

BMA 85 SERIES

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

MECHANICAL

MATERIALS:

Bodies: Stainless Steel Per ASTM-A-582
Contacts: Beryllium Copper Per ASTM-B-196
Insulators: Teflon (PTFE) Per ASTM-D-1457
Gasket (O'Ring): Silicone Rubber ZZ-R-765

PLATING:

Gold per Mil-G-45204
Copper Per Mil-C-14550
Nickel Per QQ-N-290
Passivate per Mil-F-14072

FINISHES* (Add letter to end of part number)

Bodies: .000030 Min. Gold Over .000050 Min. Nickel or Passivated
Contacts: .000050 Min. Gold Over .000050 Min. Nickel
Other Metal Parts: Gold Plated or Passivated to meet the environmental requirements

MATING CHARACTERISTICS

Engagement: 3 lbs. Max.
Disengagement: 1.5 lbs. Max.
Durability: 1000 Cycles
Center Contact Retention: 6 lbs. Min.
Radial Misalignment:
 Rigid Mount: +/- .004 inch.
 Float Mount: +/- .020 inch

ELECTRICAL

Impedance: 50 Ohms
Frequency Range: DC to 22 GHz
Insulation Resistance: 5000 Megohms Min.
Power Rating: 300 Watts @ 3 GHz. (Sea level and room temperature).
Temperature Rating: -65°C to +165°C
DMW: 1500 Volts RMS (RG-402); 1000 Volts RMS (RG-405)
RF High Potential at 5 MHz: 1000 Volts RMS (RG-402), 670 Volts RMS (RG-405)
Contact Resistance: Center Contact - 2.0 Milliohms
 Outer Contact - 2.0 Milliohms
VSWR: 1.02 + .005f (GHz); DC to 18 GHz / 1.02 + .008f (GHz); 18 GHz to 22 GHz (RG-402/U)
 1.05 + .005f (GHz); DC to 18 GHz / 1.05 + .009f (GHz); 18 GHz to 22 GHz (RG-405/U)
Corona Level: 70,000 Ft. - 375 Volts (RG-402); 335 Volts (RG-405)
Insertion Loss (dB Max.): .03 x $\sqrt{\text{Frequency, GHz}}$

ENVIRONMENTAL

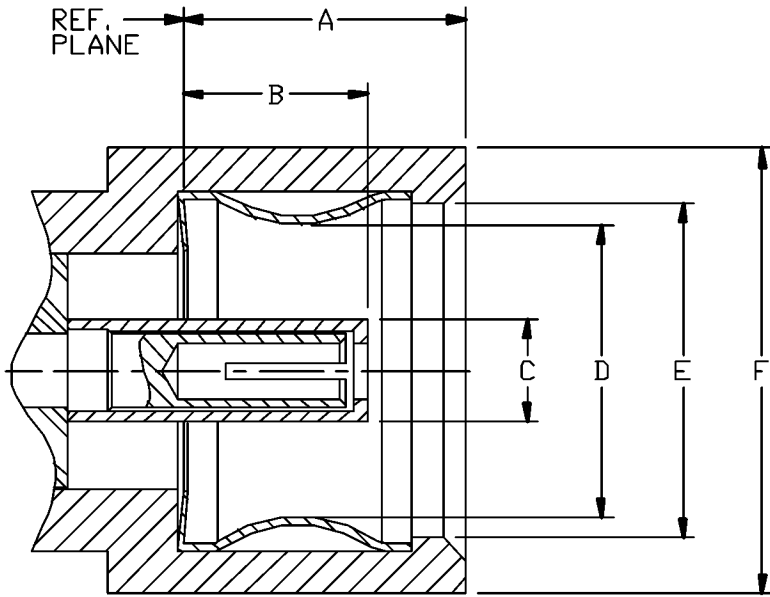
Vibration: MIL-STD-202, Method 204, Test Condition D.
Shock: MIL-STD-202, Method 213, Test Condition I.
Thermal Shock: MIL-STD-202, Method 107, Test Condition B.
Corrosion: MIL-STD-202, Method 101, Test Condition B.
Temperature Cycling: MIL-STD-202, Method 107, Condition C.
High Temperature Test: MIL-STD-202, Method 108A, Condition D.
Moisture Resistance: MIL-STD-202, Method 106.



BMA 85 SERIES

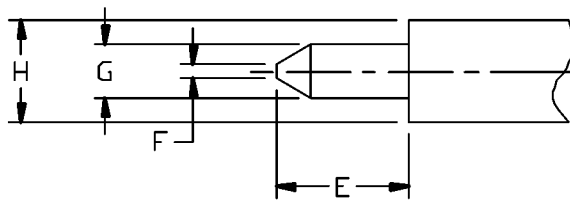
Interface Drawings

DIMENSIONS ARE TO MIL-STD-348A.

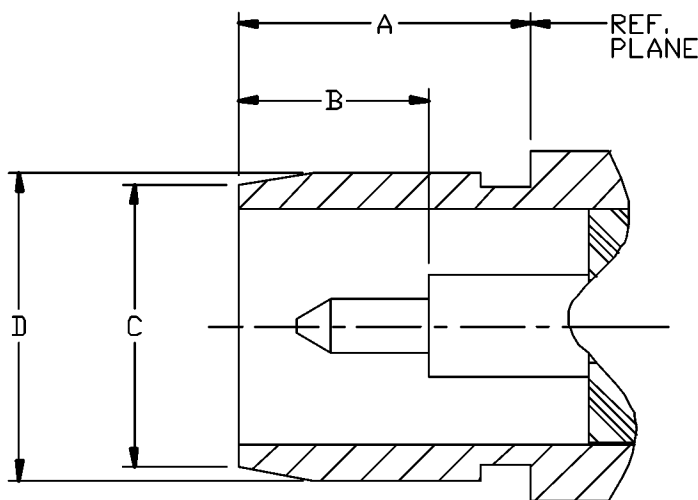


RECEPTACLE

	INCH	[mm]	SUFFIX
A	.197	[5.00]	MAX.
B	$\frac{.115}{.127}$	$\frac{[2.92]}{[3.23]}$	
C	$\phi 0.070$	$[\phi 1.78]$	NOM.
D	$\phi 0.200$	$[\phi 5.08]$	MAX.
E	$\phi 0.225$	$[\phi 5.72]$	MIN.
F	$\phi 0.300$	$[\phi 7.62]$	NOM.



