



High Frequency RF Coaxial Connectors Catalog

SMA



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DESCRIPTION

High frequency SMA connectors are 50ohms precision connectors feature maximum VSWR of 1.10:1 from DC to 18GHz, and 1.15:1 from 18 to 27GHz. SMA precision connectors are one of the most popular and commonly used connectors in both microwave and RF applications where size, performance and cost are critical considerations. SMA precision connector interface utilizes a PTFE dielectric. Cmppter offers SMA connector for semi-flexi and low loss cables as well as receptacles and precision adapters which maybe adapterd for custom applications.

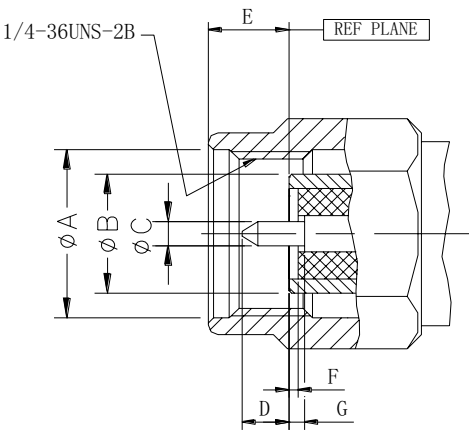
TNCA Design Features

- Excellent performance up to 27GHz
- Low VSWR and insertion loss
- Rugged construction for reliability
- Mechanically compatible with 2.92mm and 3.5mm connector series

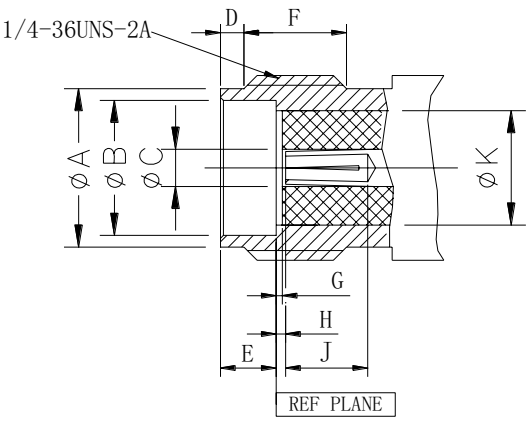
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HIGH FREQUENCY SMA INTERFACE



SMA Male				
	mm		Inch	
	Min	Max	Min	Max
A	6.48	6.73	0.255	0.265
B	4.52	4.59	0.1780	0.1808
C	0.90	0.93	0.0355	0.0365
D	2.03	2.29	0.080	0.090
E	2.59	3.35	0.102	0.132
F	0.00	0.05	0.000	0.002
G	0.00	0.08	0.000	0.003



SMA Female				
	mm		Inch	
	Min	Max	Min	Max
A	5.28	5.49	0.208	0.216
B	4.60	4.67	0.1810	0.1837
C	1.27	1.29	0.0500	0.0506
D	0.38	1.14	0.015	0.045
E	1.88	1.98	0.074	0.078
F	3.81	—	0.150	—
G	0.00	0.05	0.000	0.002
H	0.00	0.08	0.000	0.003
J	2.54	—	0.100	—
K	4.10	4.13	0.1615	0.1625

Interface dimensions conformable to the standards: IEEE STD 287-2007

TECHNICAL DATA



ELECTRICAL DATA	
Impedance	50 Ohm
Frequency range	DC — 27GHz
Dielectric withstanding voltage	1000V
Insulation resistance	$\geq 5000 \text{ M}\Omega$
Contact resistance	inter contact $\leq 3 \text{ m}\Omega$ out contact $\leq 2 \text{ m}\Omega$
VSWR max.	1.10 : 1 (DC to 18GHz), 1.15:1 (18GHz to 27GHz)

MECHANICAL DATA	
Base material	
Centercontact	Copper Beryllium Alloy, Gold-pated
Body	Stainless Steel, Passivated
Insulator	PEI, PTFE
Durability(matings)	≥ 500

ENVIRONMENTAL	
Temperature Range	-55 °C to + 165 °C
Thermal shock	MIL-STD-202, Method 107, Condition B
Corrosion	Saltspray test acc.to MIL-STD-202, Method 101, Condition B
Vibration	MIL-STD-202, Method 204, Condition D

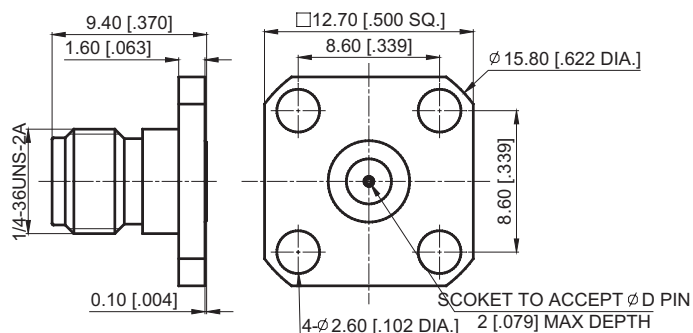
RECEPTACLES WITH ACCEPTS PIN



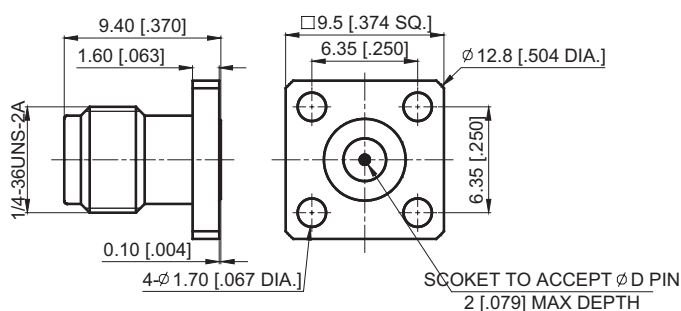
Receptacles, jacks (female), Flange Mount



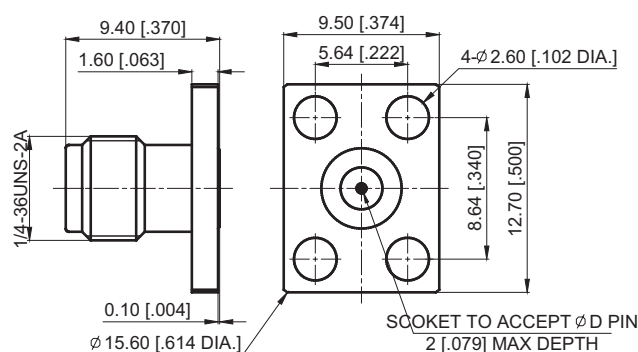
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60-02-9F5-074B	0.30 [.012]
60-02-9F5-074C	0.38 [.015]
60-02-9F5-074D	0.46 [.018]
60-02-9F5-074E	0.51 [.020]



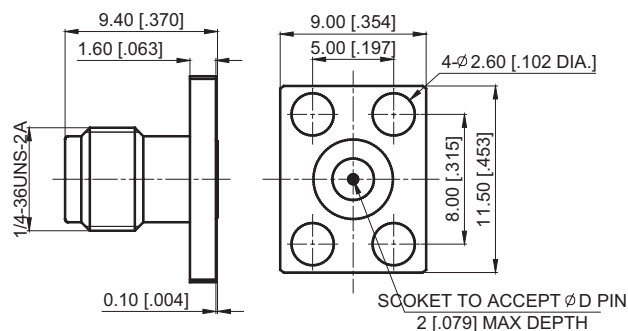
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60-02-9F5-075B	0.30 [.012]
60-02-9F5-075C	0.38 [.015]
60-02-9F5-075D	0.46 [.018]
60-02-9F5-075E	0.51 [.020]



Part Number	Ø D PIN
60-02-9F5-076A	0.23 [.009]
60-02-9F5-076B	0.30 [.012]
60-02-9F5-076C	0.38 [.015]
60-02-9F5-076D	0.46 [.018]
60-02-9F5-076E	0.51 [.020]



Part Number	Ø D PIN
60-02-9F5-077A	0.23 [.009]
60-02-9F5-077B	0.30 [.012]
60-02-9F5-077C	0.38 [.015]
60-02-9F5-077D	0.46 [.018]
60-02-9F5-077E	0.51 [.020]



