

COAXIAL

Coaxial is the description for electrical feedthroughs with parallel and concentric conductor paths, and with the inner most conductor path electrically isolated from the vacuum flange. Grounded Shield versions have one isolated path, and Floating Shield versions have two. Coaxial feedthroughs are single-ended or double-ended, and all types include air-side connectors.

MPF offers several mounting options for coaxial feedthroughs: Weldable, Quick Flange (QF), and Conflat Flange (CF). Most designs are also configured for Baseplate and NPT style adapters. Custom adapters, plates and flange configurations are available by request.

BNC and MHV

Bayonet Naval Connector (BNC) feedthroughs are very popular due to their quick connect coupling and compact overall size. BNC series are commonly used for low power transmission and are rated to 500 Volts DC.

Miniature High Voltage (MHV) feedthroughs are very similar to the BNC series, but the MHV series is capable of handling much higher power transmission. Although they are very similar in design, MHV and BNC connectors are not compatible. MHV feedthroughs and mating connectors are rated to 5000 Volts DC.



SHV-5 and SHV-10

Safe High Voltage (SHV) feedthroughs are like the MHV series, with the primary difference being the pin and contact configuration. SHV cable connectors have a recessed female contact which helps prevent shock hazards when the connector is disengaged.

This recessed contact design is an improvement over the MHV design, and becomes increasingly important in higher power applications. The SHV-5 and SHV-10 series are rated for up to 5 Amps and 5000 or 10,000 Volts DC respectively. Both are offered in single and double-ended versions.



SHV-20 and SHV-B

SHV-20 feedthroughs are rated for 20,000 Volts DC and up to 15 Amps. These specially designed interfaces incorporate standard high voltage contacts, and are designed for increased performance in pulsed high voltage applications.

SHV-B feedthroughs are designed for bakeout at higher temperatures than the other SHV series. The air-side cable connectors included with these feedthroughs utilize a ceramic dielectric material. SHV-B feedthroughs and connectors are rated for 7500 Volts DC and up to 3 Amps.





Type N and SMA - Standard

Type N feedthroughs combine the most popular medium-sized high frequency connector with a feedthrough designed to perform in high and ultra-high vacuum applications. The standard Type N series is suitable for use to 1 GHz. Type N feedthroughs and mating connectors are rated for 500 Volts DC and up to 3 Amps.

Subminiature Type-A (SMA) feedthroughs are compact designs suited for medium-to-high frequency applications. Similar to the Type N series, the standard SMA series is suitable for use to 1 GHz. SMA feedthroughs and connectors are rated for 700 Volts DC and up to 1 Amp. The floating shield version is rated to 2500 Volts DC.



Type N and SMA - 50 Ohm - Matched Impedance

Both Type N and SMA feedthroughs are also offered with increased signal transmission performance. These high-vacuum feedthrough designs have been engineered for improved RF performance in high frequency applications up to 8 GHz.

Unlike the standard Type N and SMA feedthroughs which are intended for UHV applications, these matched impedance versions utilize a Teflon dielectric spacer. This design parameter optimizes electrical performance but requires consideration in some vacuum environments.

High Performance SMA rated to 18 Ghz also available.



Microdot and Between Series

Microdot style feedthroughs are the smallest UHV design with a threaded connector interface. This connector style is commonly used in vacuum coating applications, particularly in the construction of crystal sensor deposition monitors.

Crystal Sensor assemblies often utilize a BNC-Microdot 'between series' feedthrough, which is designed with a BNC connection on the air-side and a Microdot connection on the vacuum-side. Standard configurations available.

Type N to SMA feedthroughs are typically used in Beam Position Monitor (BPM) applications. Single, double, and custom configurations are available.

Operating Conditions

The electrical and thermal ratings specified are safe operating limits determined by various factors including material properties, mechanical design, and the intended operating environment. All electrical ratings are based on operation with one side in dry atmosphere and the other side in vacuum of 1×10^{-4} Torr maximum pressure. Temperature ratings for various mounting options may reduce the operating range of an assembly. All assemblies have a maximum thermal gradient of 25°C per minute and may be damaged if this limit is exceeded.

COAXIAL

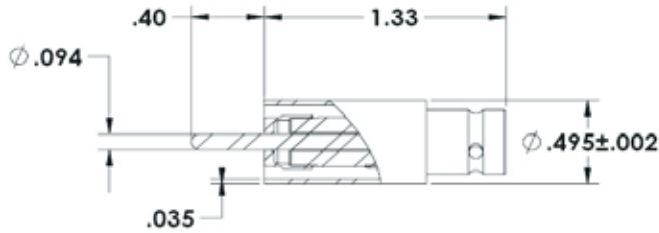
Section 5:

Section	Type	Sub-type	Grounded / Floating Shield	Single / Double Ended
5.1	BNC		Grounded	Single / Double
			Floating	Single / Double
5.2	MHV		Grounded	Single / Double
			Floating	Single / Double
5.3	SHV	SHV-5	Grounded	Single / Double
		SHV-5	Floating	Single
		SHV-10	Grounded	Single / Double
		SHV-20	Grounded	Single
		SHV-B	Grounded	Single
5.4	Type N	Standard	Grounded	Single
		High Frequency	Grounded	Single / Double
5.5	SMA	Standard	Grounded	Single
		Standard	Floating	Single
		High Frequency	Grounded	Single / Double
5.6	Microdot		Grounded	Single
5.7	Between Series	BNC to Microdot	Grounded	Double
		Type N to SMA	Grounded	Double

Contents

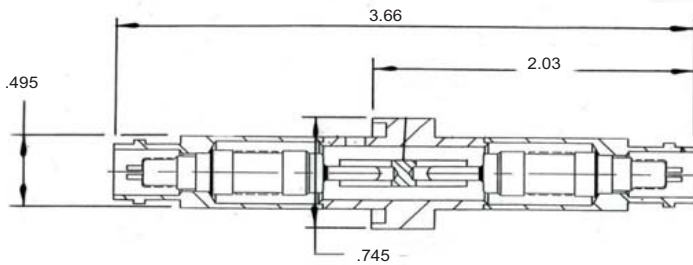
Electrical Rating	Thermal Rating	Conductor	Impedance	Pages
Voltage: 500 Volts DC Current: 3 Amps	Feedthrough: -200 to 450°C Air-side Connector: -65 to 165°C	304 Stainless Steel	Non-constant	124-135
Voltage: 2500 Volts DC Current: 3 Amps	Feedthrough: -200 to 450°C Air-side Connector: -65 to 165°C	304 Stainless Steel	Non-constant	
Voltage: 5000 Volts DC Current: 3 Amps	Feedthrough: -200 to 450°C Air-side Connector: -65 to 165°C	304 Stainless Steel	Non-constant	136-146
Voltage: 2500 Volts DC Current: 3 Amps	Feedthrough: -200 to 450°C Air-side Connector: -65 to 165°C	304 Stainless Steel	Non-constant	
Voltage: 5000 Volts DC Current: 5 Amps	Feedthrough: -200 to 450°C Air-side Connector: -65 to 165°C	Nickel	Non-constant	147-163
Voltage: 2500 Volts DC Current: 5 Amps	Feedthrough: -200 to 450°C Air-side Connector: -65 to 165°C	Nickel	Non-constant	
Voltage: 10,000 Volts DC Current: 5 Amps	Feedthrough: -200 to 450°C Air-side Connector: -65 to 165°C	Nickel	Non-constant	
Voltage: 20,000 Volts DC Current: 15 Amps	Feedthrough: -200 to 450°C Air-side Connector: -65 to 165°C	Nickel	Non-constant	
Voltage: 7500 Volts DC Current: 3 Amps	Feedthrough: -200 to 450°C Air-side Connector: -200 to 300°C	304 Stainless Steel	Non-constant	
Voltage: 500 Volts DC Current: 3 Amps	Feedthrough: -200 to 450°C Air-side Connector: -65 to 165°C	304 Stainless Steel	Non-constant	164-166
Voltage: 500 Volts DC Current: 3 Amps	Feedthrough: -200 to 450°C Air-side Connector: -65 to 165°C	304 Stainless Steel	50 Ohms	
Voltage: 700 Volts DC Current: 1 Amp	Feedthrough: -200 to 450°C Air-side Connector: -65 to 165°C	304 Stainless Steel	Non-constant	167-171
Voltage: 2500 Volts DC Current: 1 Amp	Feedthrough: -200 to 450°C Air-side Connector: -65 to 165°C	304 Stainless Steel	Non-constant	
Voltage: 700 Volts DC Current: 1 Amp	Feedthrough: -200 to 450°C Air-side Connector: -65 to 165°C	304 Stainless Steel	50 Ohms	
Voltage: 500 Volts DC Current: 2 Amps	Feedthrough: -200 to 450°C Air-side Connector: -65 to 165°C	Molybdenum	Non-constant	172
Voltage: 500 Volts DC Current: 2 Amps	Feedthrough: -200 to 450°C Air-side Connector: -65 to 165°C	304 Stainless Steel	Non-constant	173-177
Voltage: 500 Volts DC Current: 1 Amp	Feedthrough: -200 to 450°C Air-side Connector: -65 to 165°C	304 Stainless Steel	Non-constant	

BNC
500 Volts DC / 3 Amps
Air-side Connector Included
Grounded Shield – Single-ended
WELDABLE

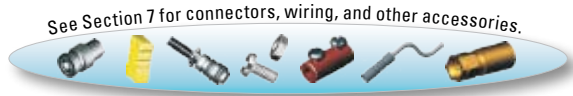


PART #
A0059-1-W
A0059-2-W (w/o connector)

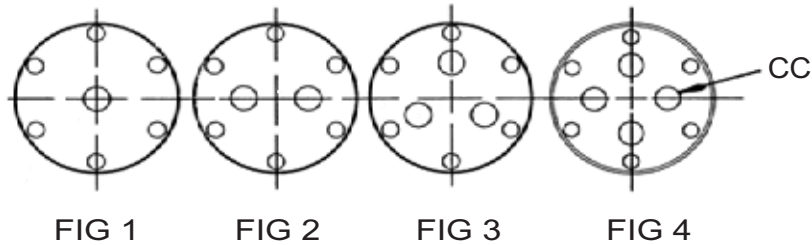
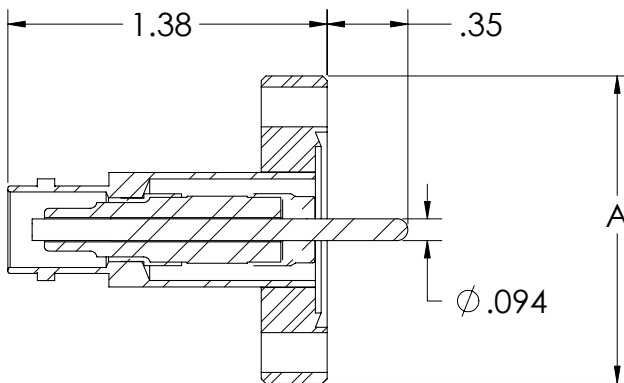
Grounded Shield – Double-ended
WELDABLE



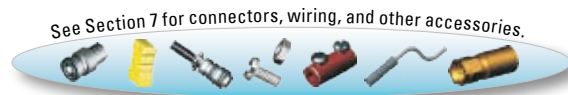
PART #
A0471-1-W



BNC
500 Volts DC / 3 Amps
Air-side Connector Included
Grounded Shield – Single-ended
CONFLAT FLANGE



PINS	FIG	CF FLANGE	A	CC	PART #
1	1	CF16	1.33	---	A0237-1-CF
1	1	CF40	2.75	---	A0289-1-CF
2	2	CF40	2.75	.75	A0291-1-CF
3	3	CF40	2.75	.95	A0293-1-CF
4	4	CF40	2.75	.95	A0295-1-CF



BNC
500 Volts DC / 3 Amps
Air-side Connector Included
Grounded Shield – Double-ended
CONFLAT FLANGE