PLUG

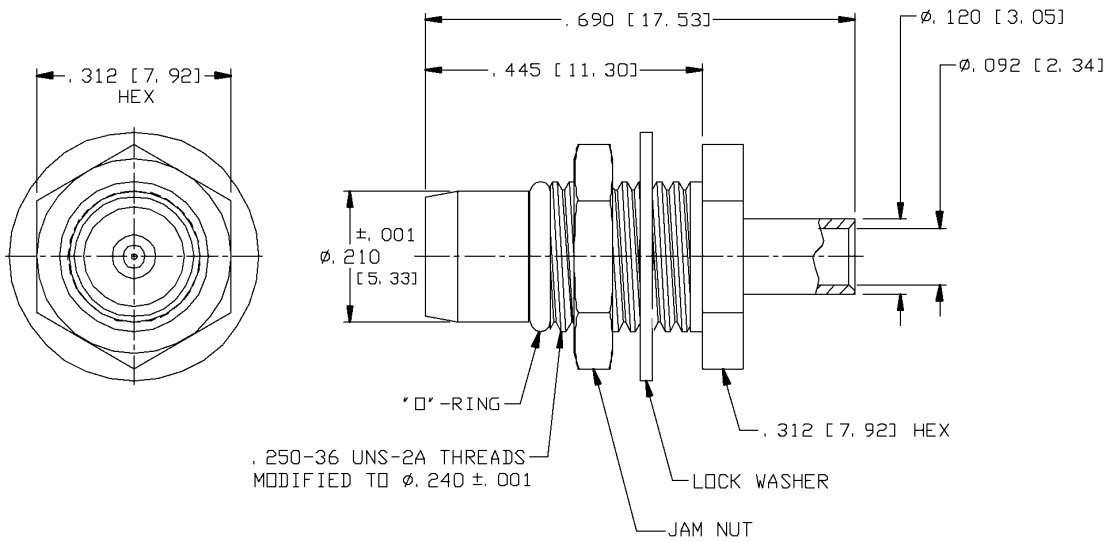


	INCH	[mm]	SUFFIX
A	.198	[5.03]	MIN.
B	.128	[3.25]	MIN.
C	$\phi 0.192$	$[\phi 4.88]$	NOM.
D	$\frac{\phi 0.209}{\phi 0.211}$	$\frac{[\phi 5.31]}{[\phi 5.36]}$	
E	.090	[2.29]	NOM.
F	$\phi 0.015$	$[\phi 0.38]$	MAX.
G	$\frac{\phi 0.0354}{\phi 0.0370}$	$\frac{[\phi 0.90]}{[\phi 0.94]}$	
H	$\phi 0.070$	$[\phi 1.78]$	NOM.



BMA 85 SERIES

Blind Mate Plug, Bulkhead, Direct Solder, RG-405

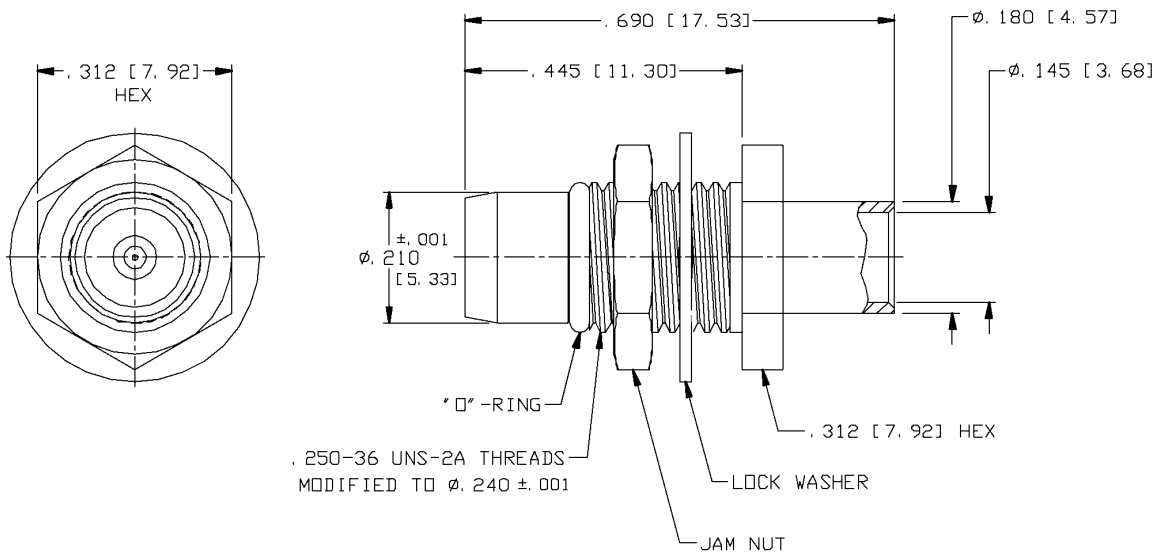


NOTES:

1. DESIGN AND INTERFACE PER IDS-85.
2. ACCOMMODATES RG-405 (.086 S/R) CABLE.

Part Number
85-0265-0860*

Blind Mate Plug, Bulkhead, Direct Solder, RG-402



NOTES:

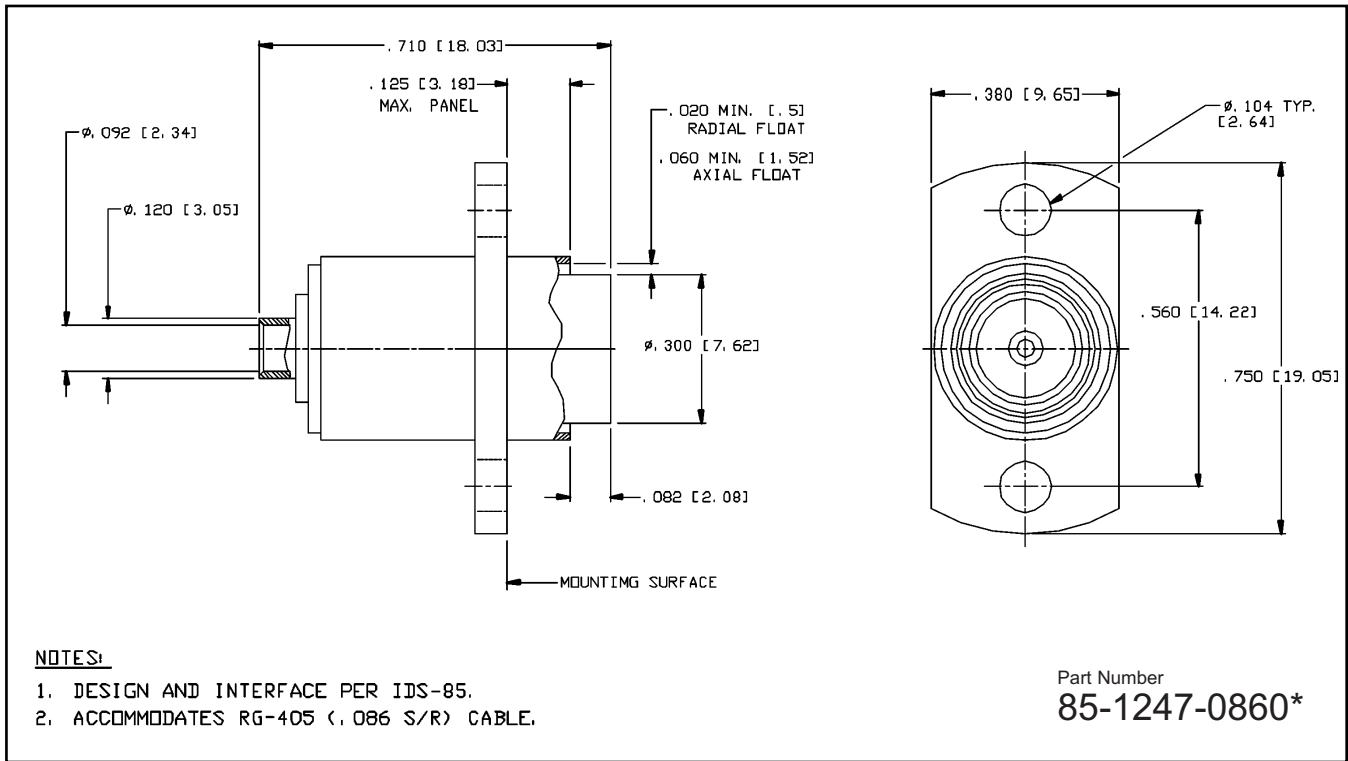
1. DESIGN AND INTERFACE PER IDS-85.
2. ACCOMMODATES RG-402 (.141 S/R) CABLE.