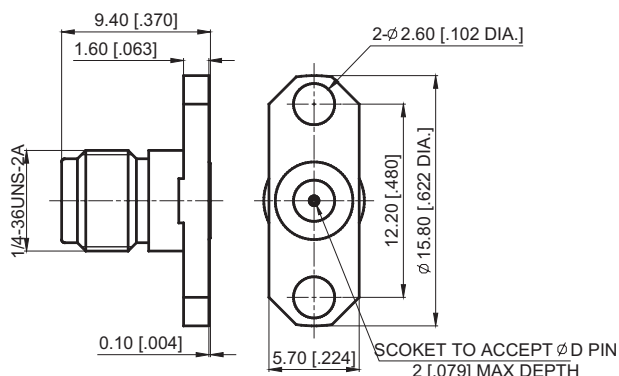
RECEPTACLES WITH ACCEPTS PIN



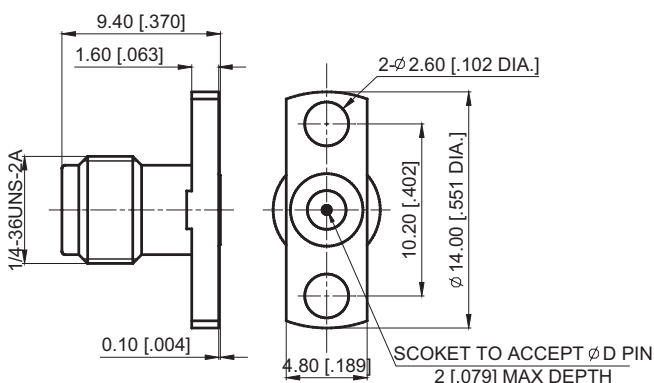
Receptacles, jacks (female), Flange Mount



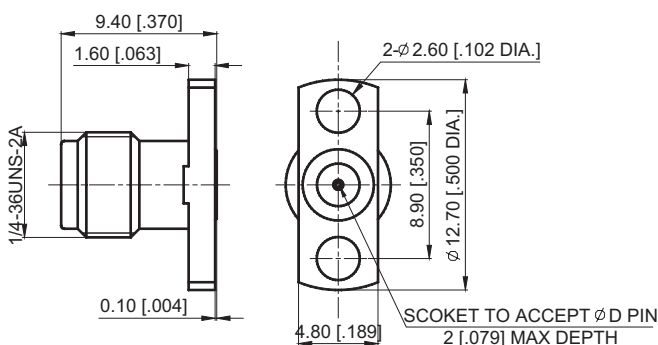
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60-02-9E5-078D	0.46 [.018]
60-02-9E5-078E	0.51 [.020]



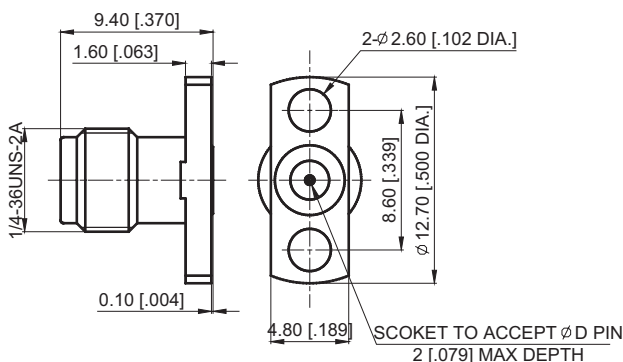
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60-02-9E5-079C	0.38 [.015]
60-02-9E5-079D	0.46 [.018]
60-02-9E5-079E	0.51 [.020]



Part Number	Ø D PIN
60-02-9E5-080A	0.23 [.009]
60-02-9E5-080B	0.30 [.012]
60-02-9E5-080C	0.38 [.015]
60-02-9E5-080D	0.46 [.018]
60-02-9E5-080E	0.51 [.020]



Part Number	Ø D PIN
60-02-9E5-081A	0.23 [.009]
60-02-9E5-081B	0.30 [.012]
60-02-9E5-081C	0.38 [.015]
60-02-9E5-081D	0.46 [.018]
60-02-9E5-081E	0.51 [.020]



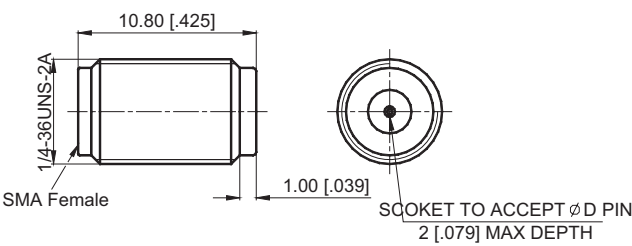
RECEPTACLES WITH ACCEPTS PIN



Receptacles, jacks (female), Bulkhead Thread in



Part Number	Ø D PIN
60-02-9A5-082A	0.23 [.009]
60-02-9A5-082B	0.30 [.012]
60-02-9A5-082C	0.38 [.015]
60-02-9A5-082D	0.46 [.018]
60-02-9A5-082E	0.51 [.020]



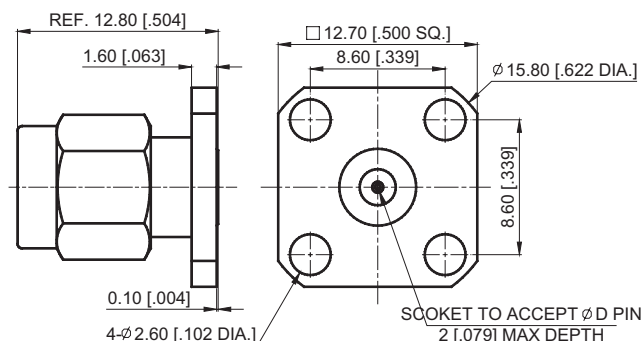
RECEPTACLES WITH ACCEPTS PIN



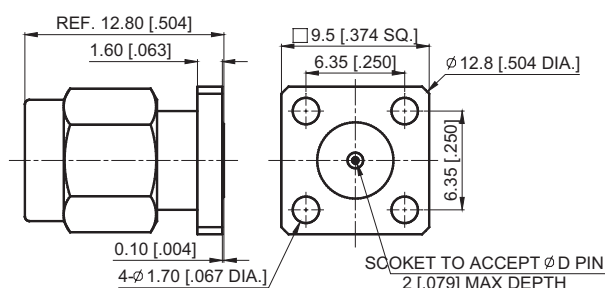
Receptacles, plugs (male), Flange Mount



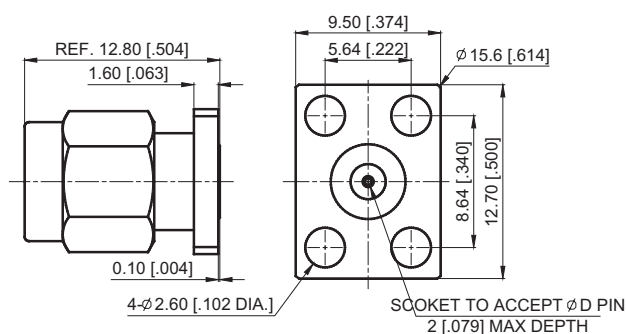
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60-03-9F5-083B	0.30 [.012]
60-03-9F5-083C	0.38 [.015]
60-03-9F5-083D	0.46 [.018]
60-03-9F5-083E	0.51 [.020]



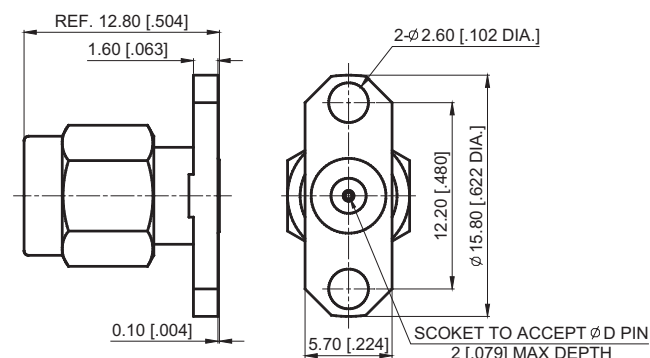
Part Number	Ø D PIN
60-03-9F5-084A	0.23 [.009]
60-03-9F5-084B	0.30 [.012]
60-03-9F5-084C	0.38 [.015]
60-03-9F5-084D	0.46 [.018]
60-03-9F5-084E	0.51 [.020]



Part Number	Ø D PIN
60-03-9F5-085A	0.23 [.009]
60-03-9F5-085B	0.30 [.012]
60-03-9F5-085C	0.38 [.015]
60-03-9F5-085D	0.46 [.018]
60-03-9F5-085E	0.51 [.020]



Part Number	Ø D PIN
60-03-9E5-086A	0.23 [.009]
60-03-9E5-086B	0.30 [.012]
60-03-9E5-086C	0.38 [.015]
60-03-9E5-086D	0.46 [.018]
60-03-9E5-086E	0.51 [.020]