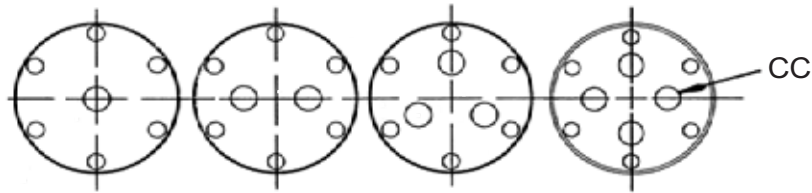
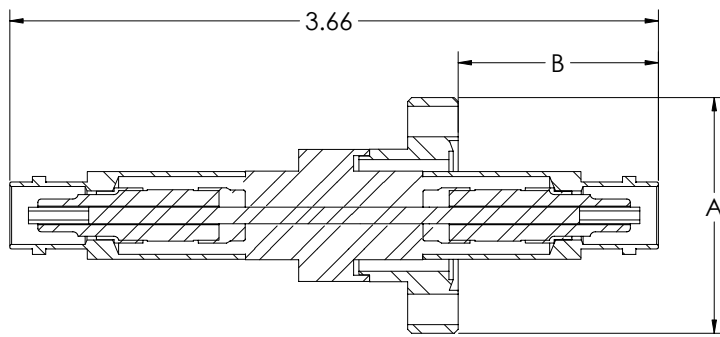


FIG 1 FIG 2 FIG 3 FIG 4

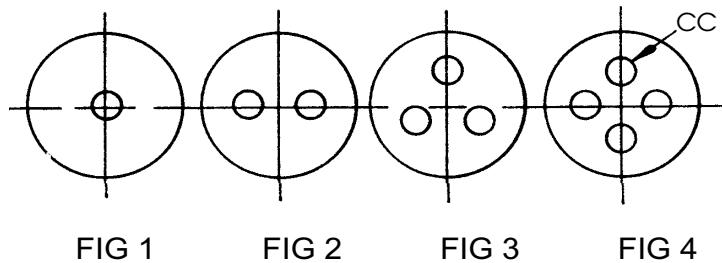
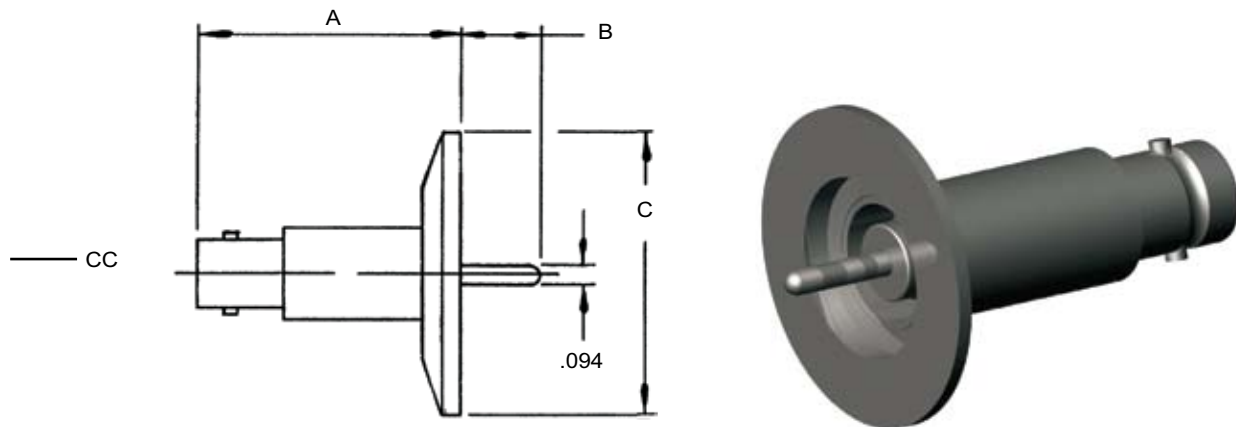
PINS	FIG	CF FLANGE	A	B	CC	PART #
1	1	CF16	1.33	1.14	---	A0472-1-CF
1	1	CF40	2.75	1.58	---	A0473-1-CF
2	2	CF40	2.75	1.58	.75	A0473-3-CF
3	3	CF50	3.38	1.58	.95	A0473-5-CF
4	4	CF63	4.50	1.58	.95	A7231-1-CF

See Section 7 for connectors, wiring, and other accessories.

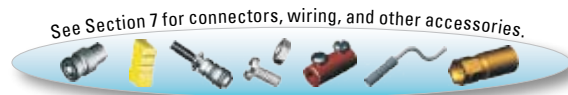


BNC
500 Volts DC / 3 Amps
Air-side Connector Included

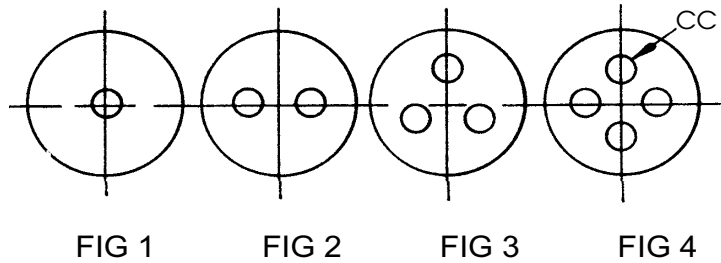
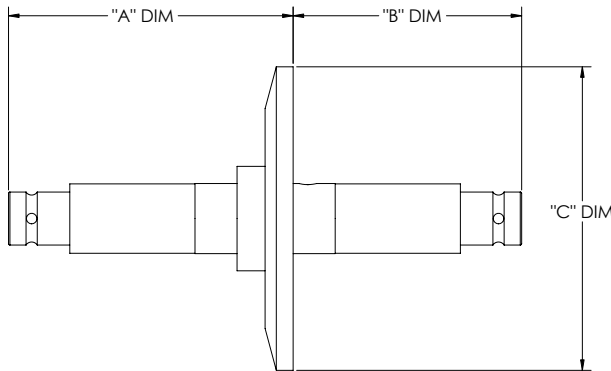
Grounded Shield – Single-ended
QUICK FLANGE



PINS	FIG	A	B	C	CC	PART #
1	1	1.43	.30	1.18	---	A0476-1-QF
1	1	1.33	.40	2.16	---	A0476-2-QF
2	2	1.33	.40	2.16	.75	A0476-3-QF
3	3	1.33	.40	2.95	.95	A0476-4-QF
4	4	1.33	.40	2.16	.75	A6984-1-QF
4	4	1.33	.40	2.95	.95	A0476-5-QF



BNC
500 Volts DC / 3 Amps
Air-side Connector Included
Grounded Shield – Double-ended
QUICK FLANGE

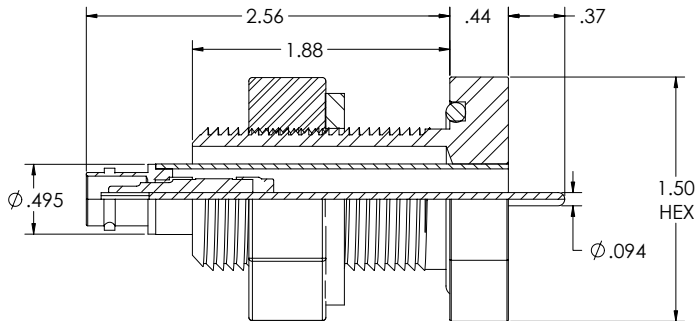


PINS	FIG	A	B	C	CC	PART #
1	1	1.13	2.53	1.18	---	A0479-1-QF
1	1	2.03	1.63	2.16	---	A0478-3-QF
2	2	2.03	1.63	2.95	.75	A0478-5-QF
3	3	2.03	1.63	2.95	.95	A0478-7-QF
4	4	2.03	1.63	2.95	.95	A7111-1-QF



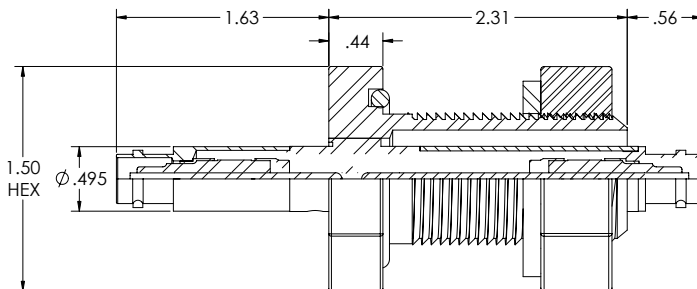
BNC
500 Volts DC / 3 Amps
Air-side Connector Included

Grounded Shield
1" BASEPLATE



PART #
 A0482-2-BP

Grounded Shield – Double-ended
1" BASEPLATE



PART #
 A0484-1-BP

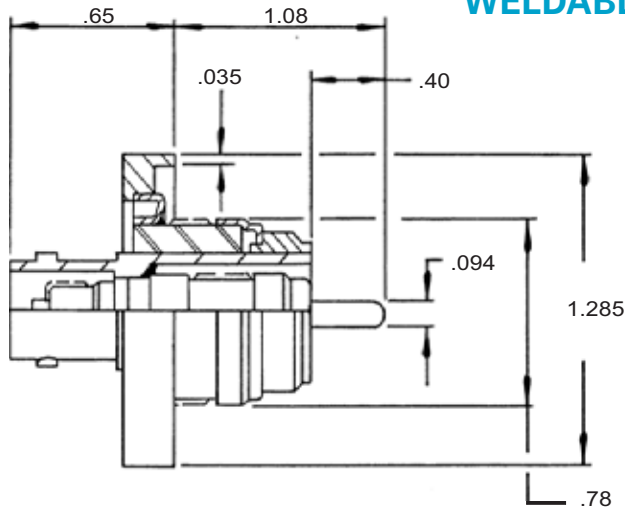
See Section 7 for connectors, wiring, and other accessories.



BNC

500 Volts DC / 3 Amps
Air-side Connector Included

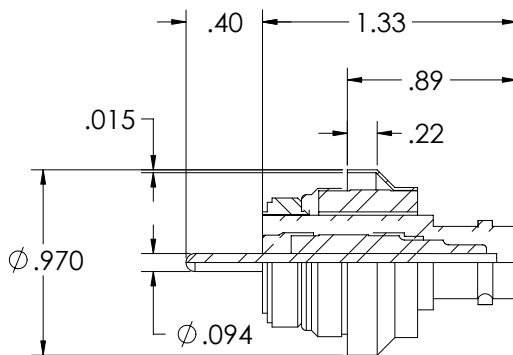
Floating Shield WELDABLE



PART #

A0302-1-W

Floating Shield WELDABLE



PART #

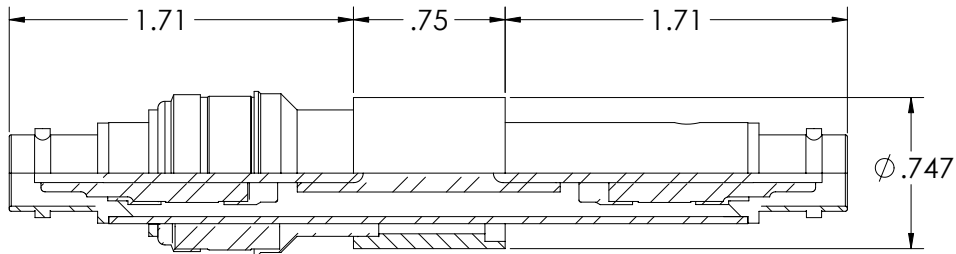
A1301-1-W

See Section 7 for connectors, wiring, and other accessories.



BNC
500 Volts DC / 3 Amps
Air-side Connector Included

Floating Shield – Double-ended
WELDABLE



PART #

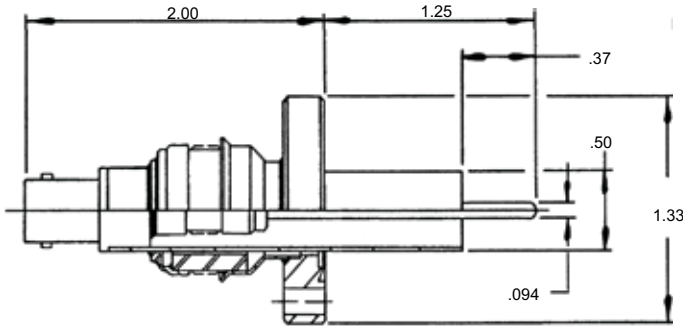
A0466-1-W

See Section 7 for connectors, wiring, and other accessories.