Part Number
85-0265-1410*

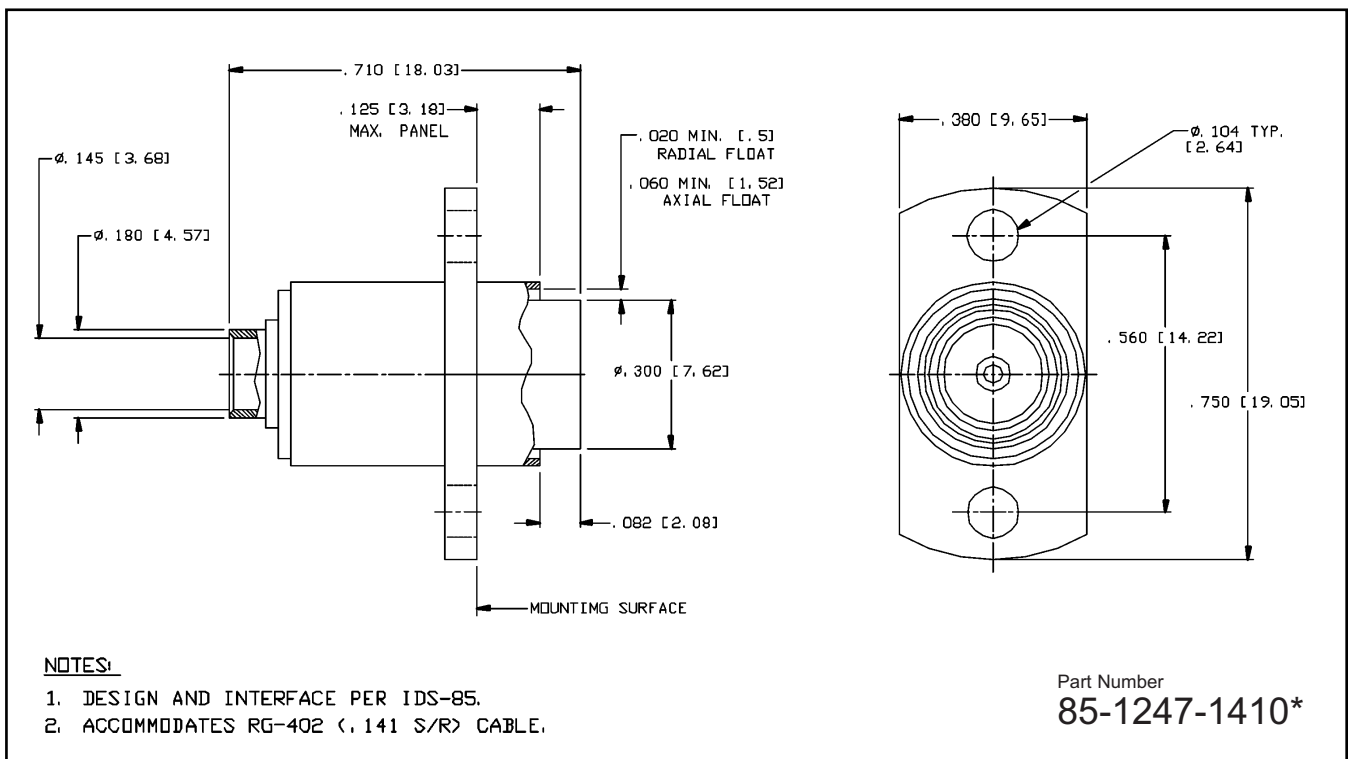


BMA 85 SERIES

Blind Mate Jack, Panel Mount, Direct Solder, RG-405

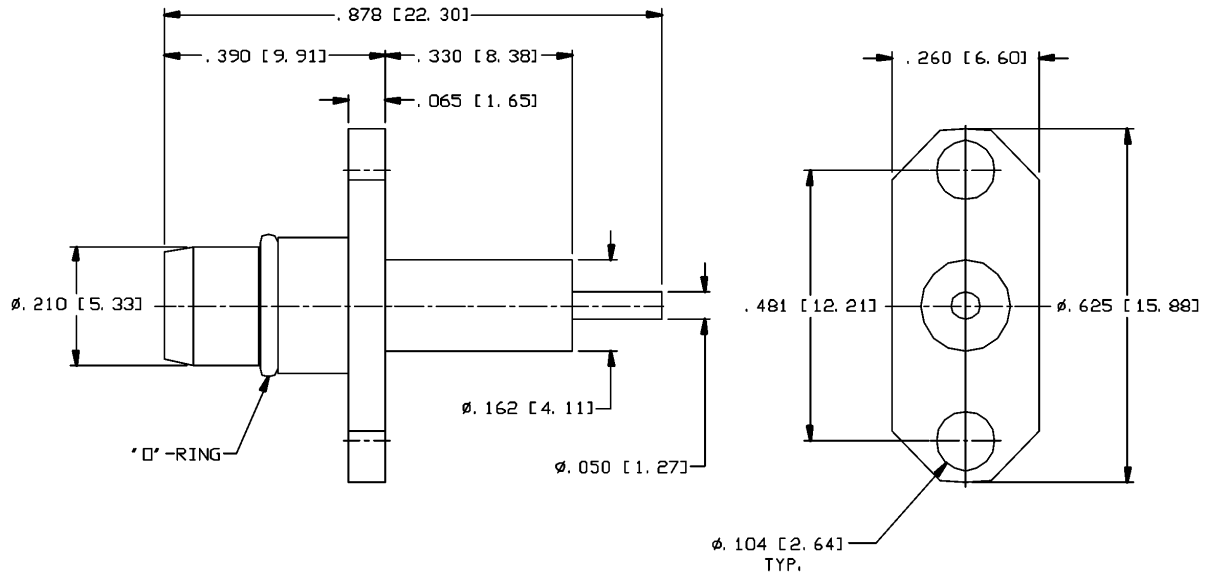


Blind Mate Jack, Panel Mount, Direct Solder, RG-402



BMA 85 SERIES

BMA Blind Mate Plug, 2 Hole Panel Mount

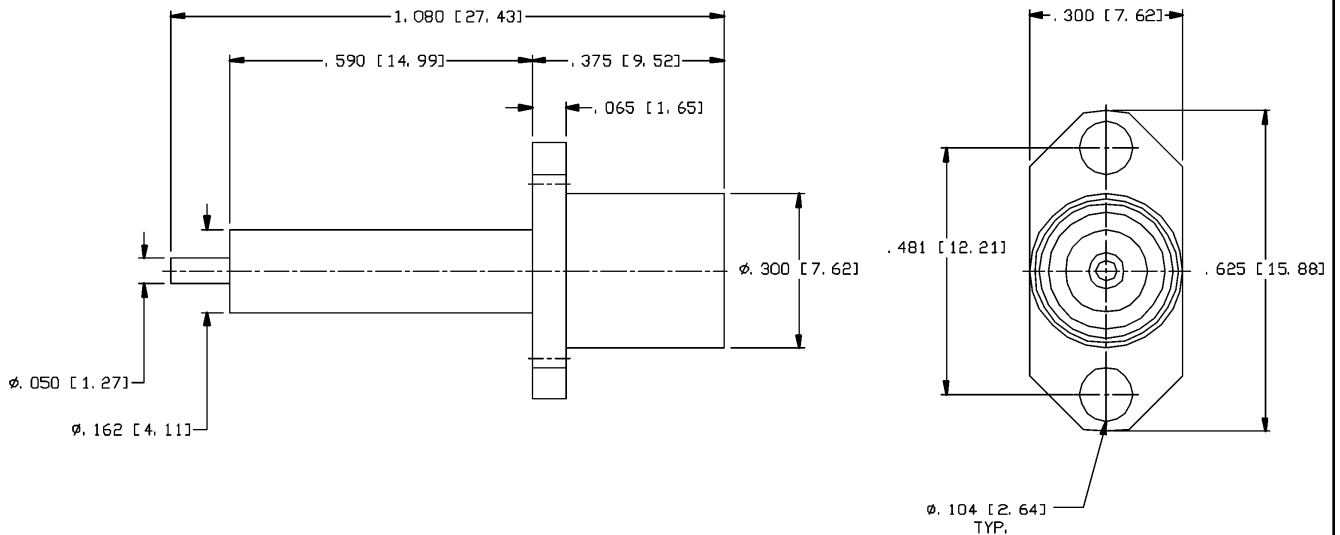


NOTES:

1. DESIGN AND INTERFACE PER IDS-85.
2. *O*-RING SUPPLIED LOOSE.
3. MOUNTING HOLE PER DS-16F FIGURE 3.

Part Number
85-0457-00*

BMA Blind Mate Jack, 2 Hole Panel Mount



NOTES:

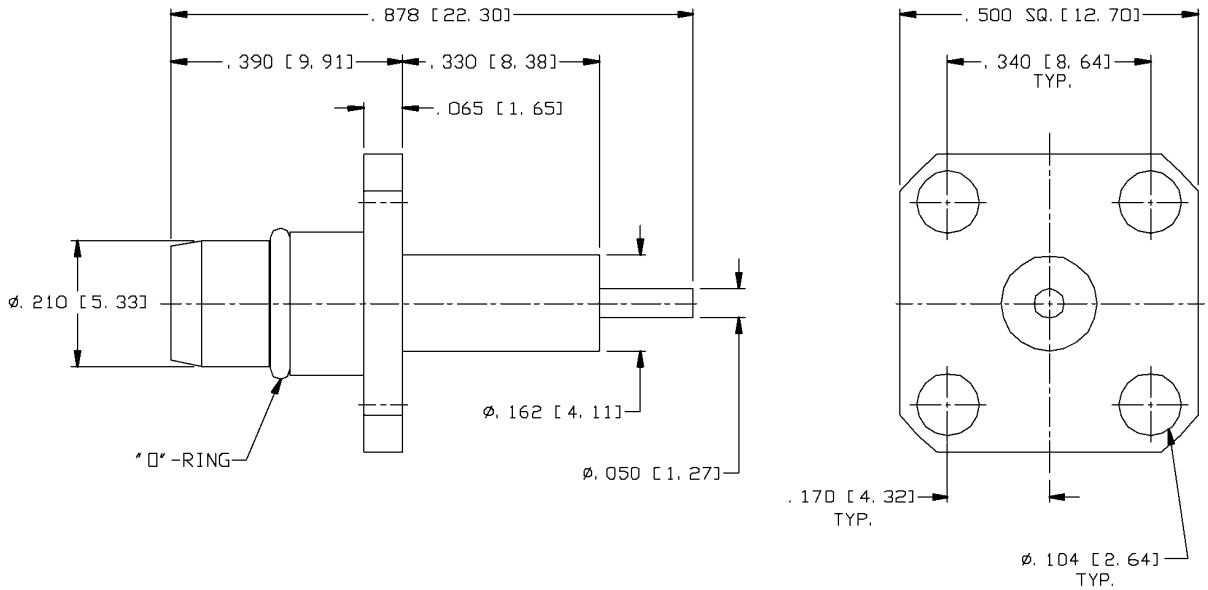
1. DESIGN AND INTERFACE PER IDS-85.
2. *O*-RING SUPPLIED LOOSE.
3. MOUNTING HOLE PER DS-16F FIGURE 5.

Part Number
85-1447-00*



BMA 85 SERIES

BMA Blind Mate Plug, 4 Hole Panel Mount



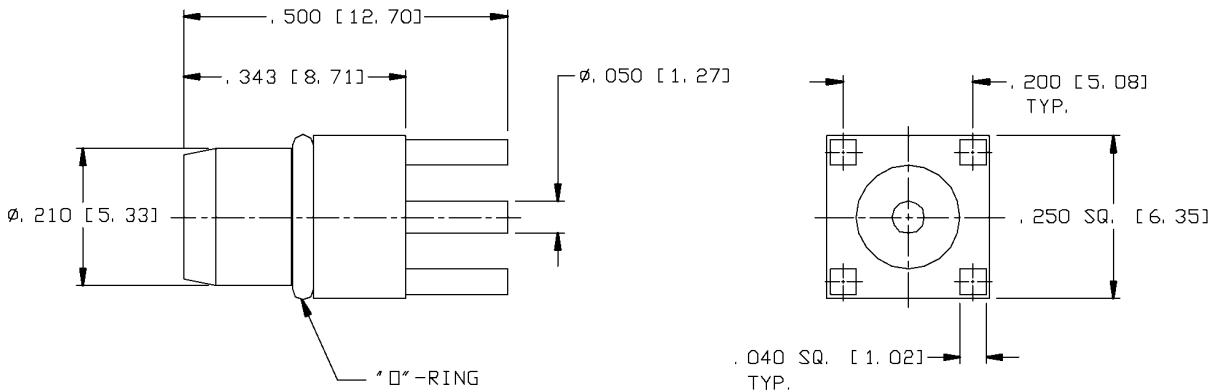
NOTES:

1. DESIGN AND INTERFACE PER IDS-85.
2. "O"-RING SUPPLIED LOOSE.
3. MOUNTING HOLE PER DS-16G FIGURE 5.

Part Number

85-0455-00*

BMA Blind Mate Plug, PCB Mount



NOTES:

1. DESIGN AND INTERFACE PER IDS-85.
2. "O"-RING SUPPLIED LOOSE.
3. MOUNTING HOLE PER DS-16E FIGURE 9.

Part Number

85-0450-00*



THE PHOENIX COMPANY
of CHICAGO, INC.

Dimensions are subject to change without notice.

PALCO CONNECTOR

A subsidiary of The Phoenix Company

555 Pond Drive • Wood Dale, IL 60191-1192 • Toll Free (800)323-9562

BMA 87 SERIES

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

MECHANICAL

MATERIALS:

Bodies: Brass Per ASTM-B-16
Contacts: Beryllium Copper Per ASTM-B-196
Insulators: Teflon (PTFE) Per ASTM-D-1457
Gasket (O'Ring): Silicone Rubber ZZ-R-765

PLATING:

Gold per Mil-G-45204
Copper Per Mil-C-14550
Nickel Per QQ-N-290

FINISHES* (Add letter to end of part number)

Bodies: .000030 Min. Gold Over .000050 Min. Nickel over .000050 Max. Cooper Flash
or .000200 Min. Nickel (bright) over .000050 Max. Cooper
Contacts: .000050 Min. Gold Over .000050 Min. Nickel
Other Metal Parts: Gold Plated or Passivated to meet the environmental requirements

MATING CHARACTERISTICS

Engagement: 3 lbs. Max.
Disengagement: 1.5 lbs. Max.
Durability: 500 Cycles
Center Contact Retention: 6 lbs. Min.
Radial Misalignment:
Rigid Mount: +/- .004 inch.
Float Mount: +/- .020 inch

