | 3.25<br>.128 Min. |

\*With spring bottomed



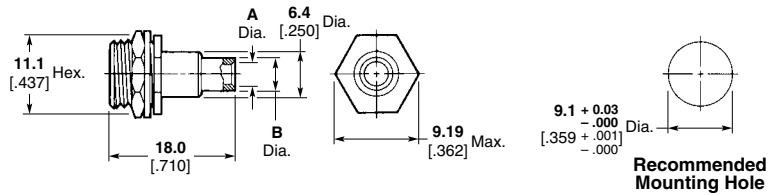
## OSP Miniature Modular Blind Mate Connectors (Continued) For Semi-Rigid Cable, Direct Solder Attachment

### Bulkhead Feedthrough Cable Plug Rear Mount



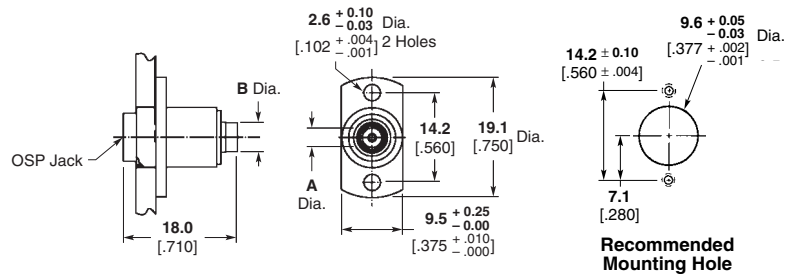
| Cable                    | Plating | Dimensions  |             | Part No.  |
|--------------------------|---------|-------------|-------------|-----------|
|                          |         | A           | B           |           |
| RG 402/U<br>3.58<br>.141 | Gold    | 3.7<br>.144 | 4.6<br>.180 | 1059402-1 |
| RG 405/U<br>2.16<br>.085 | Gold    | 2.3<br>.089 | 3.0<br>.120 | 1059404-1 |

### Bulkhead Feedthrough Cable Jack Rigid Rear Mount



| Cable                    | Plating | Dimensions  |             | Part No.  |
|--------------------------|---------|-------------|-------------|-----------|
|                          |         | A           | B           |           |
| RG 402/U<br>3.58<br>.141 | Gold    | 3.7<br>.144 | 4.6<br>.180 | 1059410-1 |
| RG 405/U<br>2.16<br>.085 | Gold    | 2.3<br>.089 | 3.0<br>.120 | 1059412-1 |

### Flange Mount Cable Jack Floating Rear Mount



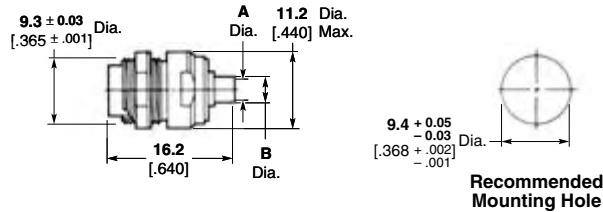
| Cable                    | Dimensions  |             | Part No.  |
|--------------------------|-------------|-------------|-----------|
|                          | A           | B           |           |
| RG 402/U<br>3.58<br>.141 | 3.7<br>.144 | 4.6<br>.180 | 1059453-1 |
| RG 405/U<br>2.16<br>.085 | 2.3<br>.089 | 3.0<br>.120 | 1059456-1 |

Finish: Inner housing that is soldered to cable is gold plated. Outer housing is passivated stainless steel.  
When using semi-rigid cable, it is recommended that a service loop be used to facilitate the float features of the connector.

**Note:** Part Numbers are RoHS compliant except: ♦ Indicates non-RoHS compliant.

## OSP Miniature Modular Blind Mate Connectors (Continued) For Semi-Rigid Cable, Direct Solder Attachment (Continued)

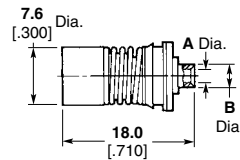
### Low Profile — Bulkhead Feedthrough Cable Jack — Floating Rear Mount



| Cable                    | Plating | Dimensions  |             | Part No.  |
|--------------------------|---------|-------------|-------------|-----------|
|                          |         | A           | B           |           |
| RG 402/U<br>3.58<br>.141 | Gold    | 3.7<br>.144 | 4.6<br>.180 | 1059505-1 |
| RG 405/U<br>2.16<br>.085 | Gold    | 2.3<br>.089 | 3.0<br>.120 | 1059506-1 |

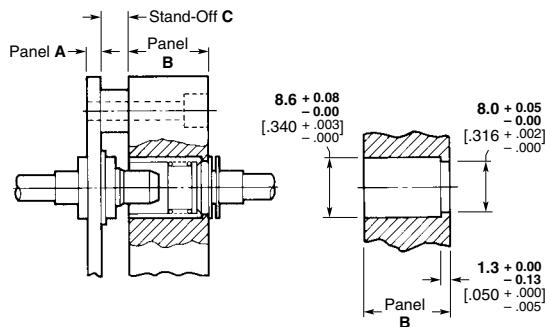
When using semi-rigid cable, it is recommended that a service loop be used to facilitate the float features of the connector.

### Low Profile — Panel Feedthrough Cable Jack — Floating Rear Mount



| Cable                    | Plating | Dimensions  |             | Part No.  |
|--------------------------|---------|-------------|-------------|-----------|
|                          |         | A           | B           |           |
| RG 402/U<br>3.58<br>.141 | Gold    | 3.7<br>.144 | 4.6<br>.180 | 1059465-1 |
| RG 405/U<br>2.16<br>.085 | Gold    | 2.3<br>.089 | 3.0<br>.120 | 1059467-1 |

Recommended removal tool part number 1059774-1 is described in the Tooling Section of this catalog.  
When using semi-rigid cable, it is recommended that a service loop be used to facilitate the float features of the connector.