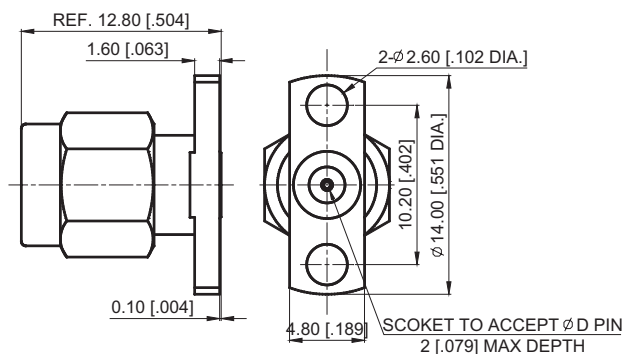
RECEPTACLES WITH ACCEPTS PIN



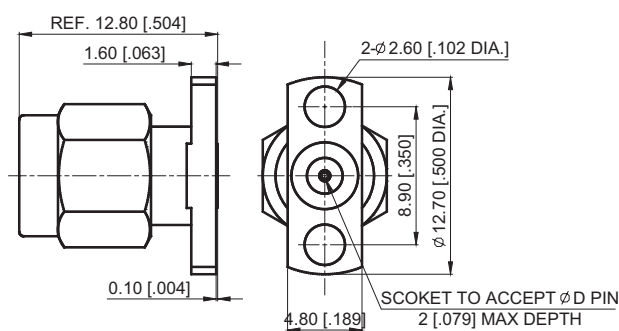
Receptacles, plugs (male), Flange Mount



Part Number	∅ D PIN
60-03-9E5-087A	0.23 [.009]
60-03-9E5-087B	0.30 [.012]
60-03-9E5-087C	0.38 [.015]
60-03-9E5-087D	0.46 [.018]
60-03-9E5-087E	0.51 [.020]



Part Number	∅ D PIN
60-03-9E5-088A	0.23 [.009]
60-03-9E5-088B	0.30 [.012]
60-03-9E5-088C	0.38 [.015]
60-03-9E5-088D	0.46 [.018]
60-03-9E5-088E	0.51 [.020]



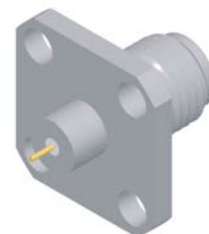
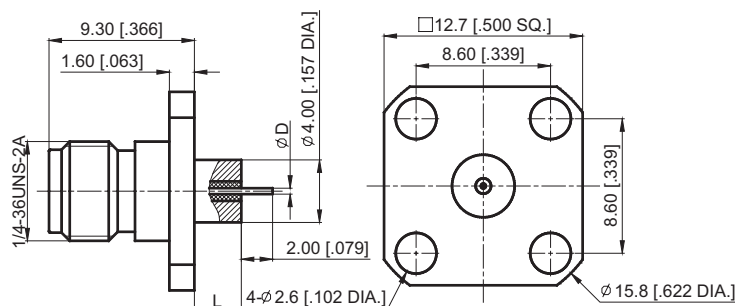
RECEPTACLES, METAL THROUGH THE WALL



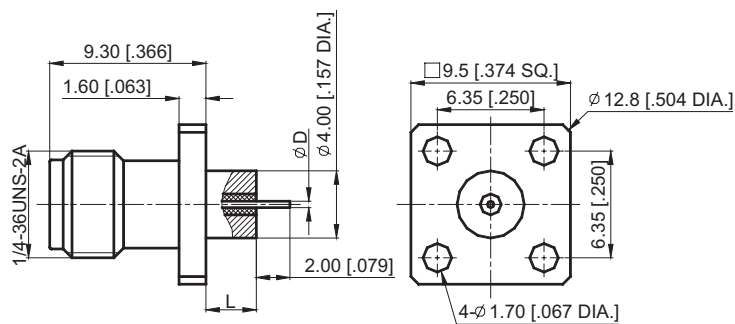
Receptacles, jacks (female), Flange Mount



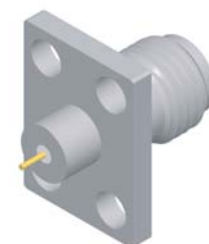
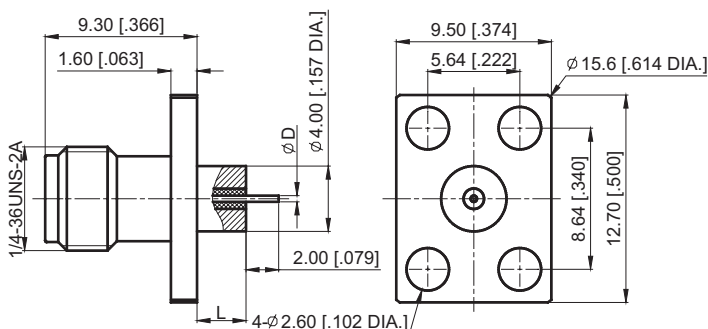
Part Number	∅ D	L
60-02-9F2-089A	0.80 [.031]	4 [.157]
60-02-9F2-089B	0.38 [.015]	3 [.118]



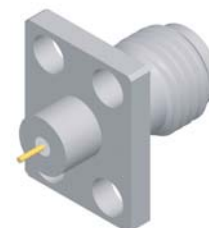
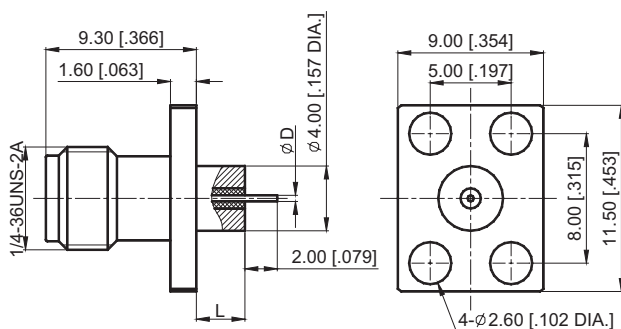
Part Number	∅ D	L
60-02-9F2-090A	0.80 [.031]	4 [.157]
60-02-9F2-090B	0.38 [.015]	3 [.118]



Part Number	∅ D	L
60-02-9F2-091A	0.80 [.031]	4 [.157]
60-02-9F2-091B	0.38 [.015]	3 [.118]



Part Number	∅ D	L
60-02-9F2-092A	0.80 [.031]	4 [.157]
60-02-9F2-092B	0.38 [.015]	3 [.118]



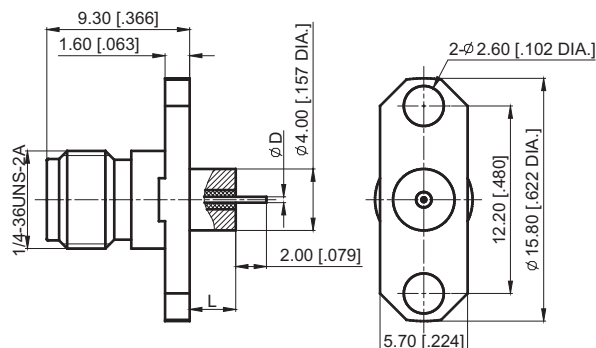
RECEPTACLES, METAL THROUGH THE WALL



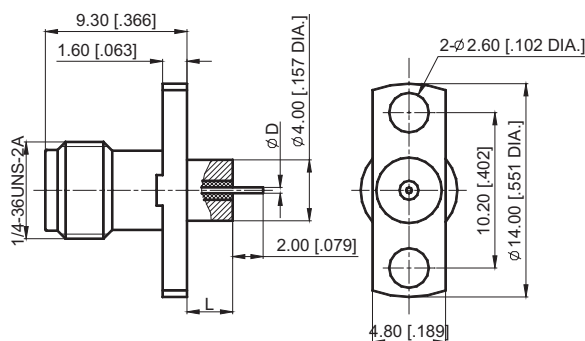
Receptacles, jacks (female), Flange Mount



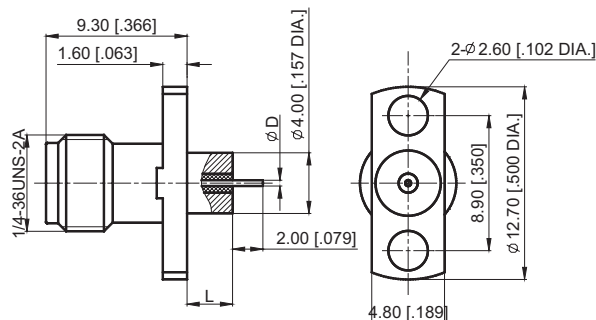
Part Number	∅ D	L
60-02-9E2-093A	0.80 [.031]	4 [.157]
60-02-9E2-093B	0.38 [.015]	3 [.118]