ELECTRICAL

Impedance: 50 Ohms
Frequency Range: DC to 22 GHz
Insulation Resistance: 5000 Megohms Min.
Power Rating: 300 Watts @ 3 GHz. (Sea level and room temperature).
Temperature Rating: -65°C to +165°C
DMW: 1500 Volts RMS (RG-402); 1000 Volts RMS (RG-405)
RF High Potential at 5 MHz: 1000 Volts RMS (RG-402), 670 Volts RMS (RG-405)
Contact Resistance: Center Contact - 2.0 Milliohms
Outer Contact - 2.0 Milliohms
VSWR: 1.02 + .005f (GHz); DC to 18 GHz / 1.02 + .008f (GHz); 18 GHz to 22 GHz (RG-402/U)
1.05 + .005f (GHz); 18 to 22 GHz / 1.05 + .009f (GHz); 18 GHz to 22 GHz (RH-405/U)
Corona Level: 70,000 Ft. - 375 Volts (RG-402); 335 Volts (RG-405)
Insertion Loss (dB Max.): .03 x $\sqrt{\text{Frequency, GHz}}$

ENVIRONMENTAL

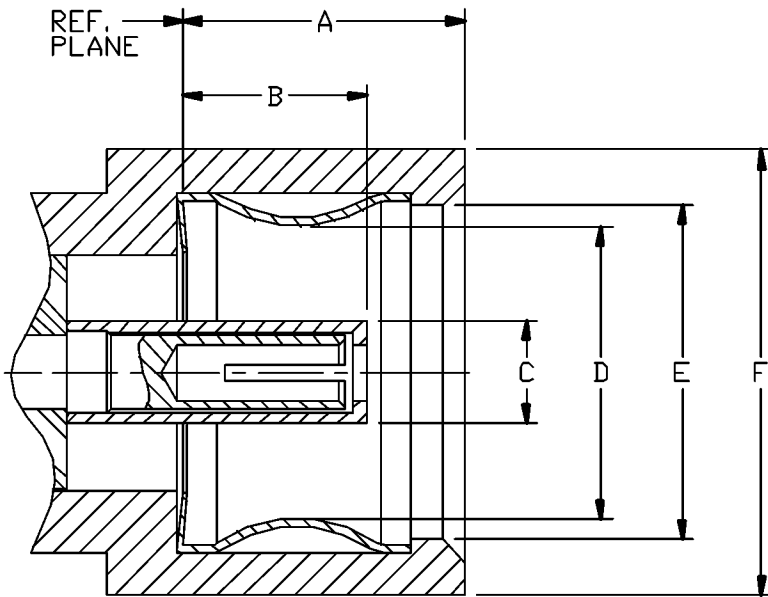
Vibration: MIL-STD-202, Method 204, Test Condition D.
Shock: MIL-STD-202, Method 213, Test Condition I.
Thermal Shock: MIL-STD-202, Method 107, Test Condition B.
Corrosion: MIL-STD-202, Method 101, Test Condition B.
Temperature Cycling: MIL-STD-202, Method 107, Condition C.
High Temperature Test: MIL-STD-202, Method 108A, Condition D.
Moisture Resistance: MIL-STD-202, Method 106.



BMA 87 SERIES

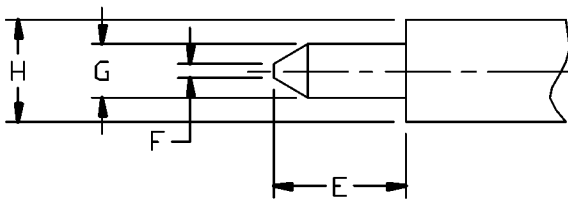
Interface Drawings

DIMENSIONS ARE TO MIL-STD-348A.

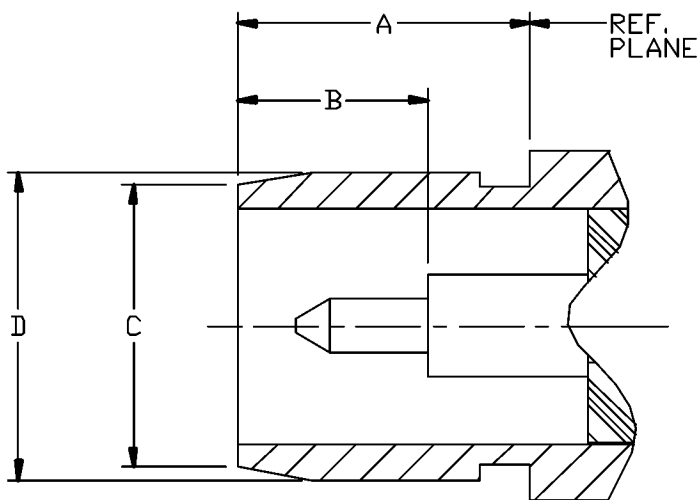


RECEPTACLE

	INCH	[mm]	SUFFIX
A	.197	[5.00]	MAX.
B	$\frac{.115}{.127}$	$\frac{[2.92]}{[3.23]}$	
C	$\phi.070$	$[\phi 1.78]$	NOM.
D	$\phi.200$	$[\phi 5.08]$	MAX.
E	$\phi.225$	$[\phi 5.72]$	MIN.
F	$\phi.300$	$[\phi 7.62]$	NOM.