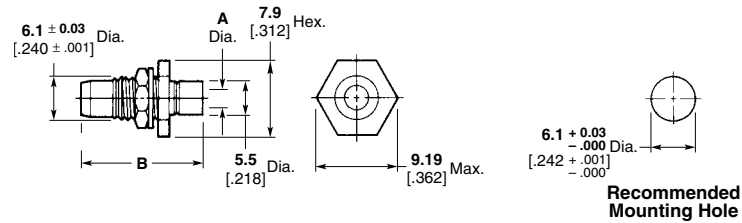
Recommended Mounting Detail

| Panel A ±.003 | Panel B ±.003 | Stand-Off Panel C +.050/-0.000 |
|---------------|---------------|--------------------------------|
| 2.3<br>.090   | 9.5<br>.375   | 7.2<br>.285                    |
| 2.3<br>.090   | 11.1<br>.438  | 5.6<br>.222                    |
| 2.3<br>.090   | 12.7<br>.500  | 4.1<br>.160                    |
| 3.2<br>.125   | 9.5<br>.375   | 6.4<br>.250                    |
| 3.2<br>.125   | 11.1<br>.438  | 4.7<br>.187                    |
| 3.2<br>.125   | 12.7<br>.500  | 3.2<br>.125                    |

**Note:** Part Numbers are RoHS compliant except: ♦ Indicates non-RoHS compliant.

## OSP Miniature Modular Blind Mate Connectors (Continued) For Semi-Rigid Cable, Solderless Compression Crimp Attachment

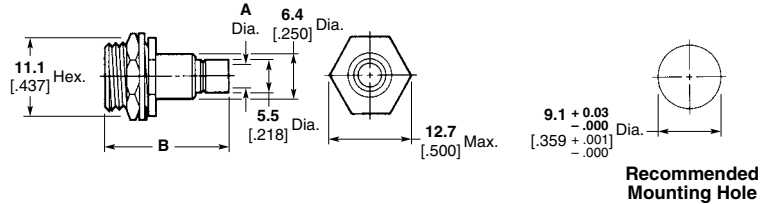
### Bulkhead Feedthrough Cable Plug Fixed Rear Mount



| Cable                    | Plating                          | Dim. A      | Dim. B          |                | Part No.  |
|--------------------------|----------------------------------|-------------|-----------------|----------------|-----------|
|                          |                                  |             | Before Crimping | After Crimping |           |
| RG 405/U<br>2.16<br>.085 | Passivated<br>Stainless<br>Steel | 2.2<br>.088 | 19.8<br>.782    | 17.2<br>.677   | 1059399-1 |

Outline drawing shows after crimp dimensions.

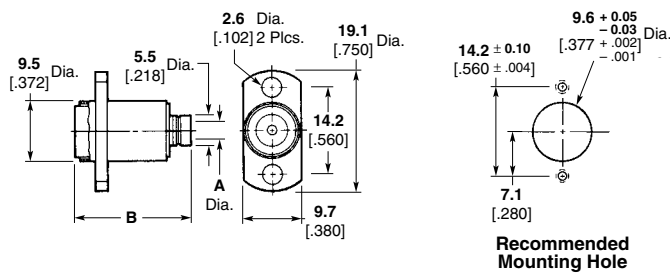
### Bulkhead Feedthrough Cable Jack Fixed Rear Mount



| Cable                    | Plating                          | Dim. A      | Dim. B          |                | Part No.  |
|--------------------------|----------------------------------|-------------|-----------------|----------------|-----------|
|                          |                                  |             | Before Crimping | After Crimping |           |
| RG 402/U<br>3.58<br>.141 | Passivated<br>Stainless<br>Steel | 3.6<br>.143 | 21.1<br>.830    | 18.2<br>.715   | 1059408-1 |

Outline drawing shows after crimp dimensions.

### Flange Mount Cable Jack Floating Rear Mount



| Cable                    | Plating                          | Dim. A      | Dim. B          |                | Part No.  |
|--------------------------|----------------------------------|-------------|-----------------|----------------|-----------|
|                          |                                  |             | Before Crimping | After Crimping |           |
| RG 402/U<br>3.58<br>.141 | Passivated<br>Stainless<br>Steel | 3.6<br>.143 | 22.6<br>.891    | 19.8<br>.780   | 1059451-1 |
| RG 405/U<br>2.16<br>.085 | Passivated<br>Stainless<br>Steel | 2.2<br>.088 | 22.6<br>.891    | 19.8<br>.780   | 1059452-1 |

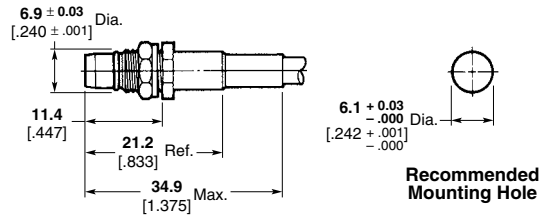
Outline drawing shows after crimp dimensions.

When using semi-rigid cable, it is recommended that a service loop be used to facilitate the float features of the connector.

**Note:** Part Numbers are RoHS compliant except: ♦ Indicates non-RoHS compliant.

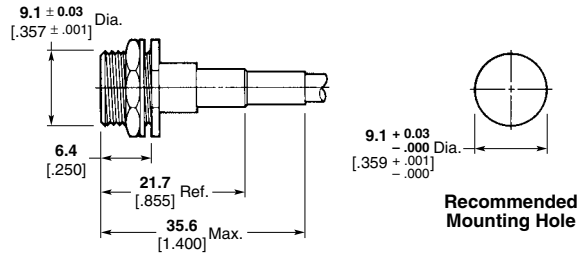
## OSP Miniature Modular Blind Mate Connectors (Continued) For Flexible Cable, Crimp Attachment