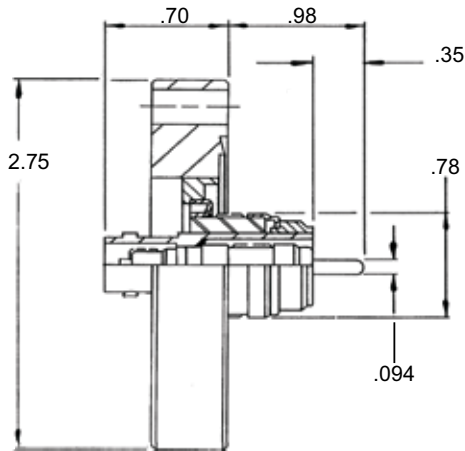


BNC
500 Volts DC / 3 Amps
Air-side Connector Included

Floating Shield – Single-ended
CONFLAT FLANGE



PART #
 A0310-1-CF



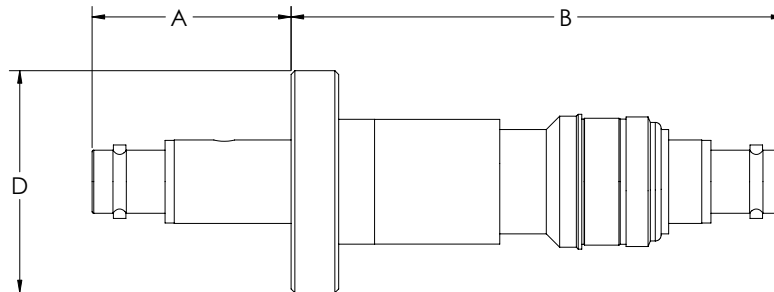
PART #
 A0304-1-CF

See Section 7 for connectors, wiring, and other accessories.



BNC
500 Volts DC / 3 Amps
Air-side Connector Included

Floating Shield – Double-ended
CONFLAT FLANGE



PINS	CF FLANGE	A	B	D	PART #
1	CF16	1.21	2.96	1.33	A0474-1-CF
1	CF40	1.66	2.51	2.75	A0475-1-CF

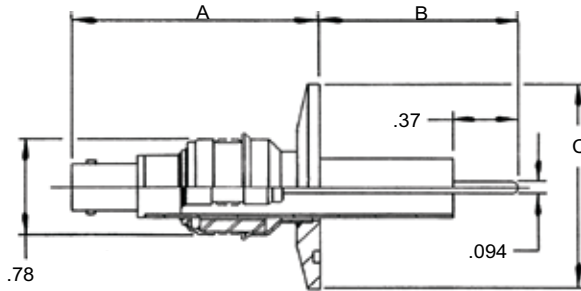
See Section 7 for connectors, wiring, and other accessories.



BNC

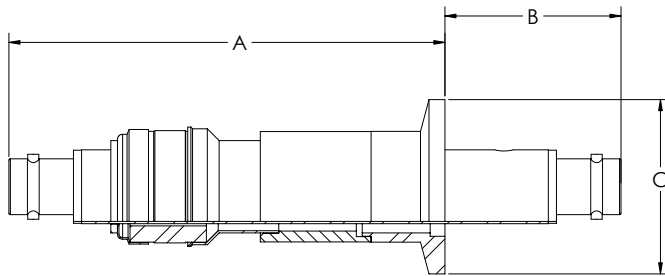
500 Volts DC / 3 Amps
Air-side Connector Included

Floating Shield – Single-ended QUICK FLANGE



PINS	A	B	C	PART #
1	2.59	0.67	1.18	A0315-1-QF
1	2.09	1.17	2.16	A0315-3-QF

Floating Shield – Double-ended QUICK FLANGE



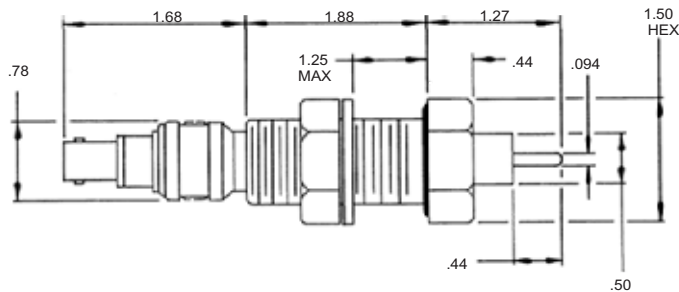
PINS	A	B	C	PART #
1	2.96	1.21	1.18	A0480-1-QF
1	2.46	1.71	2.16	A0481-1-QF

See Section 7 for connectors, wiring, and other accessories.



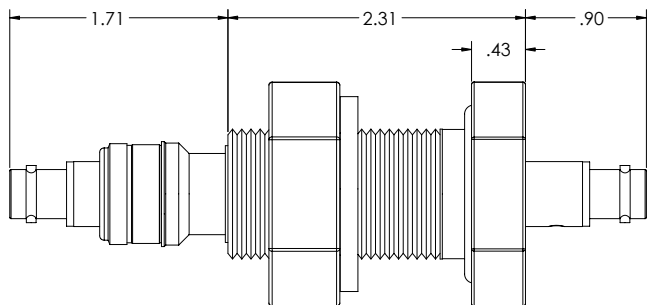
BNC
500 Volts DC / 3 Amps
Air-side Connector Included

Floating Shield
1" BASEPLATE

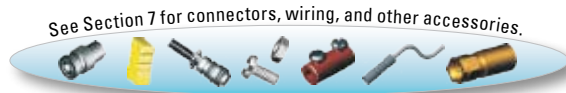


PART #
 A0485-1-BP

Floating Shield – Double-ended
1" BASEPLATE

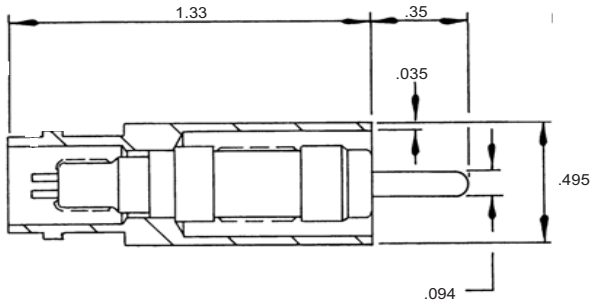


PART #
 A0487-1-BP



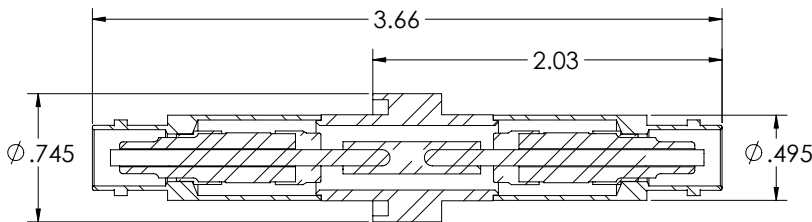
MHV
5000 Volts DC / 3 Amps
Air-side Connector Included

Grounded Shield
WELDABLE



PART #
A0058-1-W
A0058-2-W (w/o connector)

Grounded Shield – Double-ended
WELDABLE



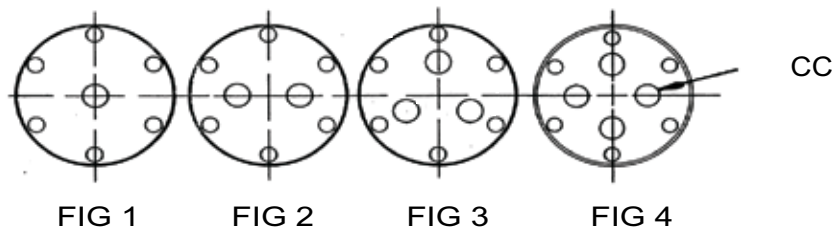
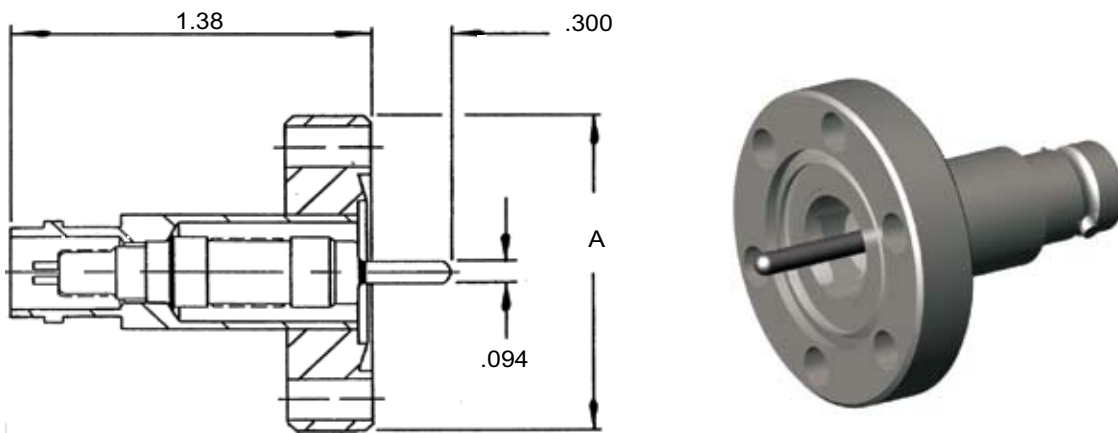
PART #
A0471-2-W

See Section 7 for connectors, wiring, and other accessories.

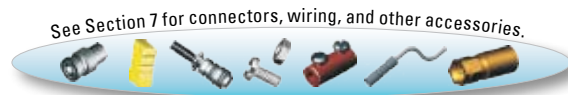


MHV
5000 Volts DC / 3 Amps
Air-side Connector Included

Grounded Shield – Single-ended
CONFLAT FLANGE

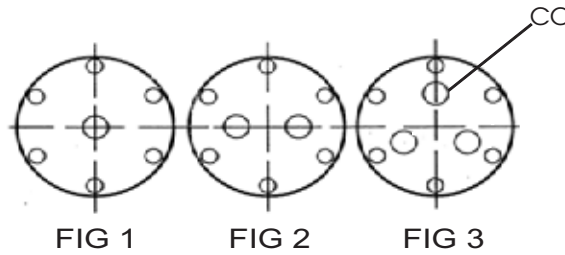
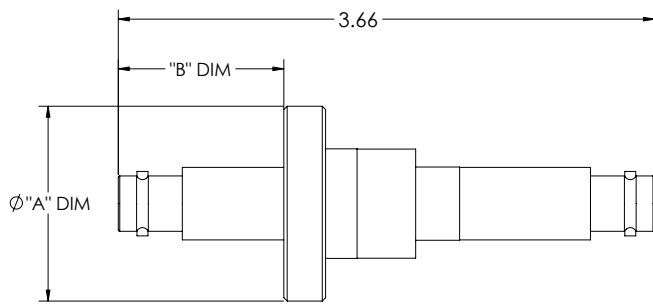


PINS	CF FLANGE	A	CC	PART #
1	CF16	1.33	---	A0238-1-CF
1	CF40	2.75	---	A0290-1-CF
2	CF40	2.75	.75	A0292-1-CF
3	CF40	2.75	.95	A0294-1-CF
4	CF40	2.75	.95	A0296-1-CF