PLUG

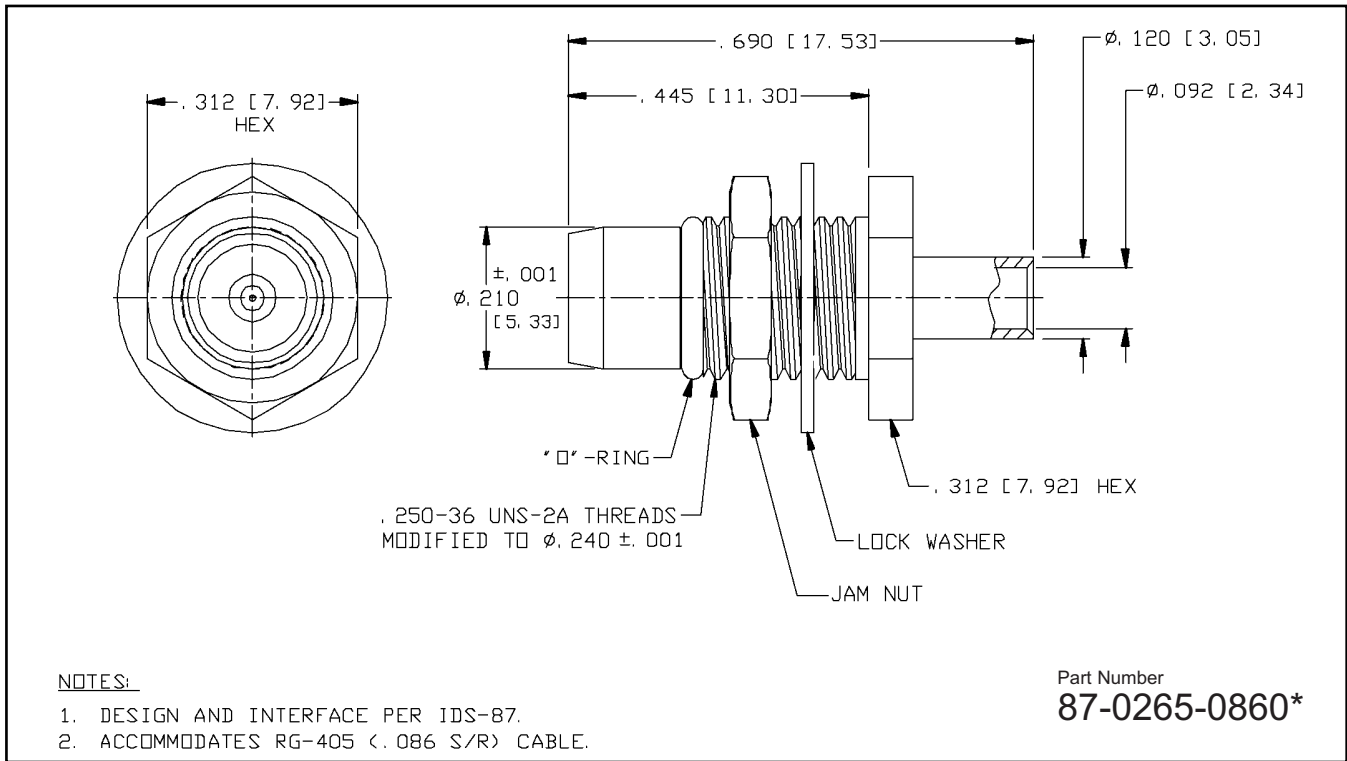


	INCH	[mm]	SUFFIX
A	.198	[5.03]	MIN.
B	.128	[3.25]	MIN.
C	$\phi.192$	$[\phi 4.88]$	NOM.
D	$\frac{\phi.209}{\phi.211}$	$\frac{[\phi 5.31]}{[\phi 5.36]}$	
E	.090	[2.29]	NOM.
F	$\phi.015$	$[\phi 0.38]$	MAX.
G	$\frac{\phi.0354}{\phi.0370}$	$\frac{[\phi 0.90]}{[\phi 0.94]}$	
H	$\phi.070$	$[\phi 1.78]$	NOM.