### Bulkhead Feedthrough Cable Plug Rear Mount



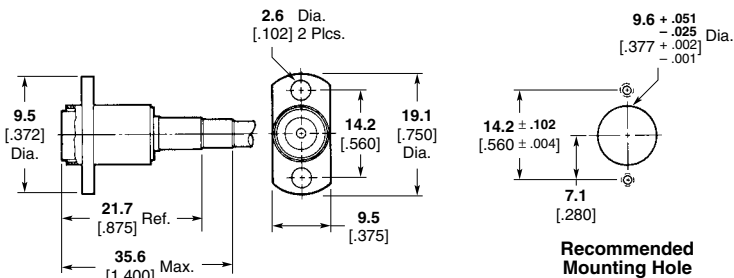
| Cable                        | Plating                    | Part No.  |
|------------------------------|----------------------------|-----------|
| RG 174/U, 179, 187, 188, 316 | Passivated Stainless Steel | 1059523-1 |

### Bulkhead Feedthrough Cable Jack Rigid Rear Mount



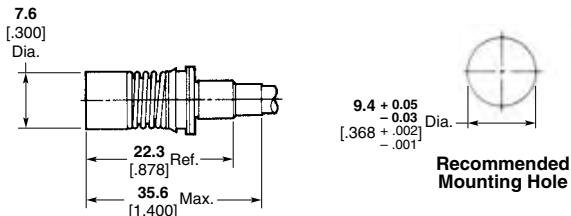
| Cable                  | Plating                    | Part No.  |
|------------------------|----------------------------|-----------|
| RG 55/U, 142, 223, 400 | Passivated Stainless Steel | 1059525-1 |

### Flange Mount Cable Jack Floating Rear Mount



| Cable                        | Plating                    | Part No.  |
|------------------------------|----------------------------|-----------|
| RG 55/U, 142, 223, 400       | Passivated Stainless Steel | 1059540-1 |
| RG 174/U, 179, 187, 188, 316 | Passivated Stainless Steel | 1059541-1 |
| RG 178, Double Braid         | Passivated Stainless Steel | 1058572-1 |

### Low Profile — Panel Feedthrough Cable Jack — Rear Mount



| Cable                        | Plating                    | Part No.  |
|------------------------------|----------------------------|-----------|
| RG 174/U, 179, 187, 188, 316 | Passivated Stainless Steel | 1059551-1 |

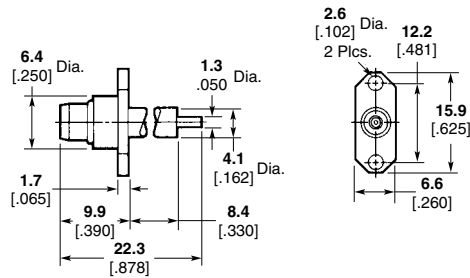
Refer to Recommended Mounting Hole Detail for Semi-Rigid Cable Low Profile Feedthrough Cable Jack.  
Recommended removal tool part number 1059774-1 as described in the Tooling Section of this catalog.

**Note:** Part Numbers are RoHS compliant except: ♦ Indicates non-RoHS compliant.

## OSP Miniature Modular Blind Mate Connectors (Continued) Panel Mount

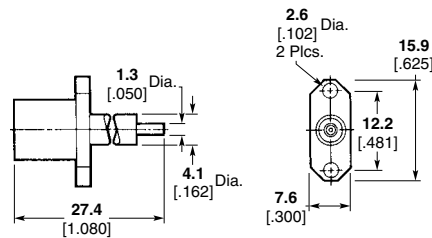
### Straight Terminal

#### 2-Hole Flange Mount Plug Receptacle



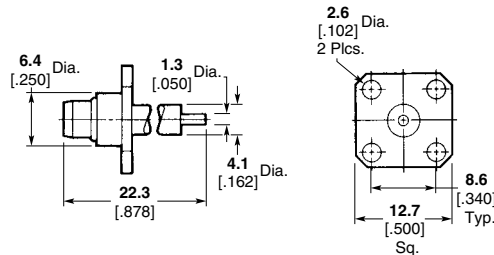
| Plating                          | Part No.  |
|----------------------------------|-----------|
| Passivated<br>Stainless<br>Steel | 1059566-1 |

#### 2-Hole Flange Mount Jack Receptacle



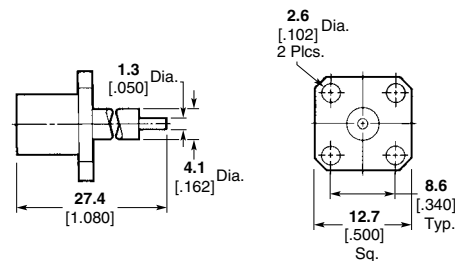
| Plating                          | Part No.  |
|----------------------------------|-----------|
| Passivated<br>Stainless<br>Steel | 1059596-1 |

#### 4-Hole Flange Mount Plug Receptacle



| Plating                          | Part No.  |
|----------------------------------|-----------|
| Passivated<br>Stainless<br>Steel | 1059563-1 |

#### 4-Hole Flange Mount Jack Receptacle



| Plating                          | Part No.  |
|----------------------------------|-----------|
| Passivated<br>Stainless<br>Steel | 1059594-1 |

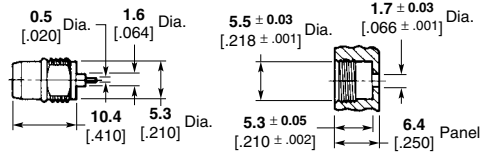
**Note:** Part Numbers are RoHS compliant except: ♦ Indicates non-RoHS compliant.