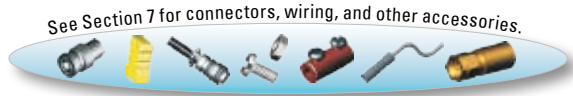


MHV
5000 Volts DC / 3 Amps
Air-side Connector Included

Grounded Shield – Double-ended
CONFLAT FLANGE

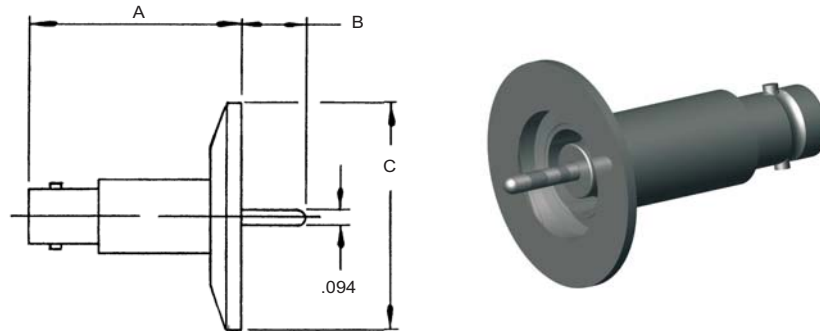


PINS	FIG	CF FLANGE	A	B	CC	PART #
1	1	CF16	1.33	1.13	---	A0472-2-CF
1	1	CF40	2.75	1.58	---	A0473-2-CF
2	2	CF40	2.75	1.58	.75	A0473-4-CF
3	3	CF50	3.38	1.58	.95	A0473-6-CF



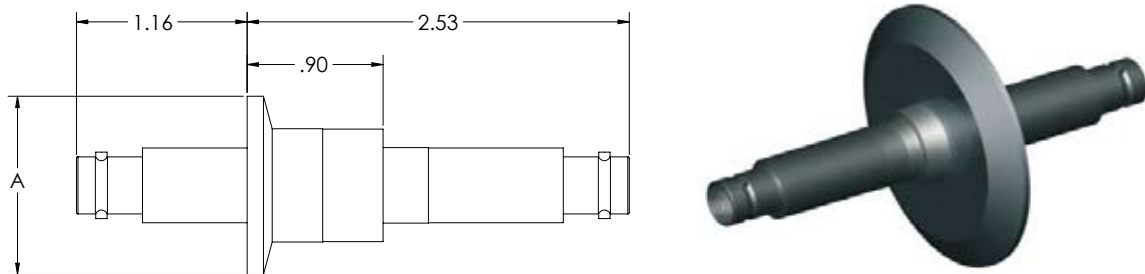
MHV
5000 Volts DC / 3 Amps
Air-side Connector Included

Grounded Shield – Single-ended
QUICK FLANGE



PINS	A	B	C	CC	PART #
1	1.43	.25	1.18	---	A0477-1-QF
1	1.33	.35	2.16	---	A0477-2-QF
2	1.33	.35	2.16	.75	A0477-3-QF
3	1.33	.35	2.95	.95	A0477-4-QF
4	1.33	.35	2.16	.75	A6984-2-QF
4	1.33	.35	2.95	.95	A0477-5-QF

Grounded Shield – Double-ended
QUICK FLANGE



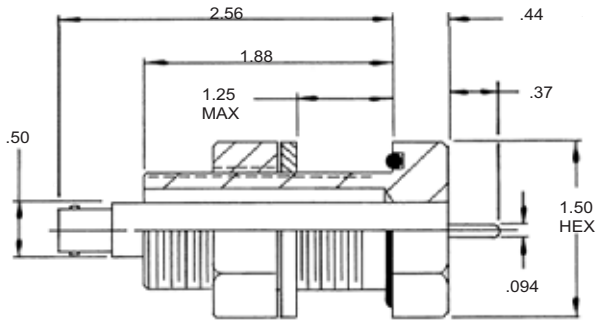
PINS	A	CC	PART #
1	1.18	---	A0479-2-QF
1	2.16	---	A0478-4-QF
2	2.16	.75	A0478-10-QF
3	2.95	.95	A0478-8-QF

See Section 7 for connectors, wiring, and other accessories.



MHV 5000 Volts DC / 3 Amps *Air-side Connector Included*

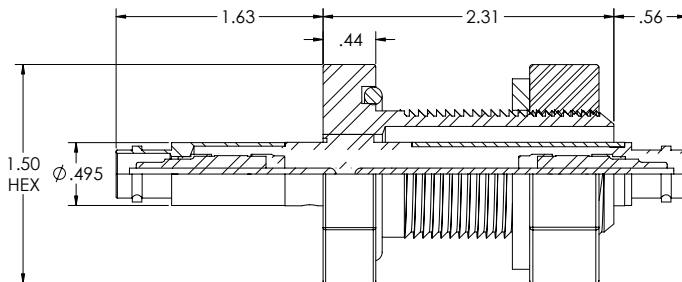
Grounded Shield – Single-ended 1" BASEPLATE



PART #

A0482-1-BP

Grounded Shield – Double-ended 1" BASEPLATE



PART #

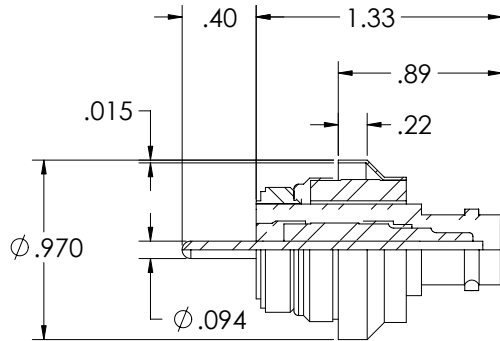
A0484-2-BP

See Section 7 for connectors, wiring, and other accessories.



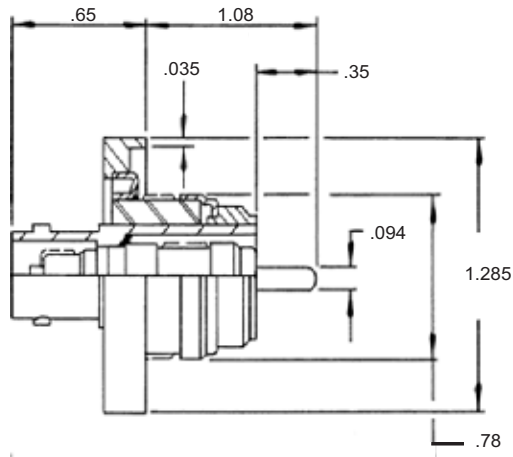
MHV
5000 Volts DC / 3 Amps
Air-side Connector Included

Floating Shield – Single-ended
WELDABLE



PART #

A1301-3-W



PART #

A0303-1-W

See Section 7 for connectors, wiring, and other accessories.

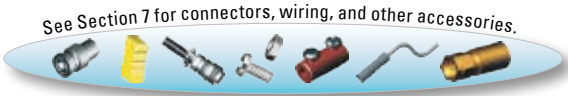


MHV
5000 Volts DC / 3 Amps
Air-side Connector Included

Floating Shield – Double-ended
WELDABLE

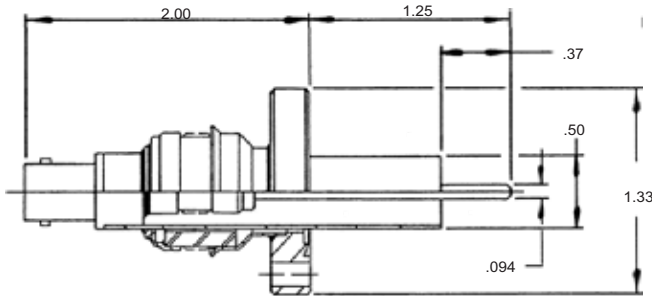


PART #
A0466-2-W

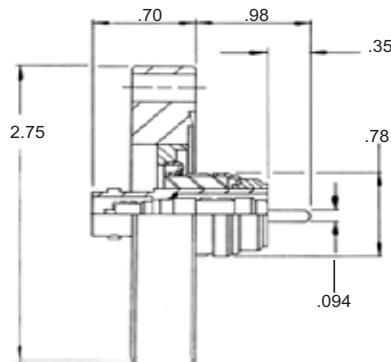


MHV
5000 Volts DC / 3 Amps
Air-side Connector Included

Floating Shield – Single-ended
CONFLAT FLANGE



PART #
A0311-1-CF



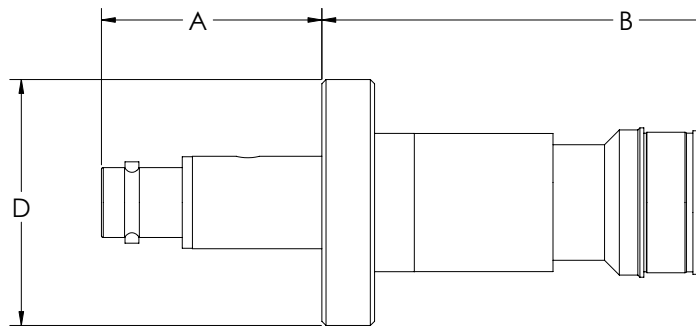
PART #
A0305-1-CF

See Section 7 for connectors, wiring, and other accessories.



MHV 5000 Volts DC / 3 Amps *Air-side Connector Included*

Floating Shield – Double-ended CONFLAT FLANGE



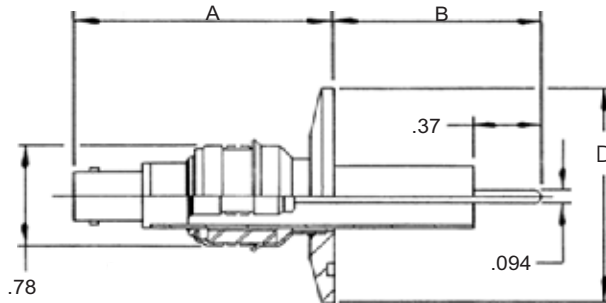
PINS	CF FLANGE	A	B	D	PART #
1	CF16	1.21	2.96	1.33	A0474-2-CF
1	CF40	1.66	2.51	2.75	A0475-2-CF

See Section 7 for connectors, wiring, and other accessories.



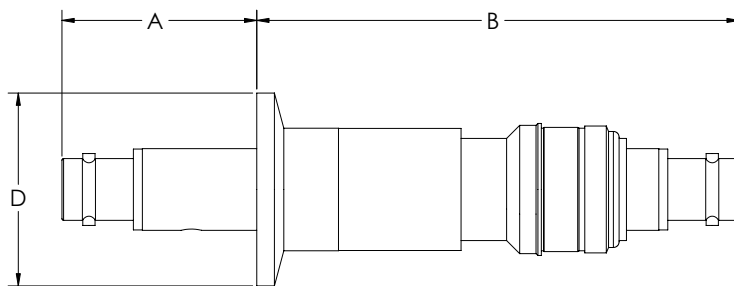
MHV
5000 Volts DC / 3 Amps
Air-side Connector Included

Floating Shield – Single-ended
QUICK FLANGE



PINS	A	B	D	PART #
1	2.59	.67	1.18	A0316-1-QF
1	2.09	1.17	2.16	A0316-3-QF

Floating Shield – Double-ended
QUICK FLANGE



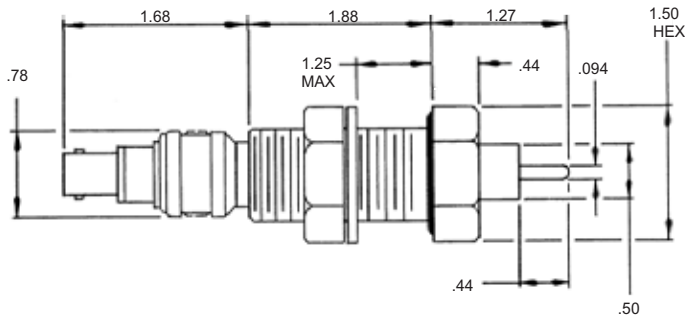
PINS	A	B	D	PART #
1	1.21	2.96	1.18	A0480-2-QF
1	1.71	2.46	2.16	A0481-2-QF

See Section 7 for connectors, wiring, and other accessories.