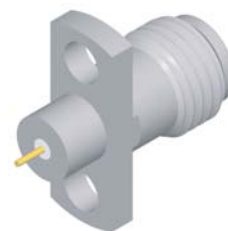
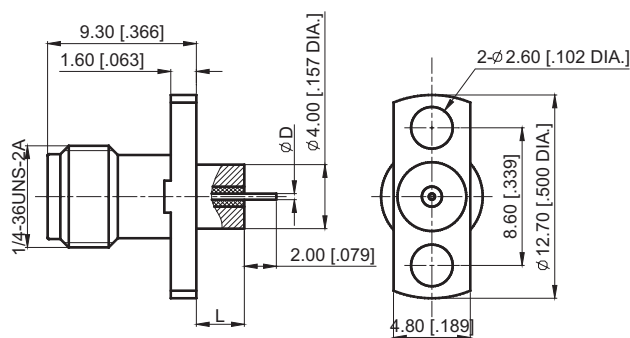
Part Number	∅ D	L
60-02-9E2-094A	0.80 [.031]	4 [.157]
60-02-9E2-094B	0.38 [.015]	3 [.118]



Part Number	∅ D	L
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Part Number	∅ D	L
60-02-9E2-096A	0.80 [.031]	4 [.157]
60-02-9E2-096B	0.38 [.015]	3 [.118]



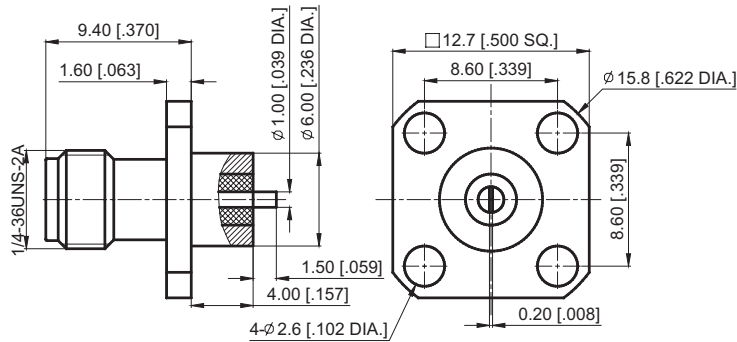
RECEPTACLES, METAL THROUGH THE WALL



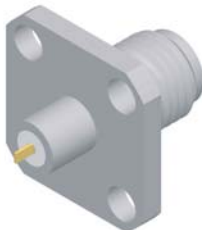
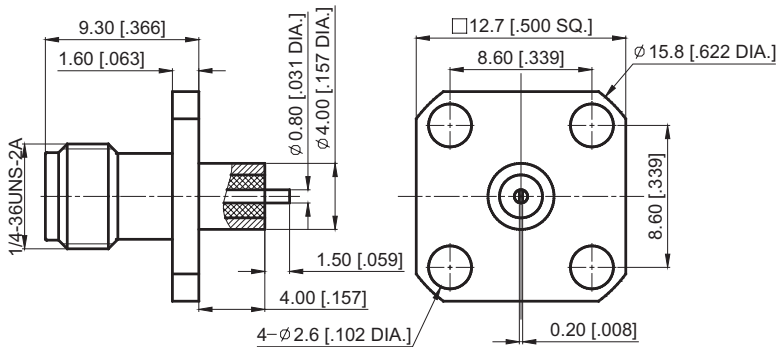
Receptacles, jacks (female), Flange Mount



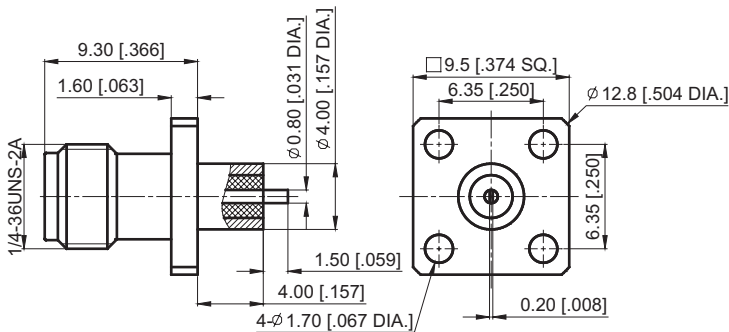
Part Number
60-02-9F6-097



Part Number
60-02-9F6-098



Part Number
60-02-9F6-099



Part Number	Figure
60-02-9F6-100A	Fig. 1
60-02-9F6-100B	Fig. 2

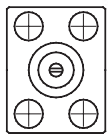
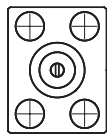
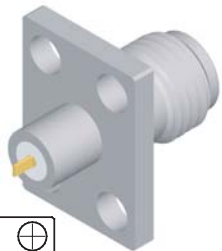
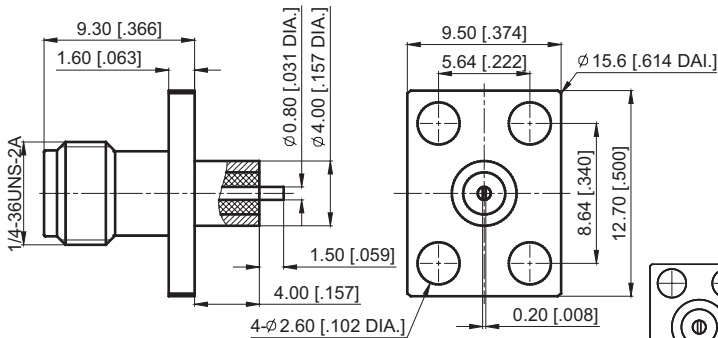


Fig. 1

Fig. 2

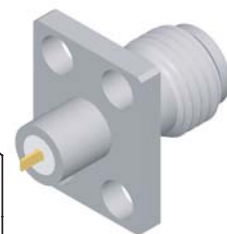
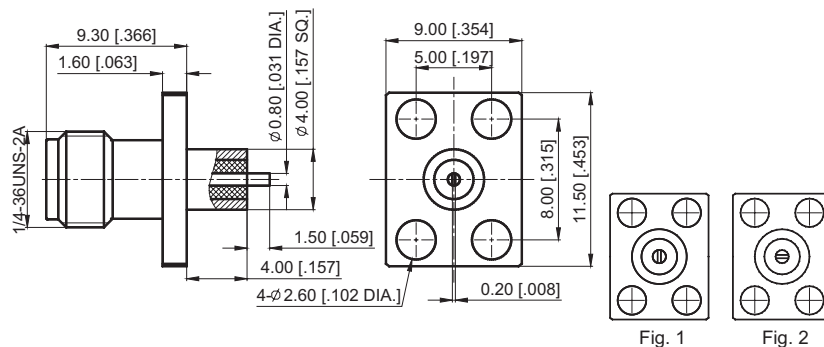
RECEPTACLES, METAL THROUGH THE WALL



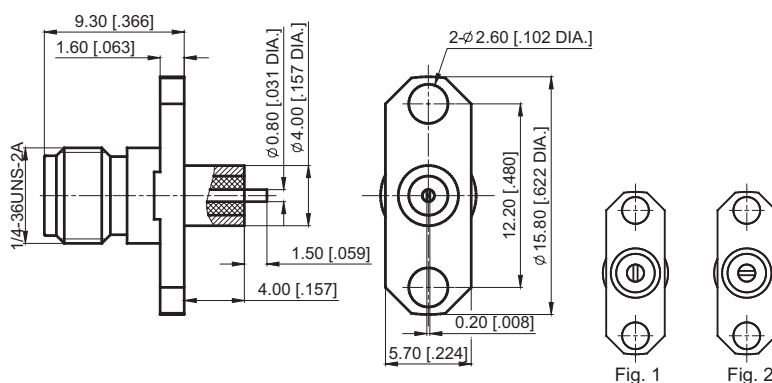
Receptacles, jacks (female), Flange Mount



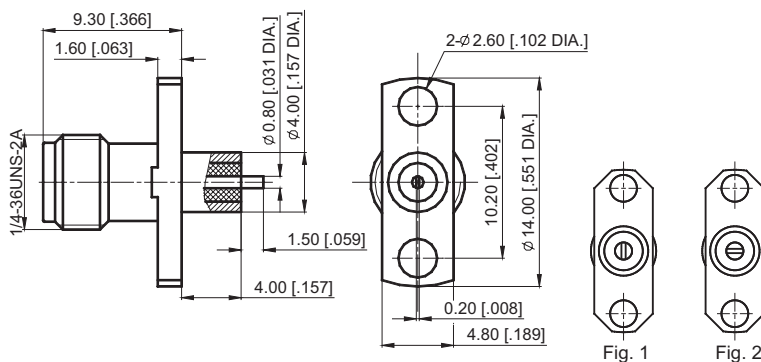
Part Number	Figure
60-02-9F6-101A	Fig. 1
60-02-9F6-101B	Fig. 2