## OSP Miniature Modular Blind Mate Connectors (Continued)

### Panel Mount (Continued)

#### Straight Terminal

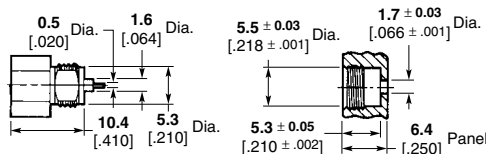
#### Threaded Installation — Panel Feedthrough Plug Receptacle



**Recommended  
Mounting Hole**

| Plating                          | Part No.  |
|----------------------------------|-----------|
| Passivated<br>Stainless<br>Steel | 1059617-1 |

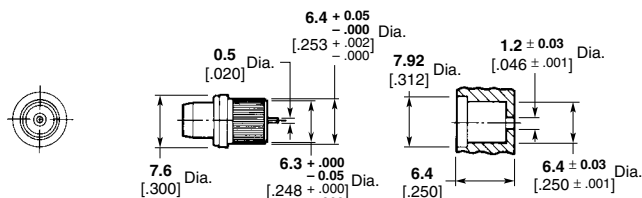
#### Threaded Installation — Panel Feedthrough Jack Receptacle



**Recommended  
Mounting Hole**

| Plating                          | Part No.  |
|----------------------------------|-----------|
| Passivated<br>Stainless<br>Steel | 1059657-1 |

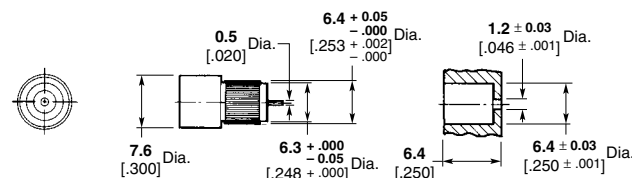
#### Press Fit Installation — Panel Feedthrough Plug Receptacle



**Recommended  
Mounting Hole**

| Plating                          | Part No.  |
|----------------------------------|-----------|
| Passivated<br>Stainless<br>Steel | 1059651-1 |

#### Press Fit Installation — Panel Feedthrough Jack Receptacle



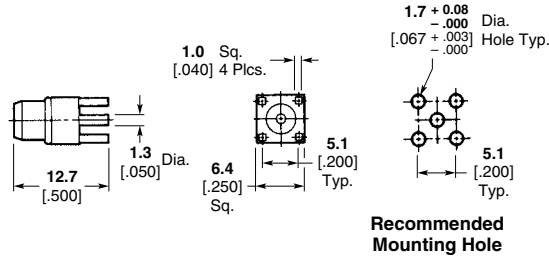
**Recommended  
Mounting Hole**

| Plating                          | Part No.  |
|----------------------------------|-----------|
| Passivated<br>Stainless<br>Steel | 1059654-1 |

**Note:** Part Numbers are RoHS compliant except: ♦ Indicates non-RoHS compliant.

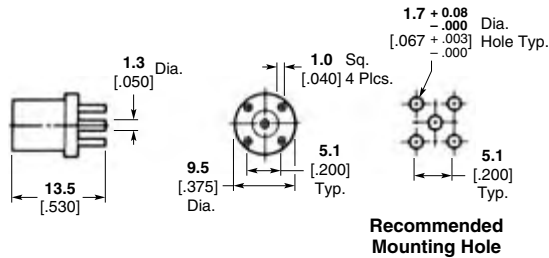
## OSP Miniature Modular Blind Mate Connectors (Continued) Printed Circuit Board Mount

### Straight Plug Receptacle — Captured Contact



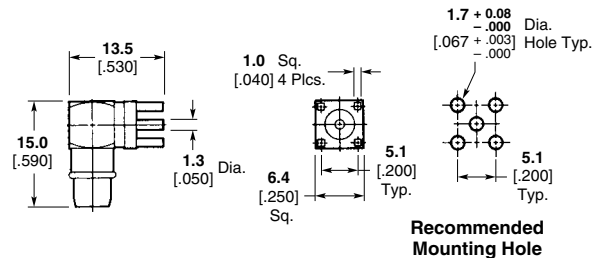
| Plating | Part No.  |
|---------|-----------|
| Gold    | 1059684-1 |

### Straight Jack Receptacle — Captured Contact



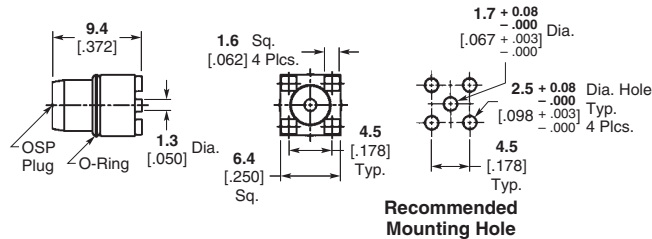
| Plating | Part No.  |
|---------|-----------|
| Gold    | 1059681-1 |

### Right-Angle Plug Receptacle — Captured Contact



| Plating | Part No.  |
|---------|-----------|
| Gold    | 1059691-1 |

### Surface Mount Vertical Plug with Small Leg



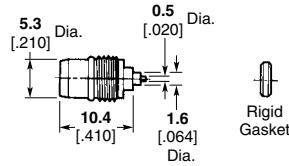
| Plating | Part No.  |
|---------|-----------|
| Gold    | 1253111-1 |

**Note:** Part Numbers are RoHS compliant except: ♦ Indicates non-RoHS compliant.

## OSP Miniature Modular Blind Mate Connectors (Continued) Hermetically Sealed

### Metal-To-Metal

#### Rigid Gasket Seal — Panel Feedthrough Plug Receptacle

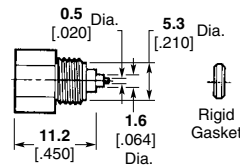


| VSWR (GHz)   | RF Leakage (dB) | Plating                    | Part No.         |
|--------------|-----------------|----------------------------|------------------|
| 1.04 + .009f | -(90-fGHz)      | Passivated stainless steel | <b>6059632-1</b> |

Installation Thermal Limit: 250°C.

Recommended Mounting Hole Detail A follows, pg 168.

#### Rigid Gasket Seal — Panel Feedthrough Jack Receptacle



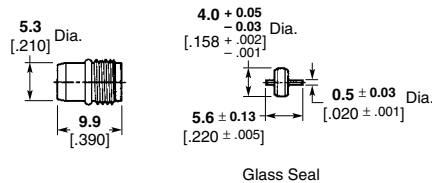
| VSWR (GHz)   | RF Leakage (dB) | Plating                    | Part No.         |
|--------------|-----------------|----------------------------|------------------|
| 1.04 + .009f | -(90-fGHz)      | Passivated stainless steel | <b>6059665-1</b> |

Installation Thermal Limit: 250°C.