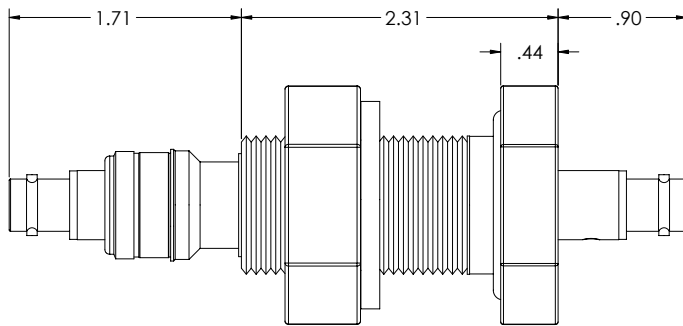
MHV
5000 Volts DC / 3 Amps
Air-side Connector Included

Floating Shield – Single-ended
1" BASEPLATE



PART #
 A0485-2-BP

Floating Shield – Double-ended
1" BASEPLATE



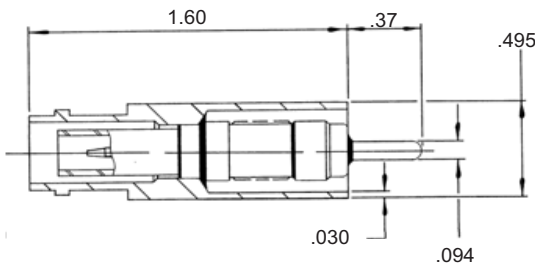
PART #
 A0487-2-BP

See Section 7 for connectors, wiring, and other accessories.



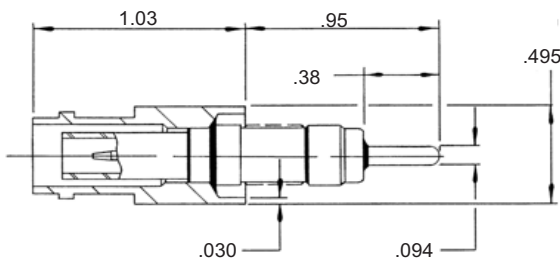
SHV-5
5000 Volts DC / 5 Amps
Air-side Connector Included

Grounded Shield – Recessed
WELDABLE



PART #
 A0152-1-W

Grounded Shield – Exposed
WELDABLE



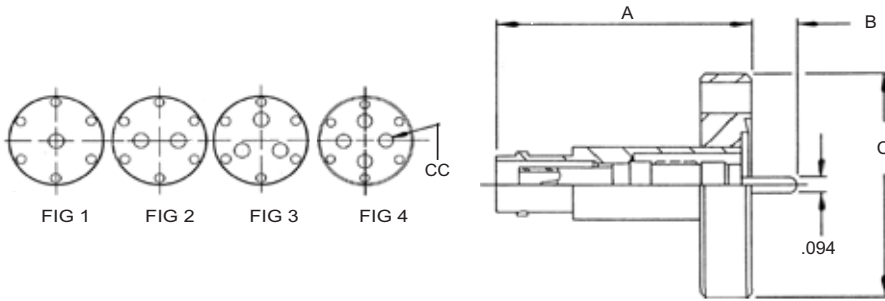
PART #
 A0328-1-W

See Section 7 for connectors, wiring, and other accessories.



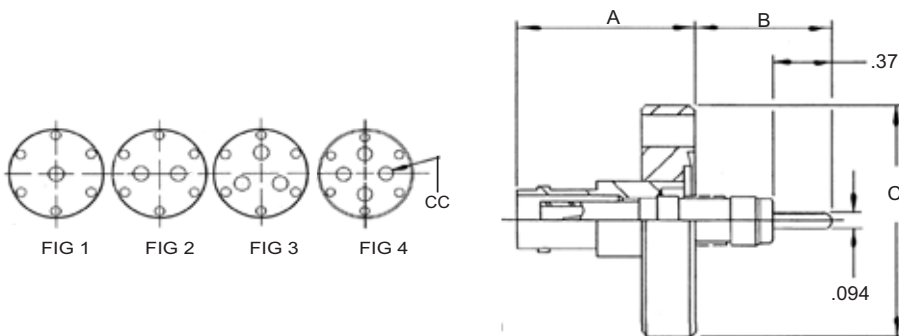
SHV-5 5000 Volts DC / 5 Amps *Air-side Connector Included*

Grounded Shield – Recessed CONFLAT FLANGE



PINS	FIG	A	B	C	CC	PART #
1	1	1.65	.32	1.33	---	A0330-1-CF
1	1	1.65	.32	2.75	---	A0331-1-CF
2	2	1.65	.32	2.75	.75	A0332-1-CF
3	3	1.65	.32	2.75	.95	A0333-1-CF
4	4	1.65	.32	2.75	.95	A0334-1-CF

Grounded Shield – Exposed CONFLAT FLANGE



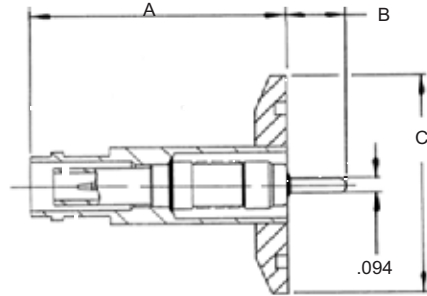
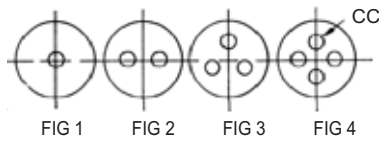
PINS	FIG	A	B	C	CC	PART #
1	1	1.08	.86	1.33	---	A0335-1-CF
1	1	1.08	.86	2.75	---	A0336-1-CF
2	2	1.08	.86	2.75	.75	A0337-1-CF
3	3	1.08	.86	2.75	.95	A0338-1-CF
4	4	1.08	.86	2.75	.95	A0339-1-CF

See Section 7 for connectors, wiring, and other accessories.



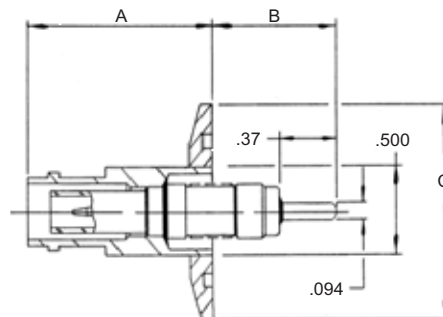
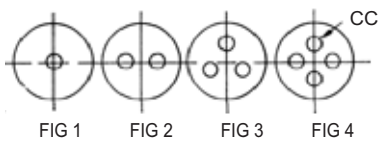
SHV-5
5000 Volts DC / 5 Amps
Air-side Connector Included

Grounded Shield – Recessed
QUICK FLANGE



PINS	FIG	A	B	C	CC	PART #
1	1	1.70	.27	1.18	---	A0340-1-QF
1	1	1.60	.37	2.16	---	A0341-1-QF
2	2	1.60	.37	2.16	.75	A0342-1-QF
3	3	1.60	.37	2.95	.95	A0343-1-QF
4	4	1.60	.37	2.16	.75	A6984-3-QF
4	4	1.60	.37	2.95	.95	A0344-1-QF

Grounded Shield – Exposed
QUICK FLANGE



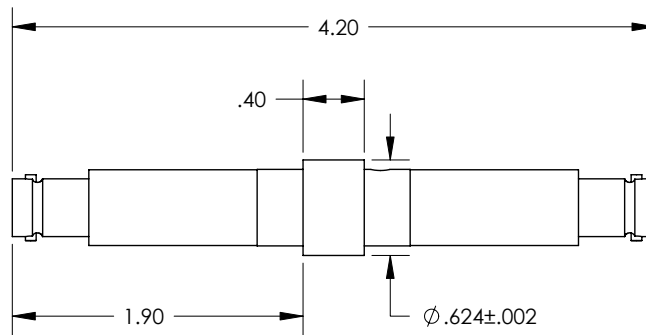
PINS	FIG	A	B	C	CC	PART #
1	1	1.13	.81	1.18	---	A0345-1-QF
1	1	1.03	.91	2.16	---	A0346-1-QF
2	2	1.03	.91	2.16	.75	A0347-1-QF
3	3	1.03	.91	2.95	.95	A0348-1-QF
4	4	1.03	.91	2.95	.95	A0349-1-QF

See Section 7 for connectors, wiring, and other accessories.



SHV-5 5000 Volts DC / 5 Amps *Air-side Connector Included*

Grounded Shield – Double-ended
WELDABLE



PART #

A0858-1-W

See Section 7 for connectors, wiring, and other accessories.



SHV-5
5000 Volts DC / 5 Amps
Air-side Connector Included

Grounded Shield – Double-ended
CONFLAT FLANGE

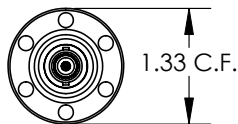
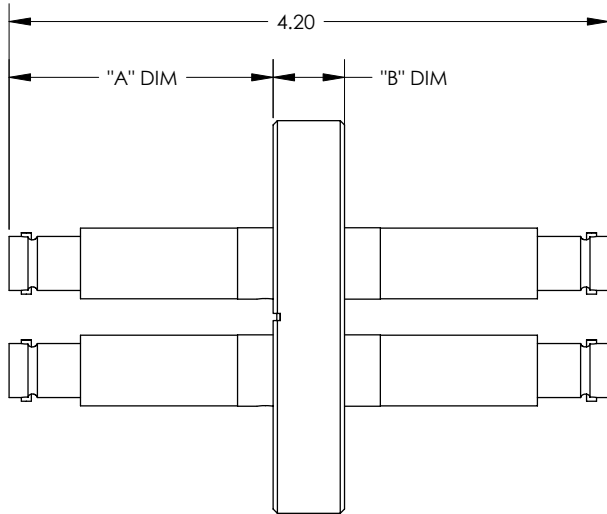


Fig. 1

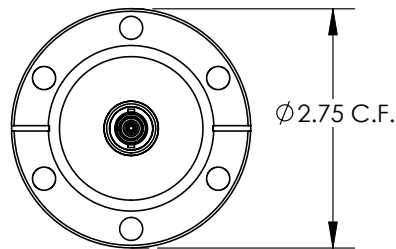


Fig. 2

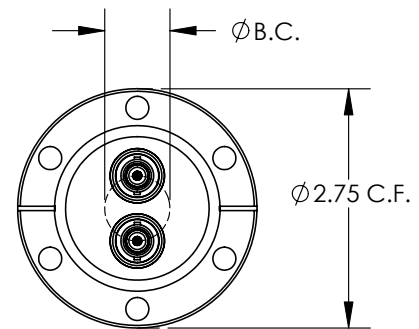


Fig. 3

FIG	PINS	Ø B.C.	"A" DIM	"B" DIM	PART #
1	1	---	1.40	.285	A0472-5-CF
2	1	---	1.85	.500	A0473-7-CF
3	2	.75	1.85	.500	A0473-8-CF

See Section 7 for connectors, wiring, and other accessories.