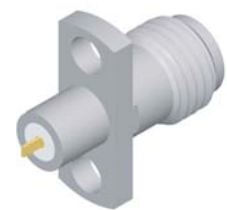
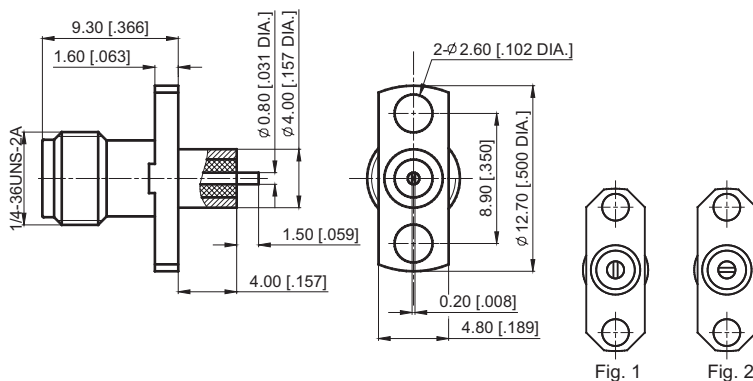
Part Number	Figure
60-02-9E6-102A	Fig. 1
60-02-9E6-102B	Fig. 2



Part Number	Figure
60-02-9E6-103A	Fig. 1
60-02-9E6-103B	Fig. 2



Part Number	Figure
60-02-9E6-104A	Fig. 1
60-02-9E6-104B	Fig. 2



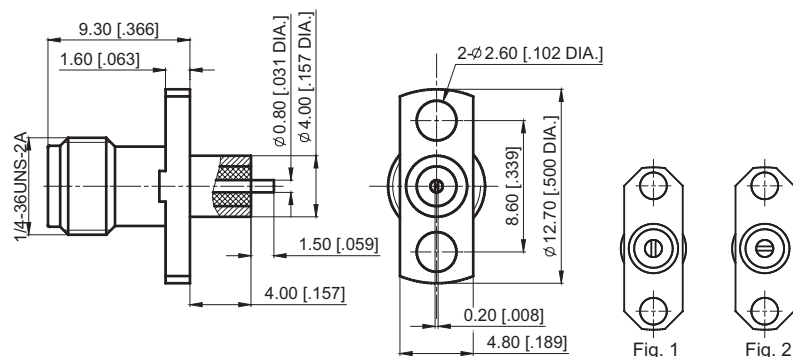
RECEPTACLES, METAL THROUGH THE WALL



Receptacles, jacks (female), Flange Mount

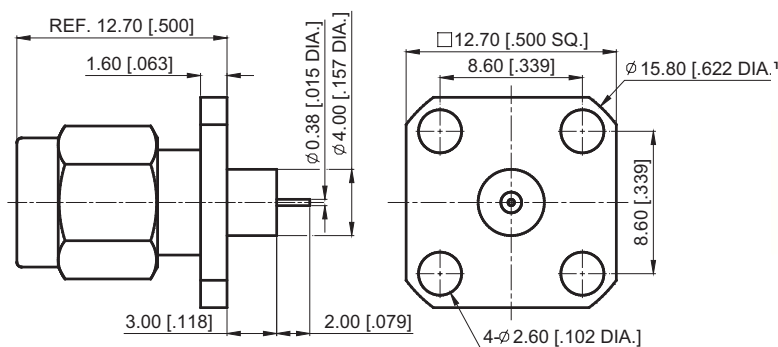


Part Number	Figure
60-02-9E6-105A	Fig. 1
60-02-9E6-105B	Fig. 2

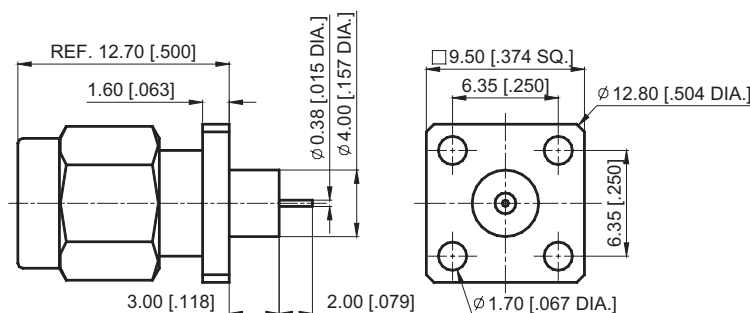


Receptacles, plugs (male), Flange Mount

Part Number
60-03-9F2-107



Part Number
60-03-9F2-108



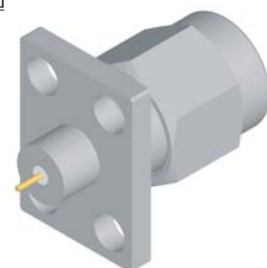
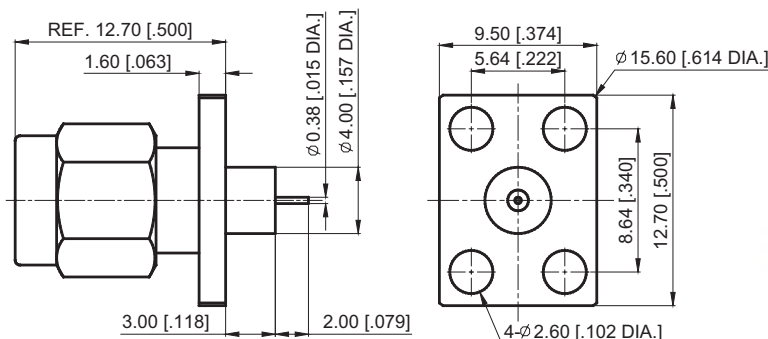
RECEPTACLES, METAL THROUGH THE WALL



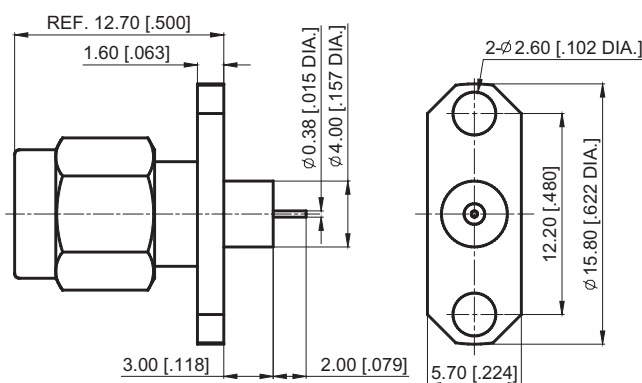
Receptacles, plugs (male), Flange Mount



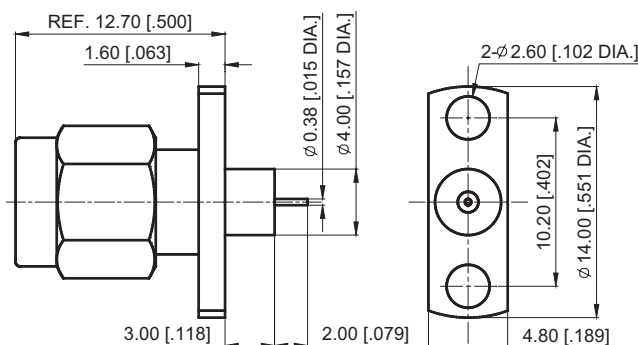
Part Number
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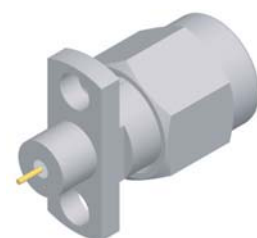
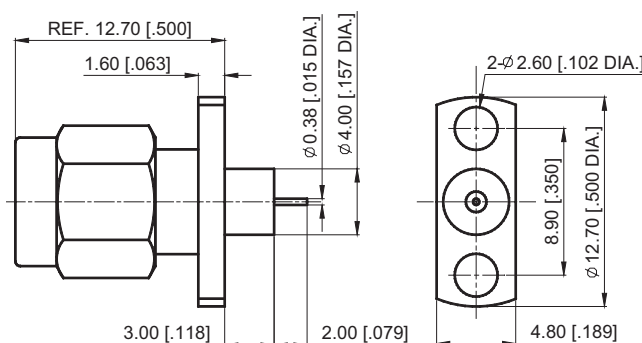
Part Number
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Part Number
60-03-9E2-111