Recommended Mounting Hole Detail A follows, pg 168.

### Field Replaceable Solder and Braze-In

#### Panel Feedthrough Plug Receptacle



| VSWR (GHz)  | RF Leakage (dB) | Plating                    | Part No.         |
|-------------|-----------------|----------------------------|------------------|
| 1.06 + .01f | -(90-fGHz)      | Passivated stainless steel | <b>1059637-1</b> |

Recommended Mounting Detail B or E follows, pg 168.

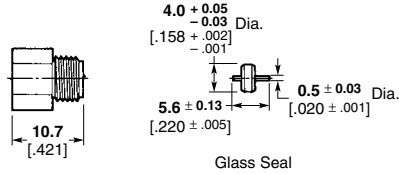
**Note:** Part Numbers are RoHS compliant except: ♦ Indicates non-RoHS compliant.

## OSP Miniature Modular Blind Mate Connectors (Continued) Hermetically Sealed (Continued)

### Field Replaceable Solder and Braze-In

(Continued)

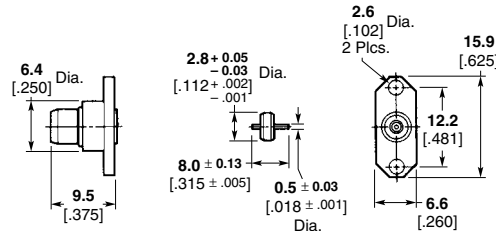
### Panel Feedthrough Jack Receptacle



| VSWR (GHz)  | RF Leakage (dB) | Plating                    | Part No.  |
|-------------|-----------------|----------------------------|-----------|
| 1.06 + .01f | -(90-fGHz)      | Passivated stainless steel | 1059671-1 |

Recommended Mounting Detail B or E follows at bottom of this page.

### 2-Hole Flange Mount Plug Receptacle With EMI/RFI Gasket — 0.5 [0.018] Dia. Contact

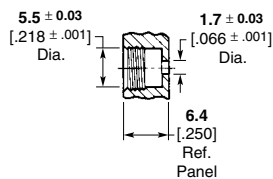


| VSWR (GHz)  | RF Leakage (dB) | Plating                    | Part No.  |
|-------------|-----------------|----------------------------|-----------|
| 1.06 + .01f | -(90-fGHz)      | Passivated stainless steel | 1059572-1 |

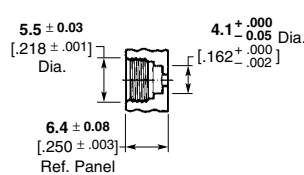
Recommended Mounting Detail D follows at bottom of this page.

### Recommended Mounting Hole Detail

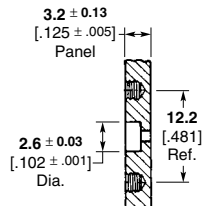
#### Detail A\*



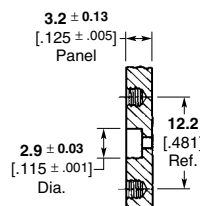
#### Detail B\* (6.35 [1.250] Panel Thickness)



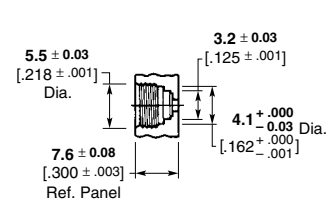
#### Detail C\*



#### Detail D\*



#### Detail E\*



\*Consult appropriate Instruction Sheet for complete mounting details.

**Note:** Part Numbers are RoHS compliant except: ♦ Indicates non-RoHS compliant.

## OSSP Subminiature Modular Blind Mate Connectors

### Product Facts

- Subminiature version of OSP Blind Mate Connectors
- For space savings
- Family of connectors and adapters



OSSP connectors are a subminiature version of the OSP blind mate series. Connectors in this series incorporate the design elements of the OSP interface including the float and mis-mate features. OSSP blind mates are about 40% smaller than OSP connectors and are designed to be

used in applications where space is at a premium.

A complete family of OSSP connectors and adapters is available including cable connectors, fixed and float mount panel connectors and hermetic connectors. Rigid mount units will function to specifications up to

$\pm .064$  [ $\pm .0025$ ] radial misalignment with the mating plug connector. Applications requiring greater than  $\pm .064$  [ $\pm .0025$ ] radial misalignment can use either the float design or floating connector plates with guide pins.

### Engineering Data

|                      |                |
|----------------------|----------------|
| Impedance —          | 50 ohms        |
| Frequency —          | dc to 28.0 GHz |
| Temperature Rating — | -65° to 125° C |

### Electrical

|                                           |                                                |
|-------------------------------------------|------------------------------------------------|
| VSWR —                                    | 1.05 + .01f (GHz)                              |
| RF Transmission Loss —                    | .040 x $\sqrt{f}$ (GHz)                        |
| Insulation Resistance —                   | 5,000 megohms min.                             |
| Contact Resistance —                      |                                                |
| Center Contact                            | 6.0 milliohms max.                             |
| Outer Contact                             | 3.0 milliohms max.                             |
| Outer Contact to Cable                    | 0.5 milliohms max.                             |
| Dielectric Withstanding Voltage —         | 675 volts RMS                                  |
| Corona Extinction Voltage at 70,000 Ft. — | 250 volts min.                                 |
| RF High Potential at 5 MHz —              | 675 volts RMS                                  |
| RF Leakage Interface Only —               | -(90-fGHz) dB min. (fully mated)               |
| Power Handling —                          | 300W at 3 GHz (sea level) and room temperature |