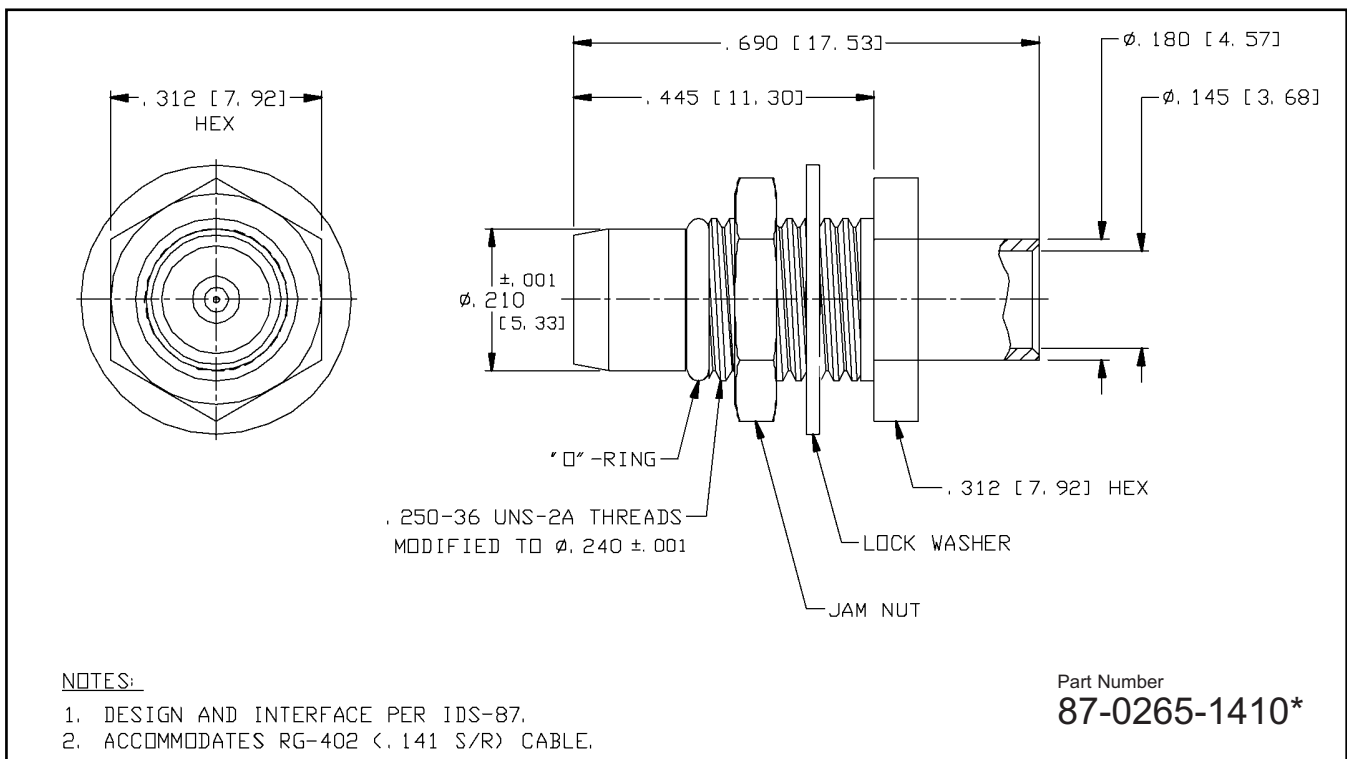


BMA 87 SERIES

Blind Mate Plug, Bulkhead, Direct Solder, RG-405

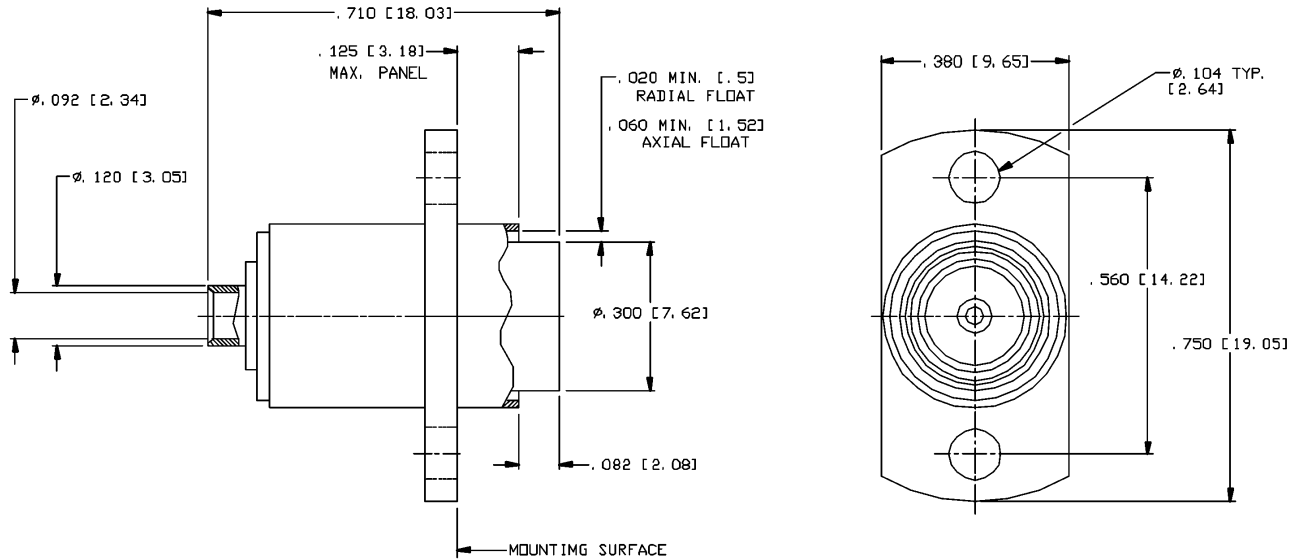


Blind Mate Plug, Bulkhead, Direct Solder, RG-402



BMA 87 SERIES

Blind Mate Jack, Panel Mount, Direct Solder, RG-405

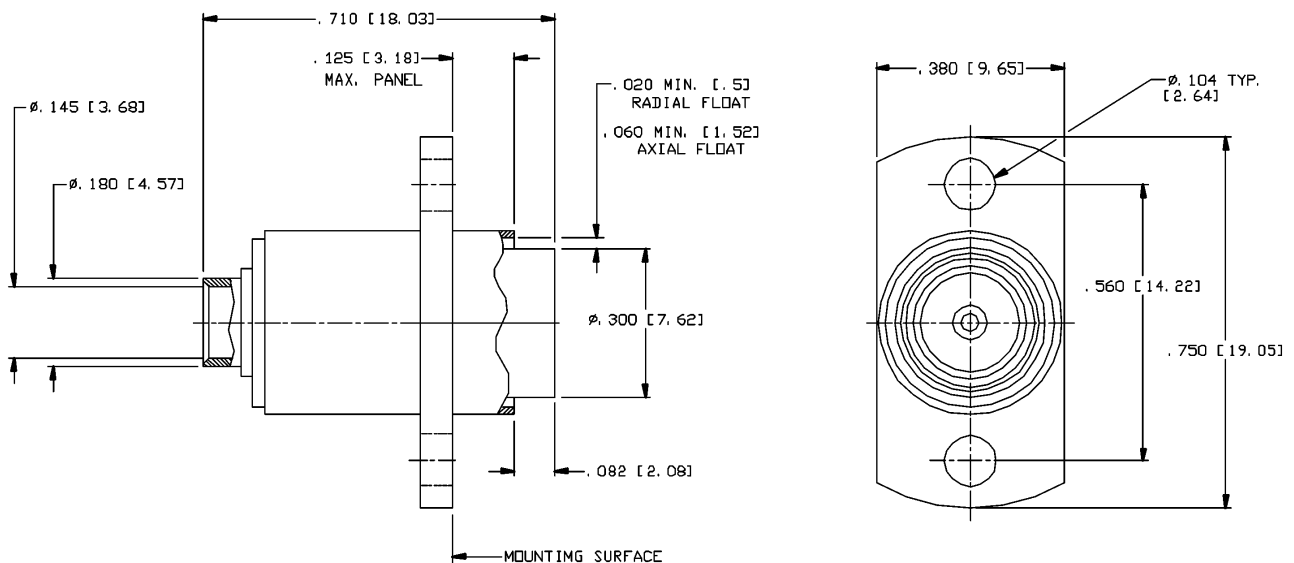


NOTES:

1. DESIGN AND INTERFACE PER IDS-87.
2. ACCOMMODATES RG-405 (<.086 S/R) CABLE.

Part Number
87-1247-0860*

Blind Mate Jack, Panel Mount, Direct Solder, RG-402



NOTES:

1. DESIGN AND INTERFACE PER IDS-87.
2. ACCOMMODATES RG-402 (<.141 S/R) CABLE.

Part Number
87-1247-1410*



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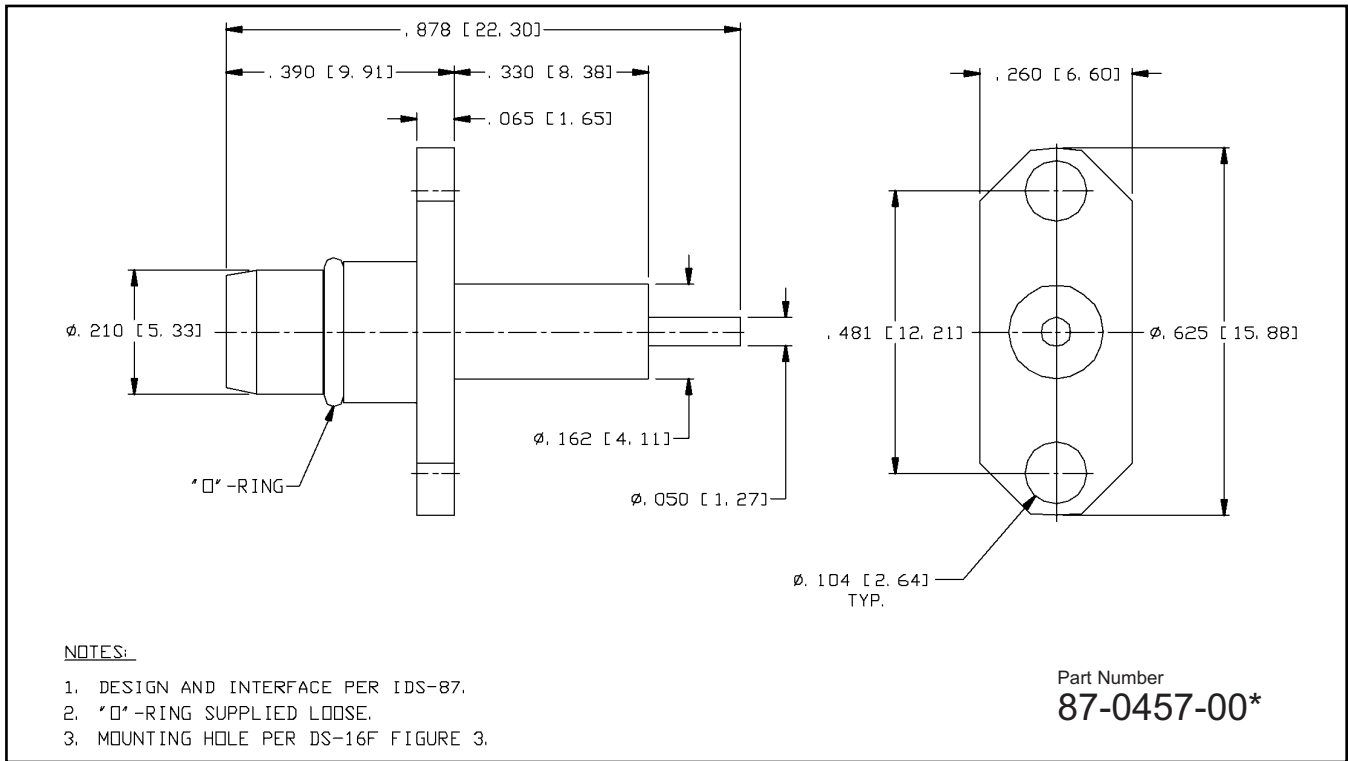
PALCO CONNECTOR