Part Number
60-03-9E2-112

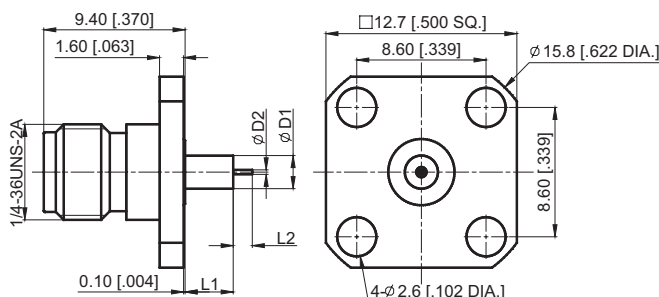


RECEPTACLES, INSULATOR THROUGH THE WALL **CMP[®]**

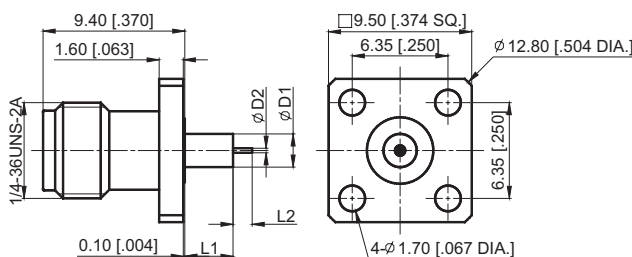
Receptacles, jacks (female), Flange Mount



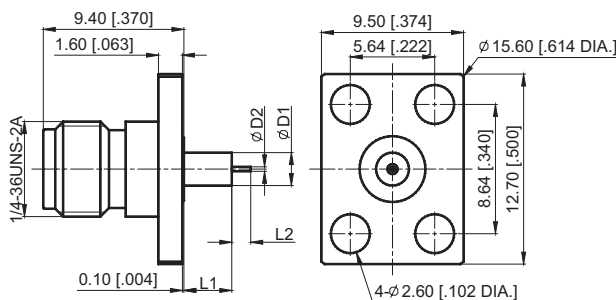
Part Number	∅ D1	∅ D2	L1	L2
60-02-9F2-113A	2.2 [.087]	0.30 [.012]	3.2 [.126]	1.27 [.050]
60-02-9F2-113B	3.9 [.154]	0.64 [.025]	15 [.591]	3 [.118]
60-02-9F2-113C	2.1 [.083]	0.64 [.025]	15 [.591]	3 [.118]



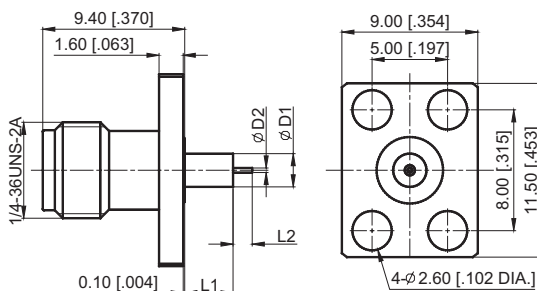
Part Number	∅ D1	∅ D2	L1	L2
60-02-9F2-114A	2.2 [.087]	0.30 [.012]	3.2 [.126]	1.27 [.050]
60-02-9F2-114B	2.1 [.083]	0.64 [.025]	15 [.591]	3 [.118]



Part Number	∅ D1	∅ D2	L1	L2
60-02-9F2-115A	2.2 [.087]	0.30 [.012]	3.2 [.126]	1.27 [.050]
60-02-9F2-115B	2.1 [.083]	0.64 [.025]	15 [.591]	3 [.118]



Part Number	∅ D1	∅ D2	L1	L2
60-02-9F2-116A	2.2 [.087]	0.30 [.012]	3.2 [.126]	1.27 [.050]
60-02-9F2-116B	2.1 [.083]	0.64 [.025]	15 [.591]	3 [.118]

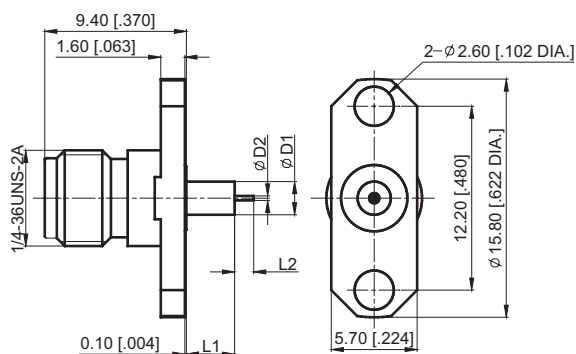


RECEPTACLES, INSULATOR THROUGH THE WALL **CMP_{PT}ER[®]**

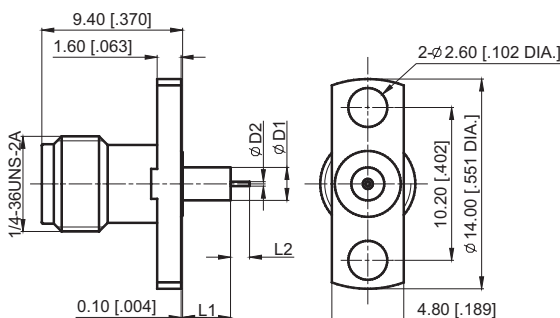
Receptacles, jacks (female), Flange Mount



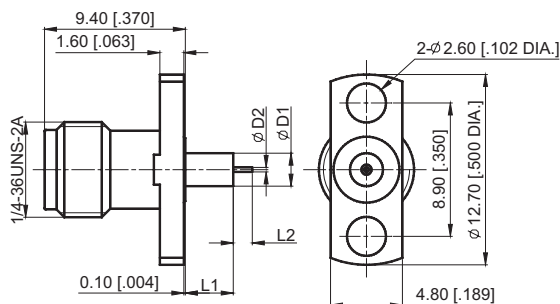
Part Number	∅ D1	∅ D2	L1	L2
60-02-9E2-117A	2.2 [.087]	0.30 [.012]	3.2 [.126]	1.27 [.050]
60-02-9E2-117B	3.9 [.154]	0.64 [.025]	15 [.591]	3 [.118]
60-02-9E2-117C	2.1 [.083]	0.64 [.025]	15 [.591]	3 [.118]



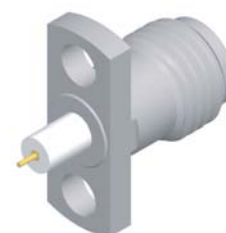
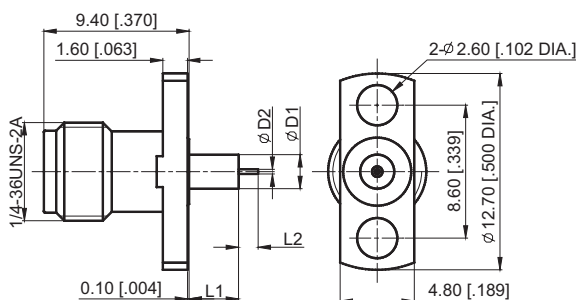
Part Number	∅ D1	∅ D2	L1	L2
60-02-9E2-118A	2.2 [.087]	0.30 [.012]	3.2 [.126]	1.27 [.050]
60-02-9E2-118B	2.1 [.083]	0.64 [.025]	15 [.591]	3 [.118]



Part Number	∅ D1	∅ D2	L1	L2
60-02-9E2-119A	2.2 [.087]	0.30 [.012]	3.2 [.126]	1.27 [.050]
60-02-9E2-119B	2.1 [.083]	0.64 [.025]	15 [.591]	3 [.118]



Part Number	∅ D1	∅ D2	L1	L2
60-02-9E2-120A	2.2 [.087]	0.30 [.012]	3.2 [.126]	1.27 [.050]
60-02-9E2-120B	2.1 [.083]	0.64 [.025]	15 [.591]	3 [.118]

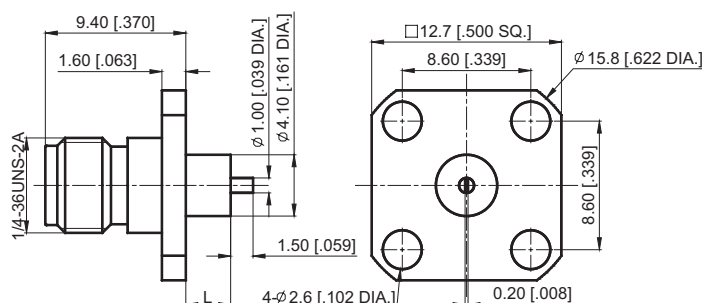


RECEPTACLES, INSULATOR THROUGH THE WALL **CMP[®]**

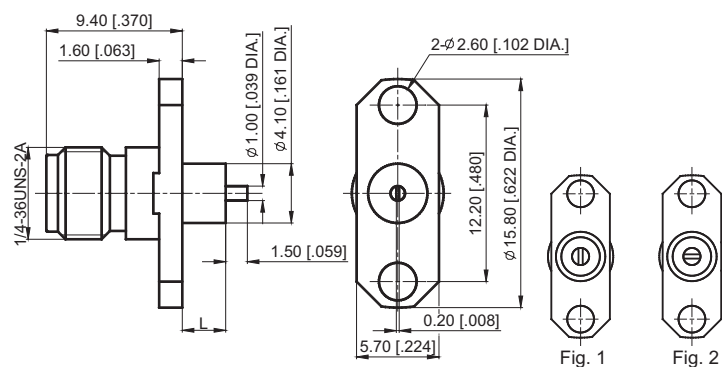
Receptacles, jacks (female), Flange Mount