### Environmental

|                       |                                              |
|-----------------------|----------------------------------------------|
| Corrosion —           | Method 101, Condition B, MIL-STD-202         |
| Vibration —           | Method 204, Condition D, 20G's, MIL-STD-202  |
| Shock —               | Method 213, Condition I, 100G's, MIL-STD-202 |
| Temperature Cycling — | Method 107, Condition B, MIL-STD-202         |
| Moisture Resistance — | Method 106, MIL-STD-202                      |

### Material

|                   |                                                                       |
|-------------------|-----------------------------------------------------------------------|
| Housing —         | Corrosion resistant steel Type 303 (stainless) per ASTM A484 and A582 |
| Center Contact —  | Beryllium copper per ASTM-B-196                                       |
| Dielectric —      | TFE fluorocarbon per ASTM-D-1457                                      |
| Gasket (O'Ring) — | MIL-P-25732                                                           |

### Mechanical

|                            |                           |
|----------------------------|---------------------------|
| Force to Engage —          | 3 pounds max.             |
| Force to Disengage —       | 1.5 pounds max.           |
| Center Contact Retention — | 4 pounds min.             |
| Durability —               | 1,000 Cycles              |
| Radial Misalignment —      |                           |
| Rigid Mount                | $\pm .06$ [ $\pm .0025$ ] |
| Float Mount                | $\pm .51$ [ $\pm .020$ ]  |

### Mating Characteristics

|                       |                        |                                    |  |
|-----------------------|------------------------|------------------------------------|--|
| Jack Connector —      |                        |                                    |  |
| Center Contact Socket | Oversize test Pin —    | $.533 + .003$ [.0210 + .0001] dia. |  |
|                       | Test Pin Finish —      | 16 micro inch max.                 |  |
|                       | Insertion Depth —      | $.76/1.14$ [.030/.045]             |  |
|                       | Number of Insertions — | 3                                  |  |
| Insertion Force       | Test Pin —             | $.528 + .003$ [.0208 + .0001] dia. |  |
|                       | Test Pin Finish —      | 16 micro inch                      |  |
|                       | Insertion Force —      | 3 pounds max.                      |  |
|                       | Test Pin —             | $.495 + .003$ [.0195 - .0001] dia. |  |
| Withdrawal Force      | Test Pin Finish —      | 16 micro inch max.                 |  |
|                       | Insertion Depth —      | $1.27/1.91$ [.050/.075]            |  |
|                       | Withdrawal —           | 1/2 ounce min.                     |  |

### Finish

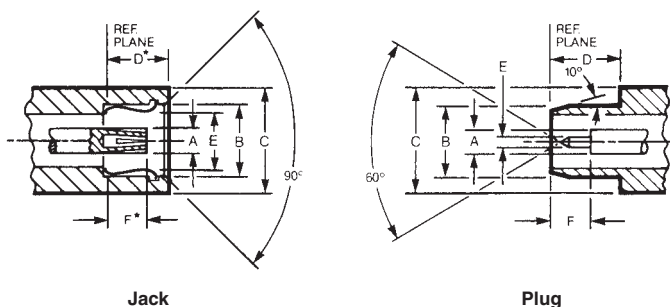
|                  |                                                                                                                 |
|------------------|-----------------------------------------------------------------------------------------------------------------|
| Center Contact — | Gold plate per MIL-G-45204, Type II, Class 0 over nickel plate per QQ-N-290, Class 2 or passivate per ASTM-A380 |
| Housing —        | Gold plate per MIL-G-45204, Type II, Class 0 over nickel plate per QQ-N-290, Class 2 or passivate per ASTM-A380 |

## OSSP Subminiature Modular Blind Mate Connectors (Continued)

### Interface Mating Dimensions

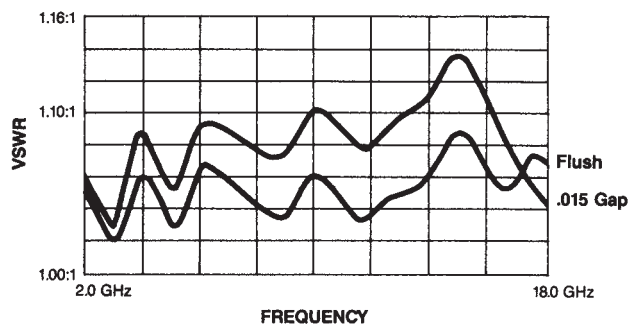
The connector interface, specifically designed for multiple interconnects, maintains reliable performance over the typical mechanical tolerance required in cost effective packaging.

The interface test data shows excellent performance is maintained with mating gaps up to .015 inch.



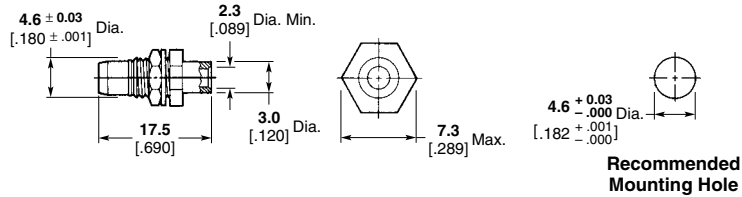
| Description | Dimensions        |                   |                   |                    |                   |                    |
|-------------|-------------------|-------------------|-------------------|--------------------|-------------------|--------------------|
|             | A                 | B                 | C                 | D                  | E                 | F                  |
| Jack        | 1.22<br>0.48 Nom. | 3.91<br>.154 Min. | 5.33<br>.210 Ref. | 5.00<br>.197 Nom.* | 3.35<br>.132 Max. | 3.23<br>.127 Max.* |
| Plug        | 1.22<br>0.48 Nom. | 3.56<br>.140 Nom. | 5.33<br>.210 Ref. | 5.00<br>.199 Min.  | 0.51<br>.020 Nom. | 3.25<br>.128 Min.  |

\*With spring bottomed.