SHV-5 5000 Volts DC / 5 Amps *Air-side Connector Included*

Grounded Shield – Double-ended QUICK FLANGE

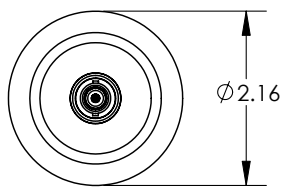
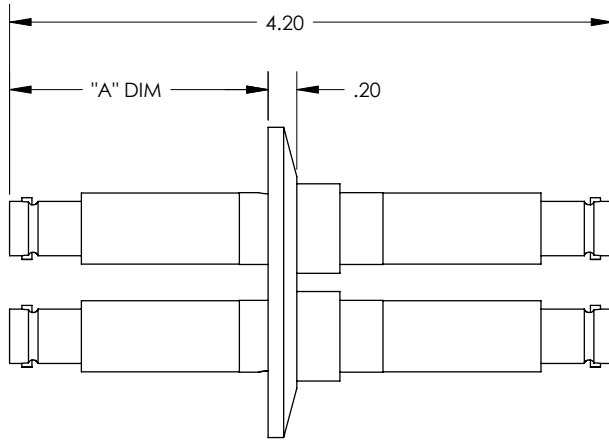


Fig. 1

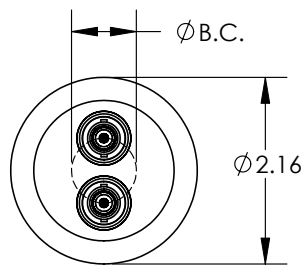


Fig. 2

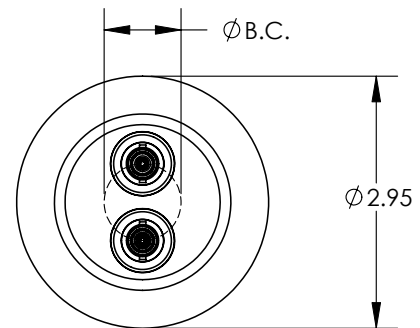


Fig. 3

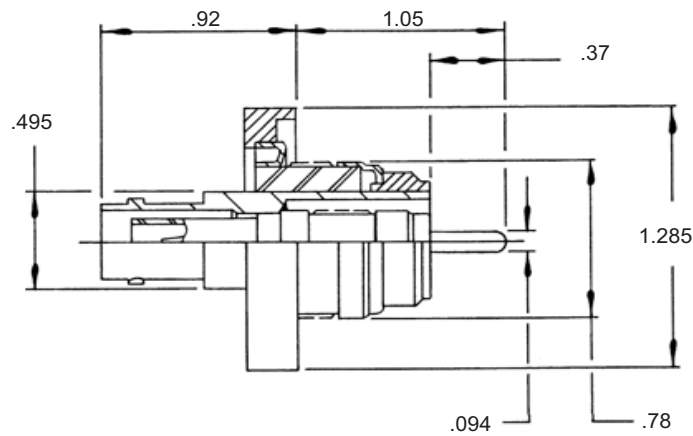
FIG	PINS	ϕ B.C.	"A" DIM	PART #
1	1	---	1.80	A8271-1-QF
2	2	.75	1.80	A0859-1-QF
3	2	.90	1.90	A6974-1-QF

See Section 7 for connectors, wiring, and other accessories.



SHV-5
5000 Volts DC / 5 Amps
Air-side Connector Included

Floating Shield – Single-ended
WELDABLE



PART #

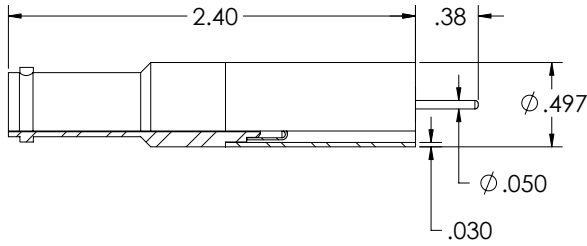
A0329-1-W

See Section 7 for connectors, wiring, and other accessories.



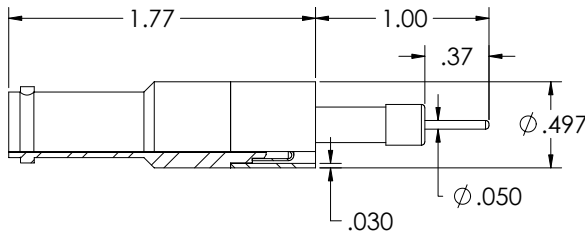
SHV-10
10,000 Volts DC / 5 Amps
Air-side Connector Included

Grounded Shield – Recessed
WELDABLE



TYPE	PART #
RECESSED	A1499-1-W

Grounded Shield – Exposed
WELDABLE



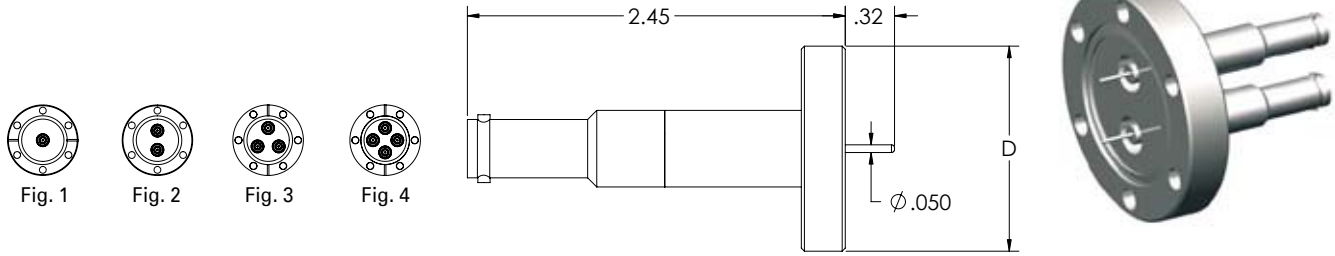
TYPE	PART #
EXPOSED	A1497-1-W

See Section 7 for connectors, wiring, and other accessories.



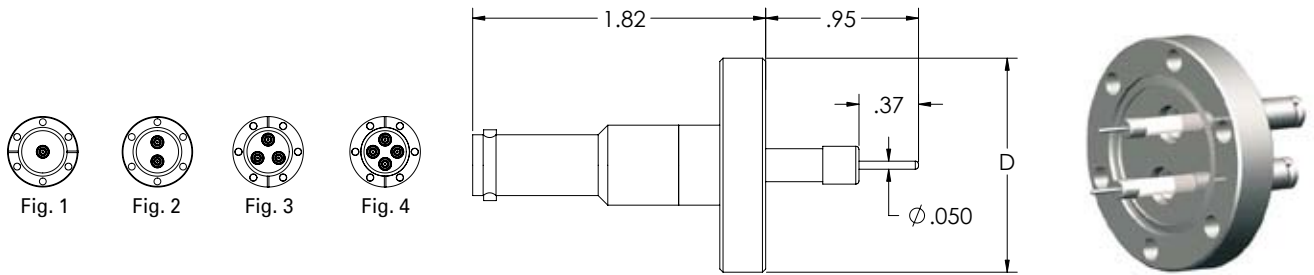
SHV-10
10,000 Volts DC / 5 Amps
Air-side Connector Included

Grounded Shield – Recessed
CONFLAT FLANGE



PINS	FIG	D	CC	PART #
1	1	1.33 / CF16	---	A1600-1-CF
1	1	2.75 / CF40	---	A1600-2-CF
2	2	2.75 / CF40	.75	A1600-3-CF
3	3	2.75 / CF40	.75	A1600-4-CF
4	4	2.75 / CF40	.95	A1600-5-CF

Grounded Shield – Exposed
CONFLAT FLANGE

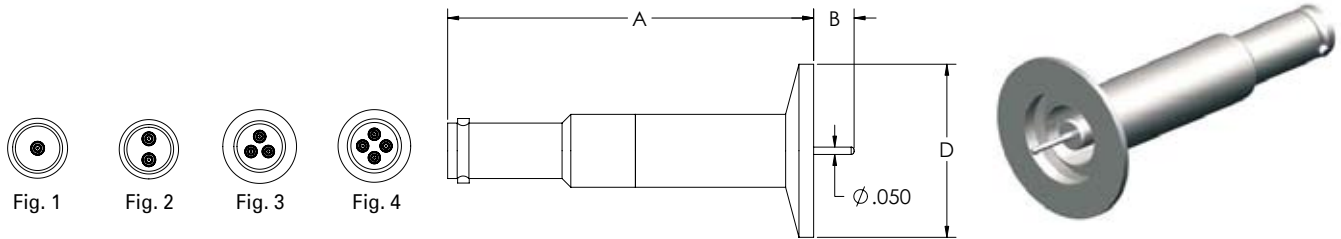


PINS	FIG	D	CC	PART #
1	1	1.33 / CF16	---	A1601-1-CF
1	1	2.75 / CF40	---	A1601-2-CF
2	2	2.75 / CF40	.75	A1601-3-CF
3	3	2.75 / CF40	.75	A1601-4-CF
4	4	2.75 / CF40	.95	A1601-5-CF



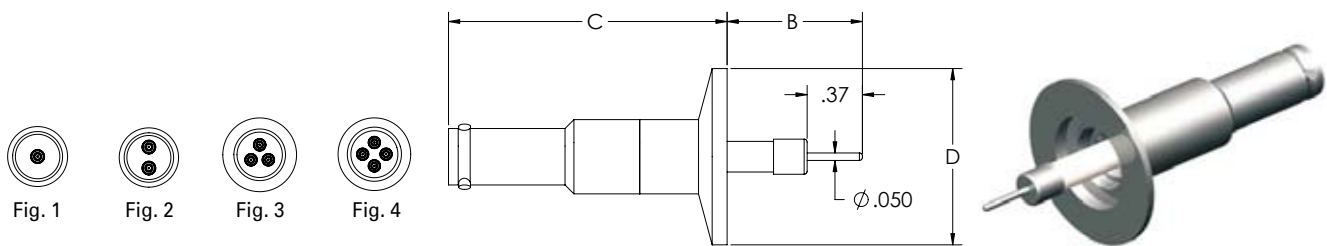
SHV-10 10,000 Volts DC / 5 Amps *Air-side Connector Included*

Grounded Shield – Recessed QUICK FLANGE



PINS	FIG	A	B	D	CC	PART #
1	1	2.49	.28	1.18 / QF16	---	A1602-1-QF
1	1	2.39	.28	2.16 / QF40	---	A1602-2-QF
2	2	2.39	.28	2.16 / QF40	.75	A1602-3-QF
3	3	2.39	.28	2.95 / QF50	.75	A1602-4-QF
4	4	2.39	.28	2.95 / QF50	.95	A1602-5-QF

Grounded Shield – Exposed QUICK FLANGE



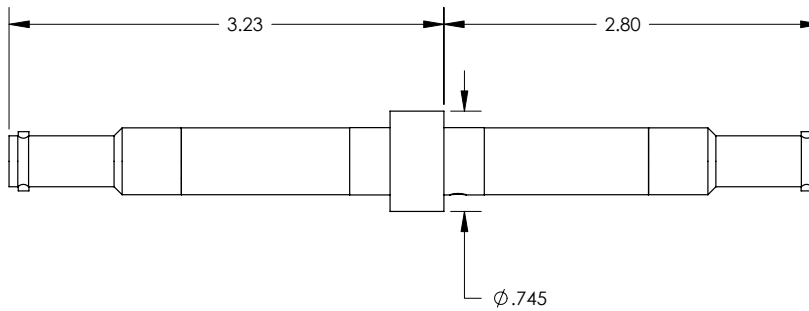
PINS	FIG	B	C	D	CC	PART #
1	1	1.87	.90	1.18 / QF16	---	A1603-1-QF
1	1	1.77	1.00	2.16 / QF40	---	A1603-2-QF
2	2	1.77	1.00	2.16 / QF40	.75	A1603-3-QF
3	3	1.77	1.00	2.95 / QF50	.75	A1603-4-QF
4	4	1.77	1.00	2.95 / QF50	.95	A1603-5-QF

See Section 7 for connectors, wiring, and other accessories.



SHV-10
10,000 Volts DC / 5 Amps
Air-side Connector Included

Grounded Shield – Double-ended
WELDABLE



PART #

A2613-3-W

See Section 7 for connectors, wiring, and other accessories.