Part Number	L
60-02-9F6-121A	3 [.118]
60-02-9F6-121B	4 [.157]

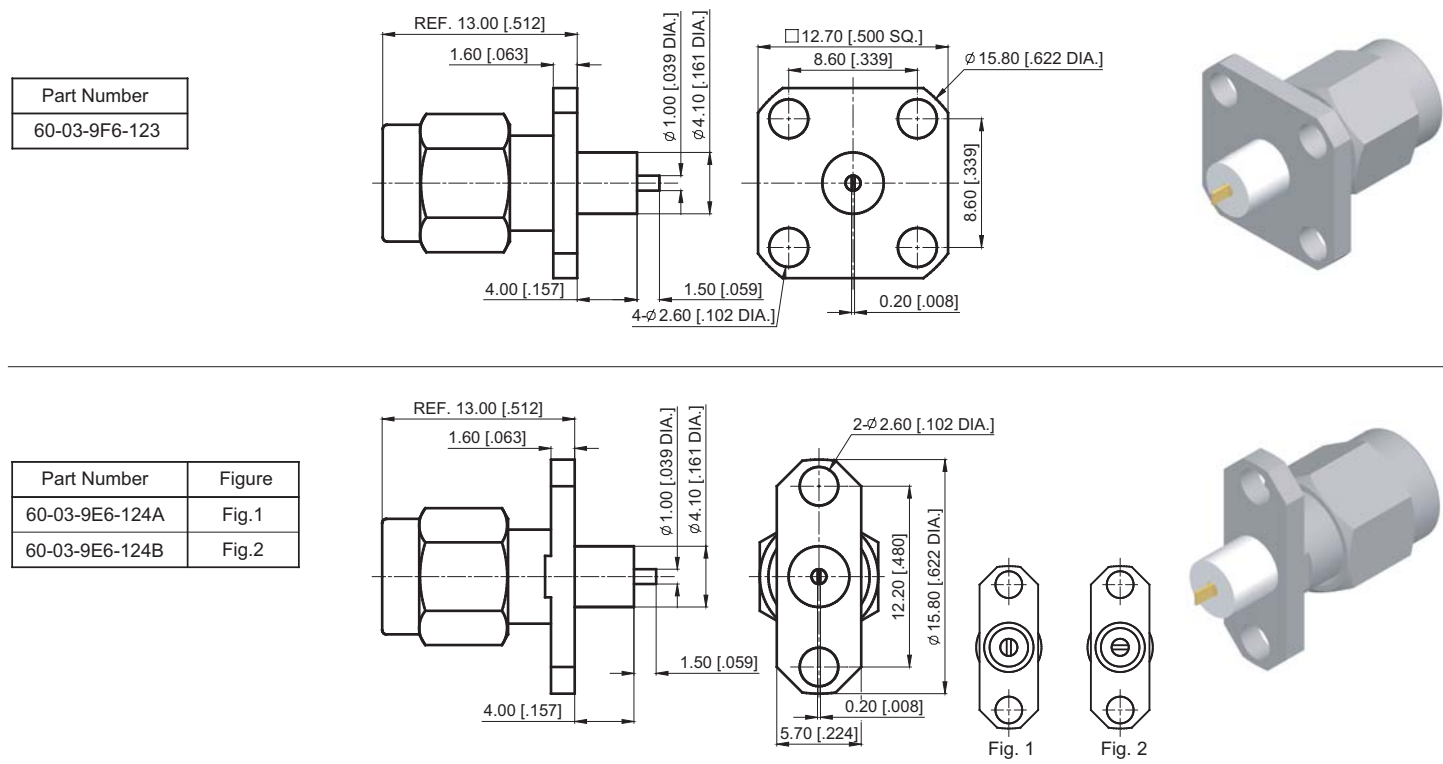


Part Number	L	Figure
60-02-9E6-122A	3 [.118]	Fig.1
60-02-9E6-122B	3 [.118]	Fig.2
60-02-9E6-122C	4 [.157]	Fig.1
60-02-9E6-122D	4 [.157]	Fig.2



RECEPTACLES, INSULATOR THROUGH THE WALL

Receptacles, plugs (male), Flange Mount



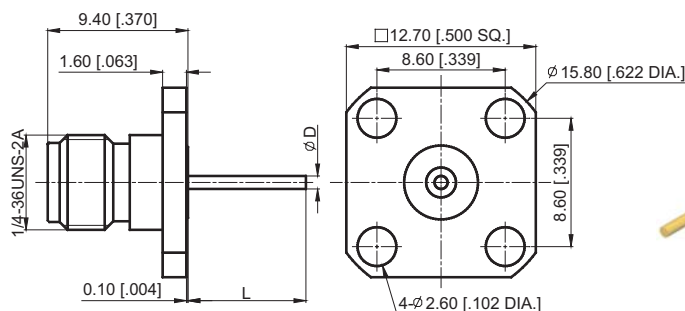
RECEPTACLES, AIR LINE THROUGH THE WALL



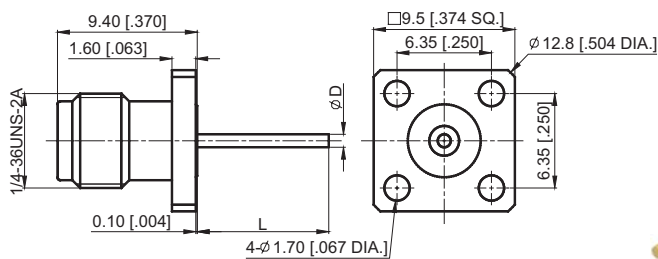
Receptacles, jacks (female), Flange Mount



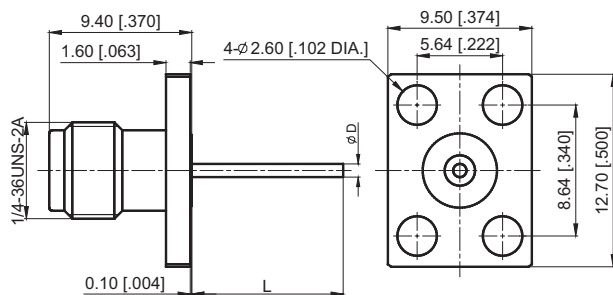
Part Number	Ø D PIN	L
60-02-9F2-125A	0.64 [.025]	18 [.709]
60-02-9F2-125B	0.87 [.034]	26 [1.024]
60-02-9F2-125C	0.87 [.034]	10.92 [.430]



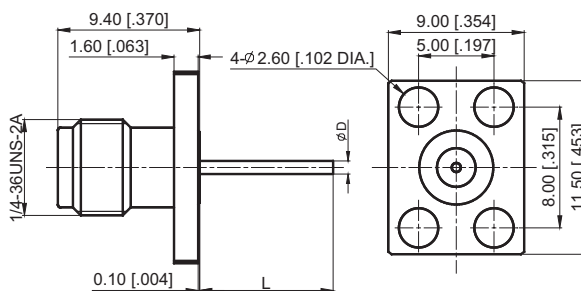
Part Number	Ø D PIN	L
60-02-9F2-126A	0.64 [.025]	18 [.709]
60-02-9F2-126B	0.87 [.034]	26 [1.024]
60-02-9F2-126C	0.87 [.034]	10.92 [.430]



Part Number	Ø D PIN	L
60-02-9F2-127A	0.64 [.025]	18 [.709]
60-02-9F2-127B	0.87 [.034]	26 [1.024]
60-02-9F2-127C	0.87 [.034]	10.92 [.430]



Part Number	Ø D PIN	L
60-02-9F2-128A	0.64 [.025]	18 [.709]
60-02-9F2-128B	0.87 [.034]	26 [1.024]
60-02-9F2-128C	0.87 [.034]	10.92 [.430]



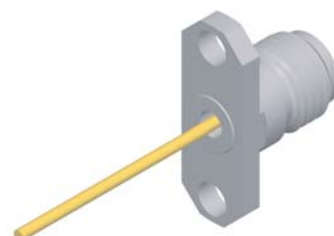
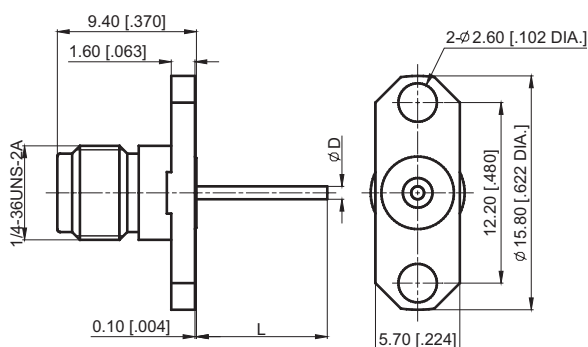
RECEPTACLES, AIR LINE THROUGH THE WALL