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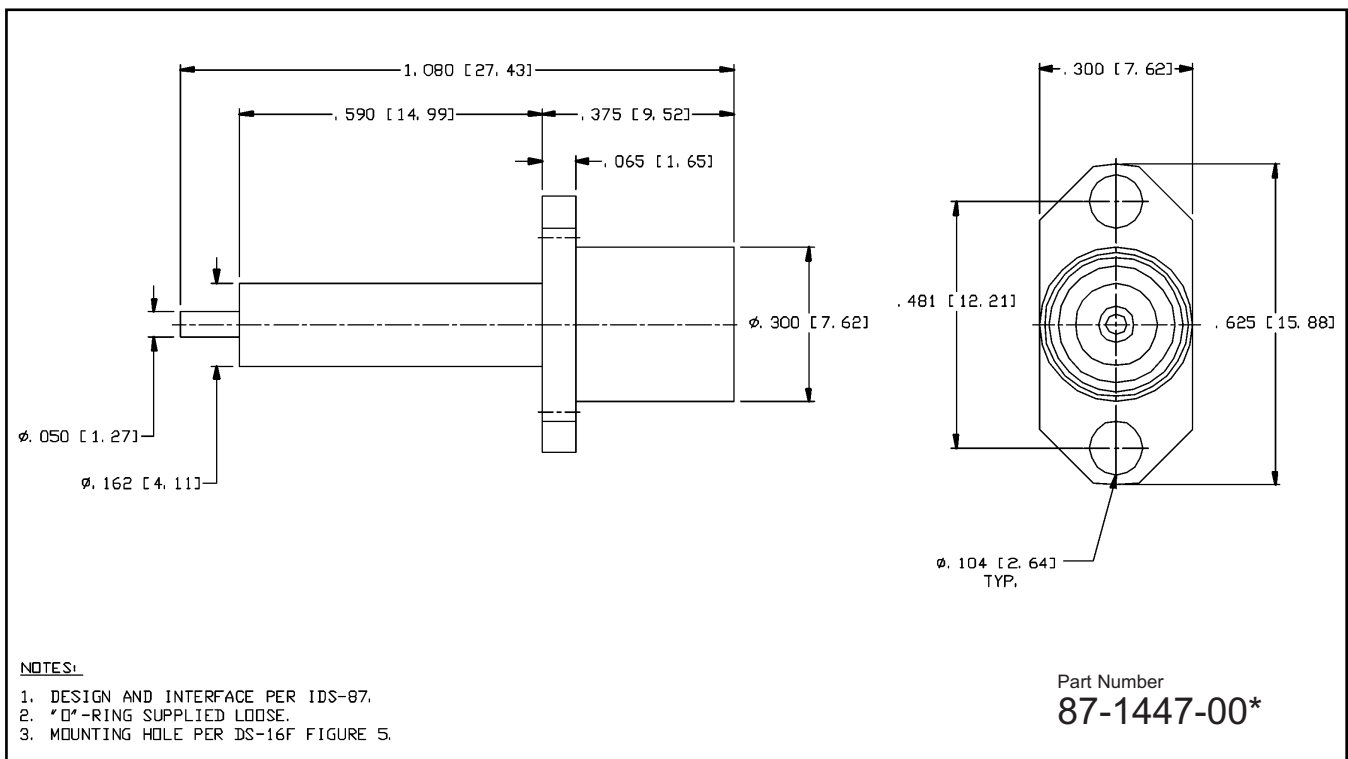
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BMA 87 SERIES

BMA Blind Mate Plug, 2 Hole Panel Mount

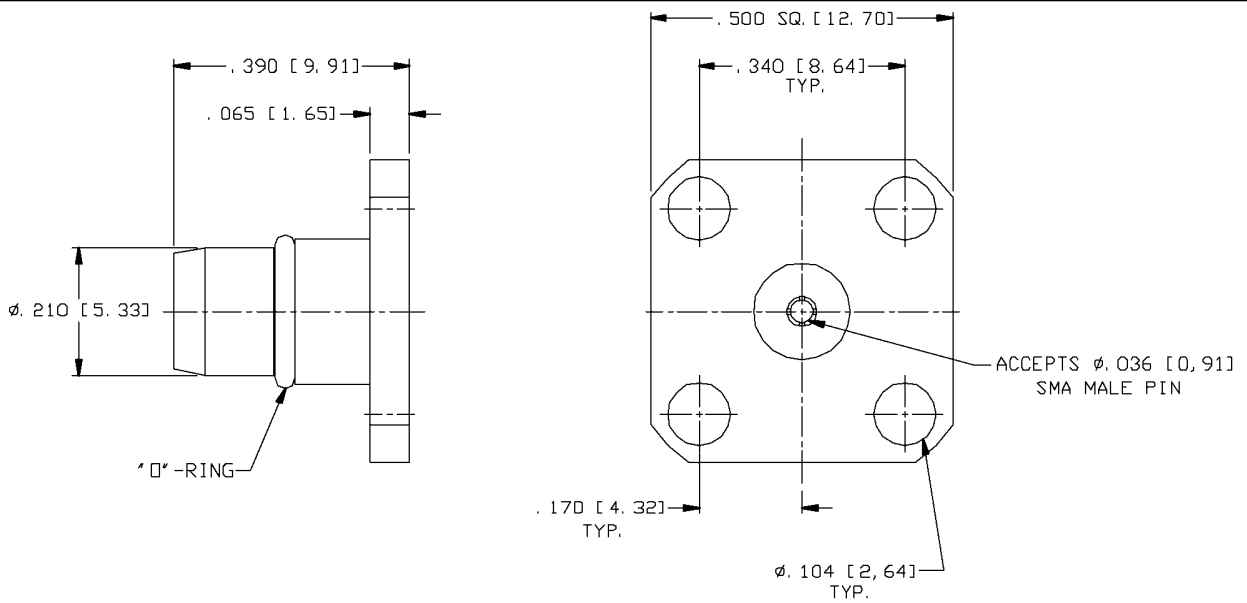


BMA Blind Mate Jack, 2 Hole Panel Mount



BMA 87 SERIES

BMA Blind Mate Plug, 4 Hole Panel Mount

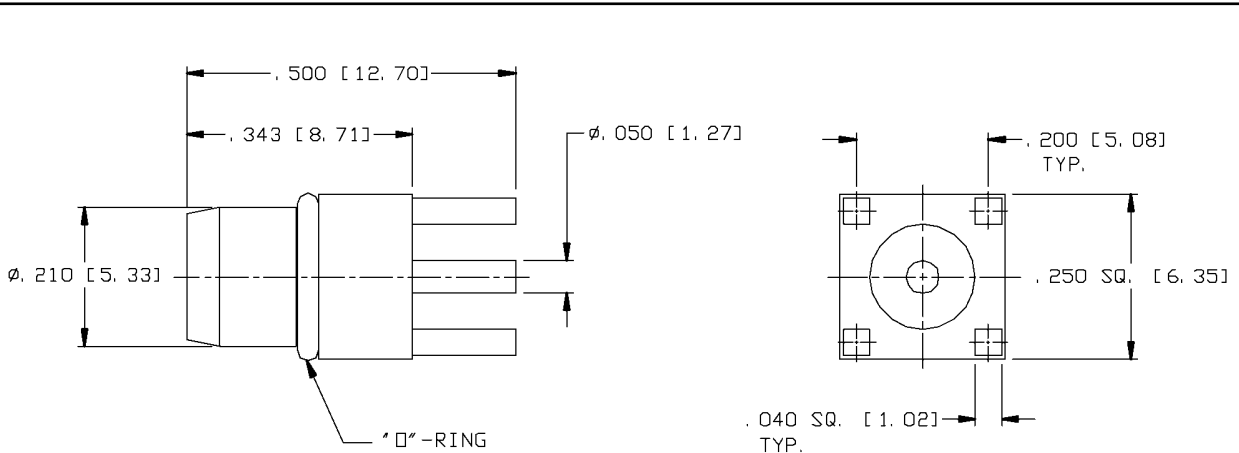


NOTES:

1. DESIGN AND INTERFACE PER IDS-87.
2. 1/8" -RING SUPPLIED LOOSE.
3. MOUNTING HOLE PER DS-16G FIGURE 5.

Part Number
87-0555-00*

BMA Blind Mate Plug, PCB Mount



NOTES:

1. DESIGN AND INTERFACE PER IDS-87.
2. 1/8" -RING SUPPLIED LOOSE.
3. MOUNTING HOLE PER DS-16E FIGURE 9.

Part Number
87-0450-00*