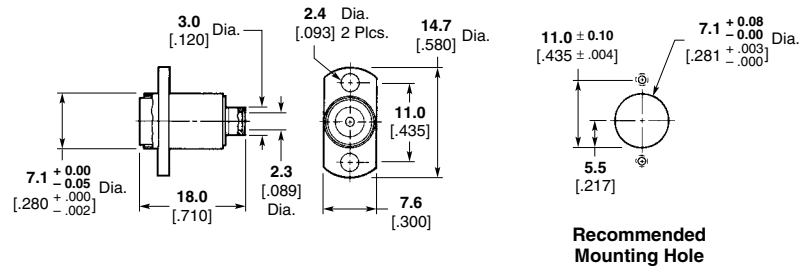
## OSSP Subminiature Modular Blind Mate Connectors (Continued) For Semi-Rigid Cable, Direct Solder Attachment

### Bulkhead Feedthrough Cable Plug — Rear Mount



| Cable                       | Plating | Part No.  |
|-----------------------------|---------|-----------|
| RG 405/U,<br>2.16<br>[.085] | Gold    | 1059857-1 |

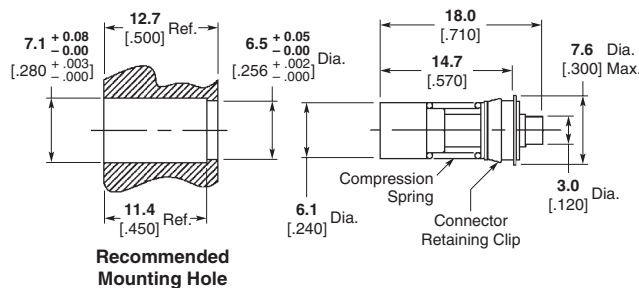
### Flange Mount Cable Jack — Floating Rear Mount



| Cable                       | Part No.  |
|-----------------------------|-----------|
| RG 405/U,<br>2.16<br>[.085] | 1059868-1 |

Finish: Inner housing that is soldered to cable is gold plated. Outer housing is passivated stainless steel.  
When using semi-rigid cable, it is recommended that a service loop be used to facilitate the float features of the connector.

### Feedthrough Snap-In

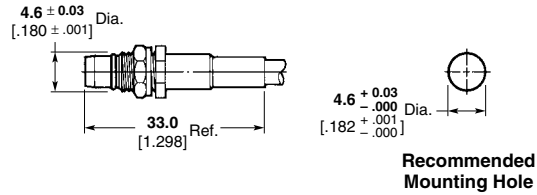


| Cable                       | Part No.  |
|-----------------------------|-----------|
| RG 405/U,<br>2.16<br>[.085] | 1059874-1 |

**Note:** Part Numbers are RoHS compliant except: ♦ Indicates non-RoHS compliant.

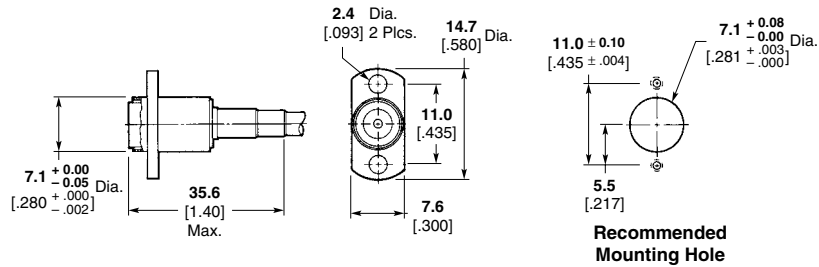
## OSSP Subminiature Modular Blind Mate Connectors (Continued) For Flexible Cable, Crimp Attachment

### Bulkhead Feedthrough Cable Plug — Rear Mount



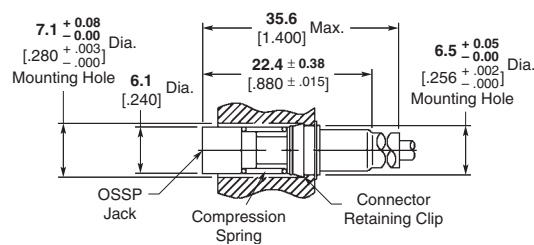
| Cable                                   | Plating                    | Part No.  |
|-----------------------------------------|----------------------------|-----------|
| RG 188/U,<br>316 Double<br>Braided Only | Passivated Stainless Steel | 1059884-1 |
| RG 174/U,<br>188/U, 316U                | Passivated Stainless Steel | 1059886-1 |

### Flange Mount Cable Jack — Floating Rear Mount



| Cable                                   | Plating                    | Part No.  |
|-----------------------------------------|----------------------------|-----------|
| RG 188/U,<br>316 Double<br>Braided Only | Passivated Stainless Steel | 1059888-1 |
| RG 174/U,<br>188/U, 316U                | Passivated Stainless Steel | 1059887-1 |

### Feedthrough Snap-In Cable Jack

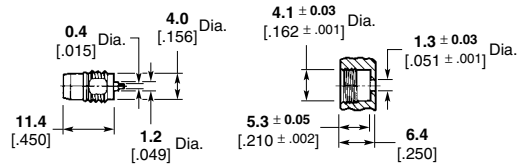


| Part No.  |
|-----------|
| 1059889-1 |

**Note:** Part Numbers are RoHS compliant except: ♦ Indicates non-RoHS compliant.

## OSSP Subminiature Modular Blind Mate Connectors (Continued) For Panel Mount

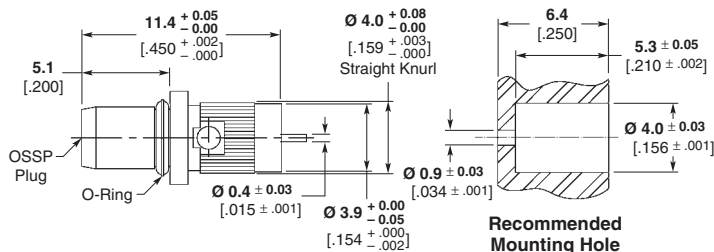
### Threaded Panel Feedthrough Plug Receptacle, Straight Terminal