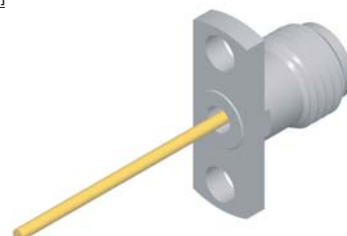
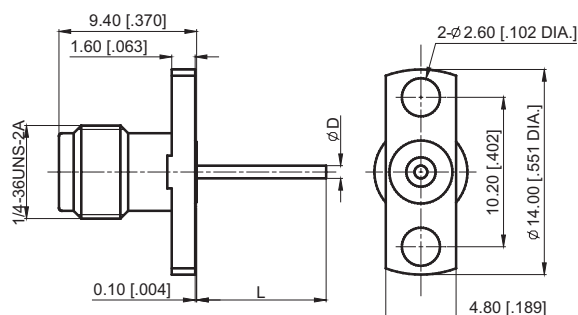
Receptacles, jacks (female), Flange Mount



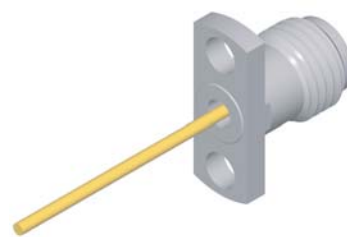
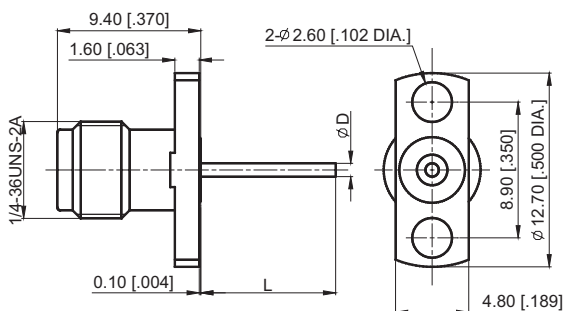
Part Number	Ø D PIN	L
60-02-9E2-129A	0.64 [.025]	18 [.709]
60-02-9E2-129B	0.87 [.034]	26 [1.024]
60-02-9E2-129C	0.87 [.034]	10.92 [.430]



Part Number	Ø D PIN	L
60-02-9E2-130A	0.64 [.025]	18 [.709]
60-02-9E2-130B	0.87 [.034]	26 [1.024]
60-02-9E2-130C	0.87 [.034]	10.92 [.430]



Part Number	Ø D PIN	L
60-02-9E2-131A	0.64 [.025]	18 [.709]
60-02-9E2-131B	0.87 [.034]	26 [1.024]
60-02-9E2-131C	0.87 [.034]	10.92 [.430]

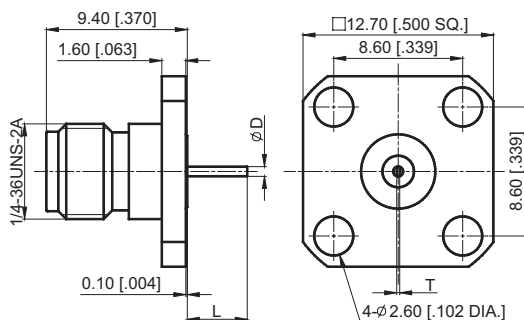


RECEPTACLES WITH TAB

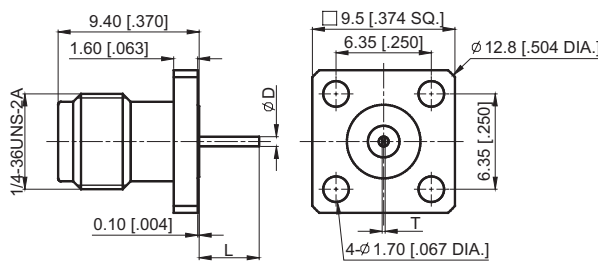
Receptacles, jacks (female), Flange Mount



Part Number	∅ D PIN	L	T
60-02-9F6-132A	0.65 [.026]	4 [.157]	0.2 [.008]
60-02-9F6-132B	1.27 [.050]	1.27 [.050]	0.15 [.006]



Part Number	∅ D PIN	L	T
60-02-9F6-133A	0.65 [.026]	4 [.157]	0.2 [.008]
60-02-9F6-133B	1.27 [.050]	1.27 [.050]	0.15 [.006]



Part Number	∅ D PIN	L	T	Figure
60-02-9F6-134A	0.65 [.026]	4 [.157]	0.2 [.008]	Fig.1
60-02-9F6-134B	0.65 [.026]	4 [.157]	0.2 [.008]	Fig.2
60-02-9F6-134C	1.27 [.050]	1.27 [.050]	0.15 [.006]	Fig.1
60-02-9F6-134D	1.27 [.050]	1.27 [.050]	0.15 [.006]	Fig.2

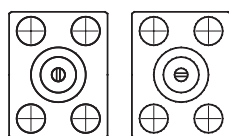
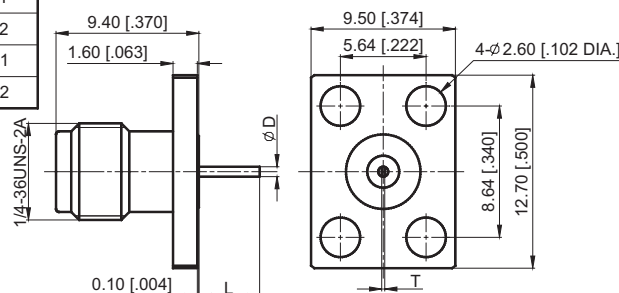


Fig. 1

Fig. 2



Part Number	∅ D PIN	L	T	Figure
60-02-9F6-135A	0.65 [.026]	4 [.157]	0.2 [.008]	Fig.1
60-02-9F6-135B	0.65 [.026]	4 [.157]	0.2 [.008]	Fig.2
60-02-9F6-135C	1.27 [.050]	1.27 [.050]	0.15 [.006]	Fig.1
60-02-9F6-135D	1.27 [.050]	1.27 [.050]	0.15 [.006]	Fig.2

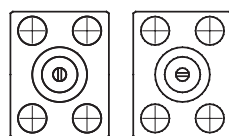
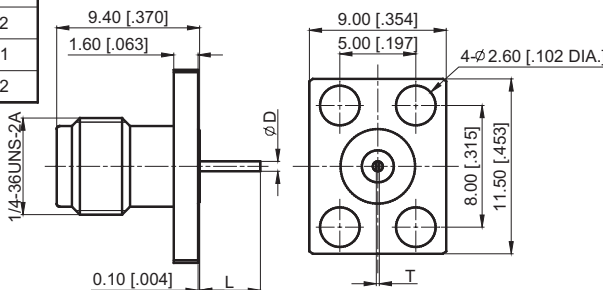


Fig. 1

Fig. 2



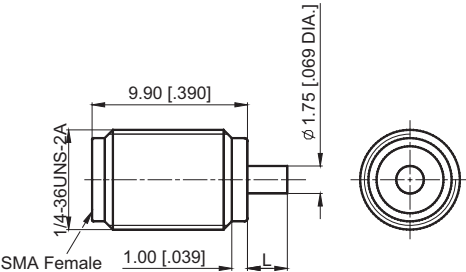
RECEPTACLES, BULKHEAD THREAD IN



Receptacles, jacks (female)



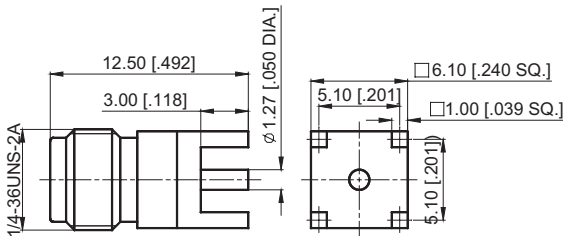
Part Number	L
60-02-9A2-136A	2.54 [.100]
60-02-9A2-136B	4.7 [.185]



PCB CONNECTORS

Straight PCB jacks(female)

Part Number
60-02-5M2-137



Part Number	D	L	Board Thickness
60-02-5M2-069A	1.93 [.076]	0.6 [.023]	1.78 [.070]
60-02-5M2-069B	0.76 [.030]	0.6 [.023]	0.61 [.024]
60-02-5M2-069C	1.02 [.040]	0.6 [.023]	0.87 [.034]
60-02-5M2-069D	1.93 [.076]	1.22 [.048]	1.78 [.070]
60-02-5M2-069E	0.76 [.030]	1.22 [.048]	0.61 [.024]
60-02-5M2-069F	1.02 [.040]	1.22 [.048]	0.87 [.034]