SHV-10
10,000 Volts DC / 5 Amps
Air-side Connector Included

Grounded Shield – Double-ended
CONFLAT FLANGE

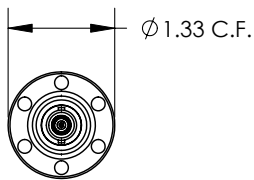
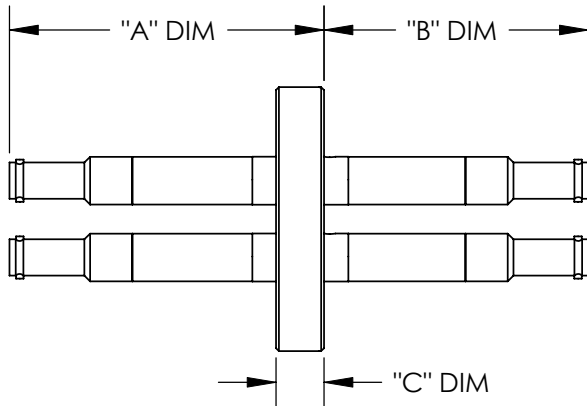


Fig. 1

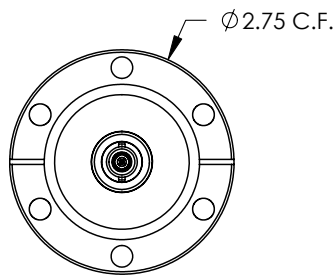


Fig. 2

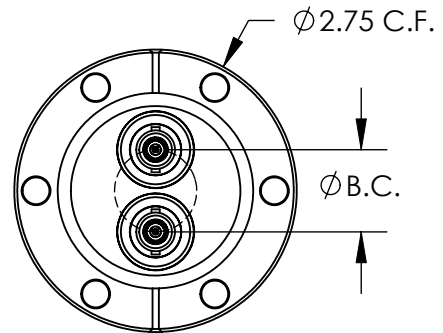


Fig. 3

FIG	PINS	Ø B.C.	"A" DIM	"B" DIM	"C" DIM	PART #
1	1	---	3.73	2.30	.285	A8272-1-CF
2	1	---	3.28	2.75	.500	A8272-2-CF
3	2	.80	3.28	2.75	.500	A8272-3-CF

See Section 7 for connectors, wiring, and other accessories.



SHV-10
10,000 Volts DC / 5 Amps
Air-side Connector Included

Grounded Shield – Double-ended
QUICK FLANGE

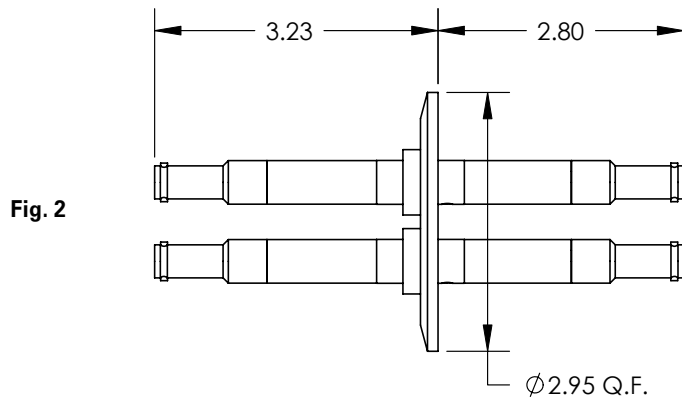
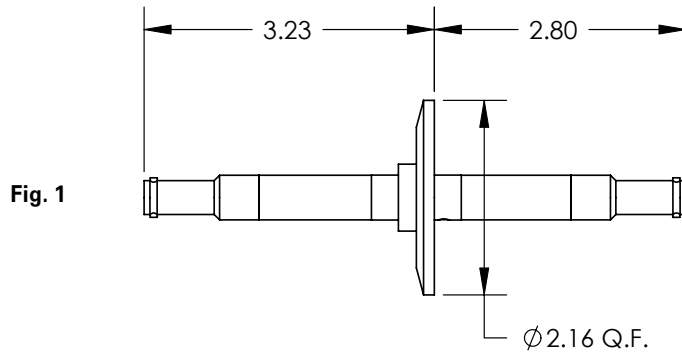


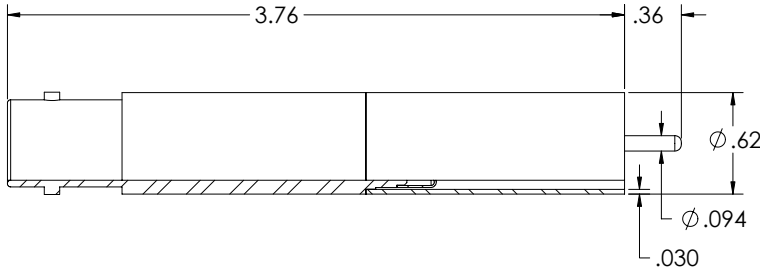
FIG	PINS	PART #
1	1	A8273-1-QF
2	2	A8273-2-QF

See Section 7 for connectors, wiring, and other accessories.



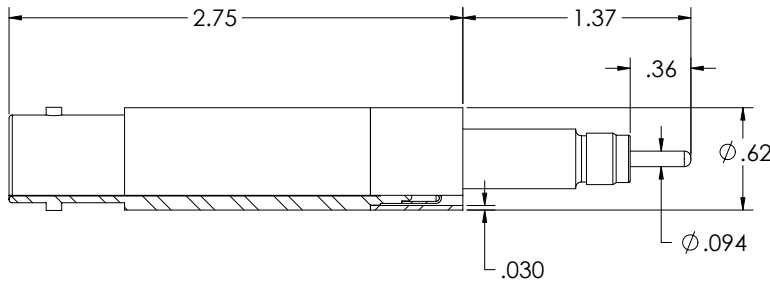
SHV-20
20,000 Volts DC / 15 Amps
Air-side Connector Included

Grounded Shield – Recessed
WELDABLE

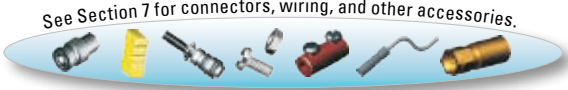


PART #
 A0701-1-W

Grounded Shield – Exposed
WELDABLE

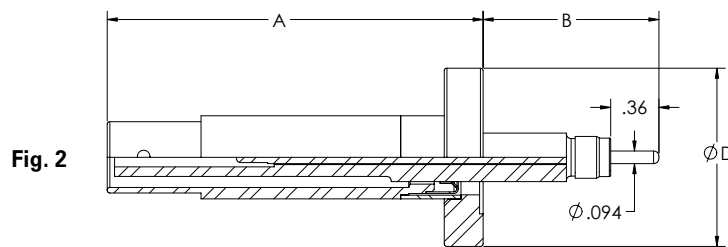
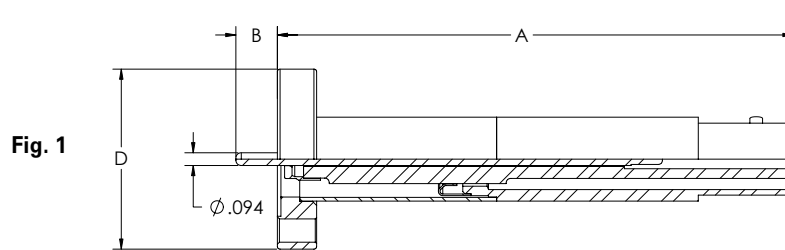


PART #
 A0702-1-W



SHV-20
20,000 Volts DC / 15 Amps
Air-side Connector Included

Grounded Shield – Recessed and Exposed
CONFLAT FLANGE



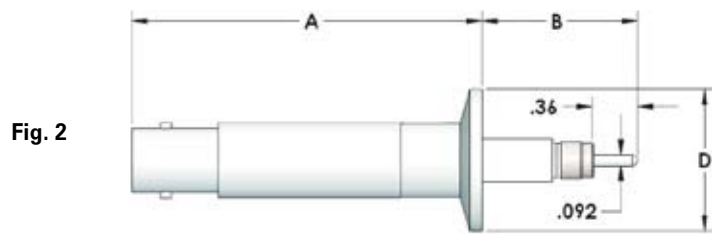
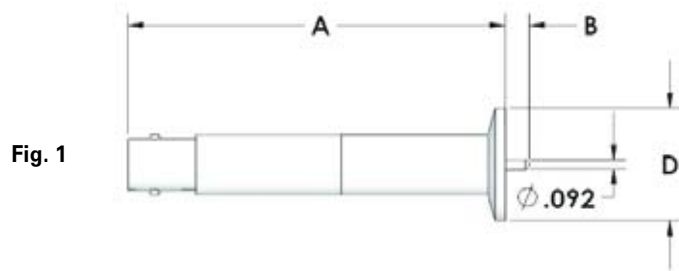
PINS	FIG	TYPE	A	B	D	CC	PART #
1	1	RECESSED	3.80	.32	1.33 / CF16	---	A0703-1-CF
1	1	RECESSED	3.80	.32	2.75 / CF40	---	A2095-1-CF
2	1	RECESSED	3.80	.32	2.75 / CF40	.95	A2300-1-CF
1	2	EXPOSED	2.80	1.32	1.33 / CF16	---	A0704-1-CF
1	2	EXPOSED	2.80	1.32	2.75 / CF40	---	A1909-1-CF
2	2	EXPOSED	2.80	1.32	2.75 / CF40	.95	A2099-1-CF

See Section 7 for connectors, wiring, and other accessories.



SHV-20 20,000 Volts DC / 15 Amps *Air-side Connector Included*

Grounded Shield – Recessed and Exposed **QUICK FLANGE**

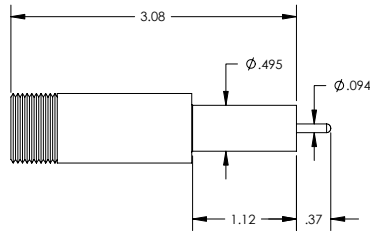


PINS	FIG	TYPE	A	B	D	CC	PART #
1	1	RECESSED	3.85	.27	1.18 / QF16	---	A2096-1-QF
1	1	RECESSED	3.80	.37	2.16 / QF40	---	A2096-2-QF
2	2	RECESSED	3.80	.37	2.95 / QF50	.95	A2302-1-QF
1	1	EXPOSED	2.85	1.27	1.18 / QF16	---	A2094-1-QF
1	1	EXPOSED	2.75	1.37	2.16 / QF40	---	A2094-2-QF
2	2	EXPOSED	2.75	1.37	2.95 / QF50	.95	A2301-1-QF

See Section 7 for connectors, wiring, and other accessories.

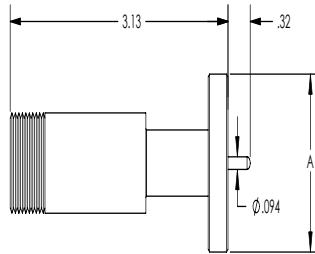


SHV-B
7500 Volts DC / 3 Amps
Bakeable Connector
Air-side Connector Included
WELDABLE



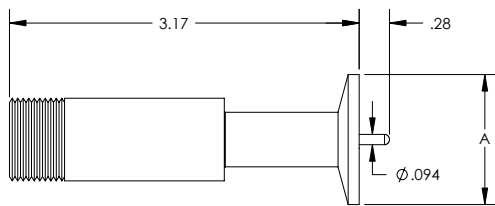
PART #
A0836-1-W

CONFLAT FLANGE



A	PART #
1.33	A1051-1-CF
2.75	A1051-2-CF

QUICK FLANGE



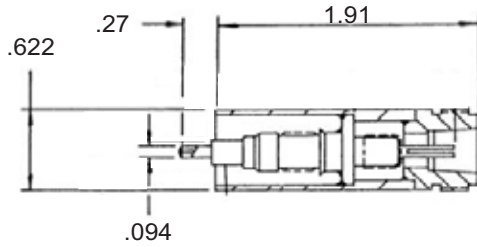
A	PART #
1.18	A2610-1-QF
2.16	A2611-2-QF

See Section 7 for connectors, wiring, and other accessories.