**Recommended  
Mounting Hole**

| Plating                          | Part No.  |
|----------------------------------|-----------|
| Passivated<br>Stainless<br>Steel | 1059903-1 |

### Press-Fit Panel Feedthrough Plug Receptacle



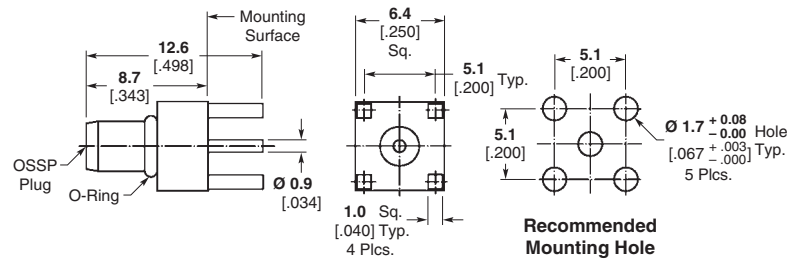
**Recommended  
Mounting Hole**

| Part No.  |
|-----------|
| 1059901-1 |

**Note:** Part Numbers are RoHS compliant except: ♦ Indicates non-RoHS compliant.

## OSSP Subminiature Modular Blind Mate Connectors (Continued) For Printed Circuit Board Mount

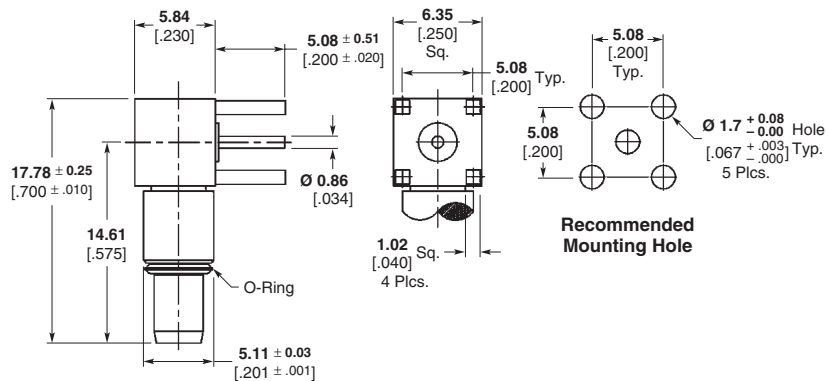
### Straight Plug Receptacle — Captured Contact



Part No.

1059919-1

### Right-Angle Plug Receptacle



Part Number

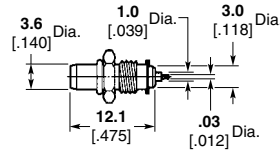
1484546-1

**Note:** Part Numbers are RoHS compliant except: ♦ Indicates non-RoHS compliant.

## OSSP Subminiature Modular Blind Mate Connectors (Continued) Hermetically Sealed

### Metal to Metal

#### Formable Gasket — Panel Feedthrough Plug Receptacle

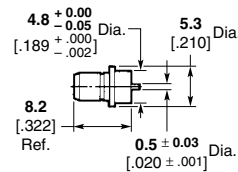


| VSWR (GHz)  | RF Leakage (dB) | Plating | Part No.  |
|-------------|-----------------|---------|-----------|
| 1.06 + .01f | -(85-fGHz)      | Gold    | 1059905-1 |

Recommended Mounting Hole Detail A at bottom of this page.

### Solder and Braze-In

#### Panel Feedthrough Plug Receptacle

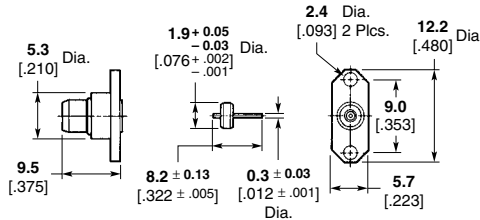


| VSWR (GHz)  | RF Leakage (dB) | Plating | Part No.  |
|-------------|-----------------|---------|-----------|
| 1.06 + .01f | -(85-fGHz)      | Gold    | 1059902-1 |

Recommended Mounting Hole Detail B at bottom of this page.

### Field Replaceable Solder and Braze-In

#### 2-Hole Flange Mount Plug Receptacle With EMI/RFI Gasket

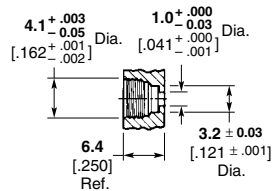


| VSWR (GHz)  | RF Leakage (dB) | Plating                    | Part No.  |
|-------------|-----------------|----------------------------|-----------|
| 1.06 + .01f | -(85-fGHz)      | Passivated Stainless Steel | 1059894-1 |

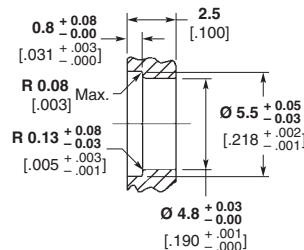
Recommended Mounting Hole Detail C at bottom of this page.

### Recommended Mounting Hole Detail for Hermetically Sealed

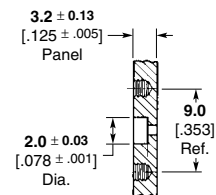
#### Detail A\*



#### Detail B\*



#### Detail C\*



**Note:** Part Numbers are RoHS compliant except: ♦ Indicates non-RoHS compliant.

\*Consult appropriate Instruction Sheet for complete mounting procedure.

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- Подбор аналогов.
- Поставку компонентов в любых объемах, удовлетворяющих вашим потребностям.
- Приемлемые сроки поставки, возможна ускоренная поставка.
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- Комплексную поставку.
- Работу по проектам и поставку образцов.
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- Техническую поддержку проекта.
- Защиту от снятия компонента с производства.
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- Изготовление тестовой платы монтаж и пусконаладочные работы.



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