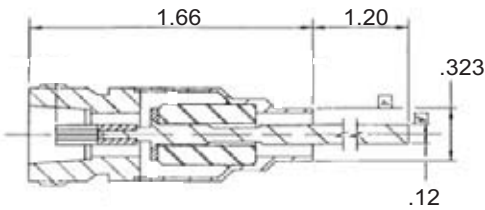


TYPE-N

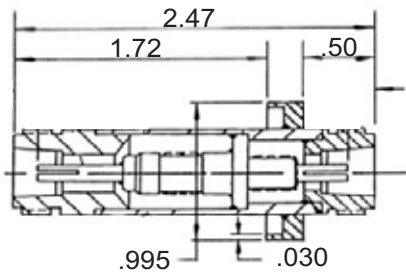
500 Volts DC / 3 Amps
Air-side Connector Included
WELDABLE



TYPE	PART #
SINGLE-ENDED	A0654-1-W



TYPE	PART #
SINGLE-ENDED / 50 Ohms	A0655-1-W

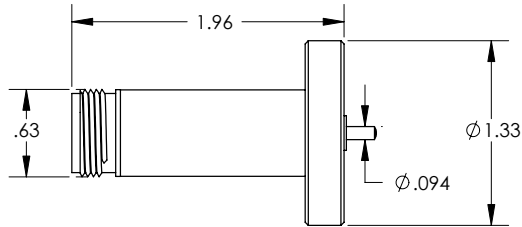


TYPE	PART #
DOUBLE-ENDED	A0659-1-W

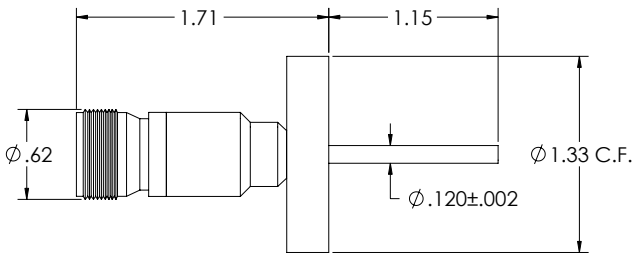
See Section 7 for connectors, wiring, and other accessories.



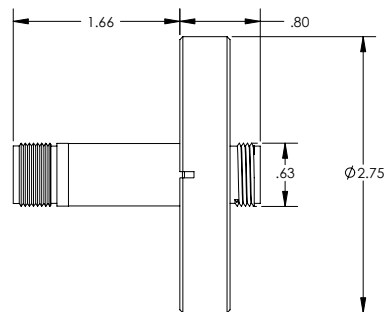
TYPE-N
500 Volts DC / 3 Amps
Air-side Connector Included
CONFLAT FLANGE



TYPE	PART #
SINGLE-ENDED	A1706-1-CF



TYPE	PART #
SINGLE-ENDED / 50 Ohms	A2714-1-CF



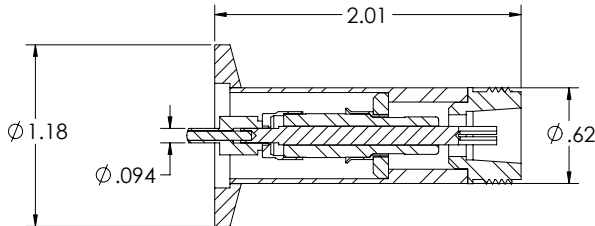
TYPE	PART #
DOUBLE-ENDED	A2262-1-CF

See Section 7 for connectors, wiring, and other accessories.

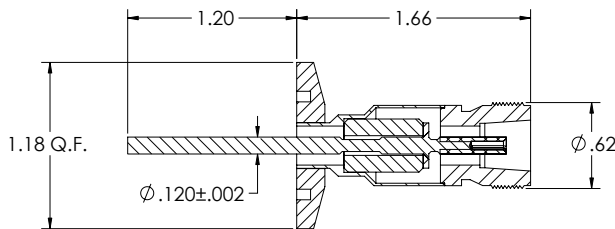


TYPE-N

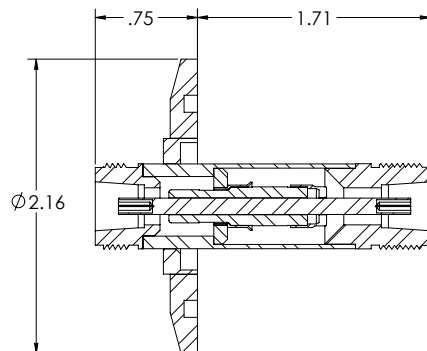
500 Volts DC / 3 Amps
Air-side Connector Included
QUICK FLANGE



TYPE	PART #
SINGLE-ENDED	A2247-1-QF



TYPE	PART #
SINGLE-ENDED / 50 Ohms	A3062-1-QF

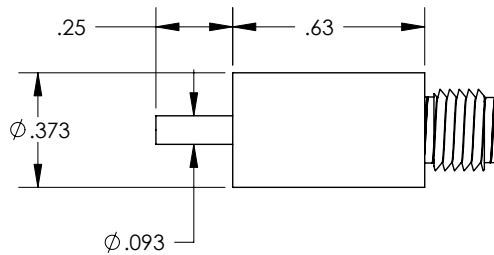


TYPE	PART #
DOUBLE-ENDED	A2604-1-QF

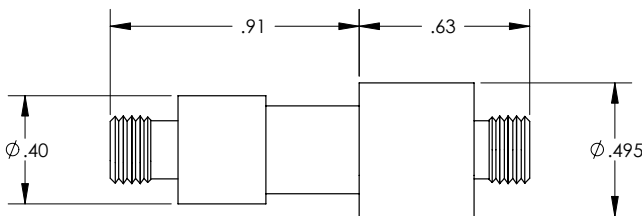
See Section 7 for connectors, wiring, and other accessories.



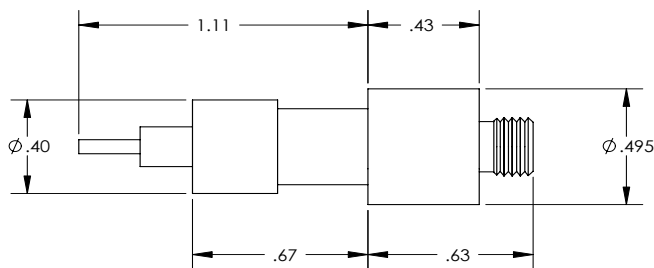
SMA
700 Volts DC / 1 Amp
Air-side Connector Included
WELDABLE



TYPE	PART #
SINGLE-ENDED	A0660-1-W



TYPE	PART #
DOUBLE-ENDED / 50 Ohms	A0645-1-W



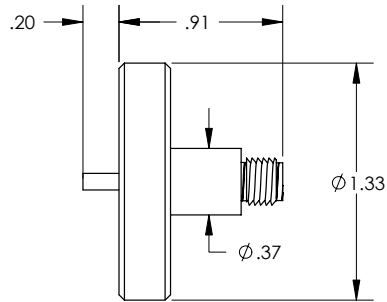
TYPE	PART #
SINGLE-ENDED / 50 Ohms	A1908-1-W

See Section 7 for connectors, wiring, and other accessories.

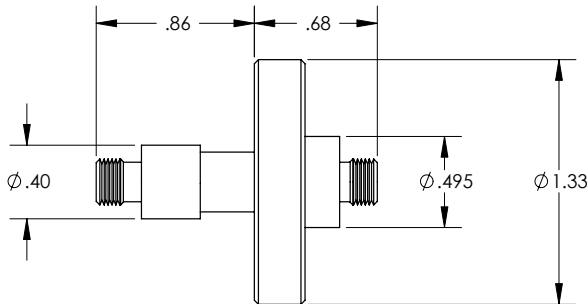


SMA

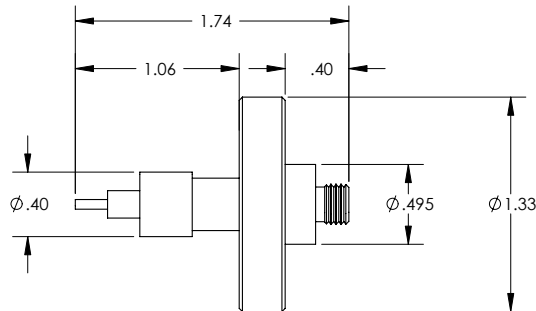
700 Volts DC / 1 Amp
Air-side Connector Included
CONFLAT FLANGE



TYPE	PART #
SINGLE-ENDED	A1911-2-CF



TYPE	PART #
DOUBLE-ENDED / 50 Ohms	A1835-1-CF

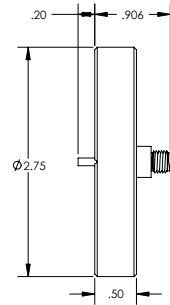


TYPE	PART #
SINGLE-ENDED / 50 Ohms	A1921-1-CF

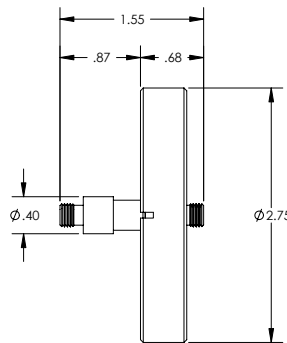
See Section 7 for connectors, wiring, and other accessories.



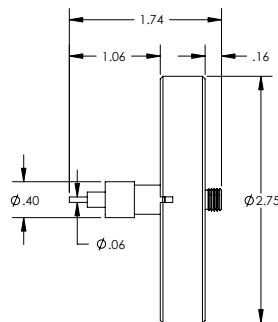
SMA
700 Volts DC / 1 Amp
Air-side Connector Included
CONFLAT FLANGE



TYPE	PART #
SINGLE-ENDED	A1911-1-CF



TYPE	PART #
DOUBLE-ENDED / 50 Ohms	A2286-1-CF



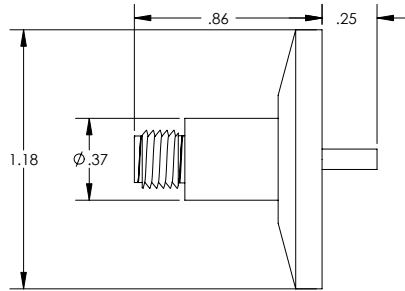
TYPE	PART #
SINGLE-ENDED / 50 Ohms	A1910-1-CF

See Section 7 for connectors, wiring, and other accessories.

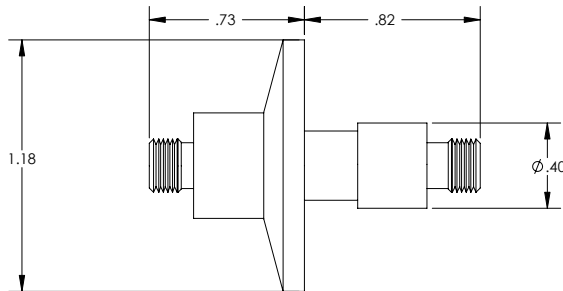


SMA

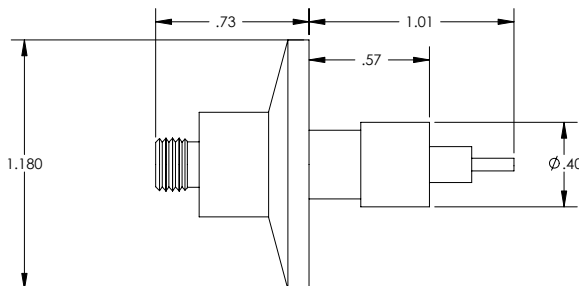
700 Volts DC / 1 Amp
Air-side Connector Included
QUICK FLANGE



TYPE	PART #
SINGLE-ENDED	A1920-1-QF



TYPE	PART #
DOUBLE-ENDED / 50 Ohms	A2127-1-QF

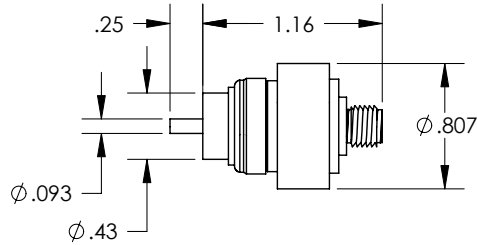


TYPE	PART #
SINGLE-ENDED / 50 Ohms	A1922-1-QF

See Section 7 for connectors, wiring, and other accessories.

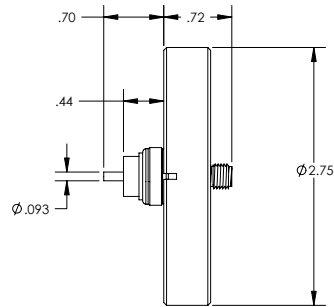


SMA
700 Volts DC / 1 Amp
Air-side Connector Included
WELDABLE



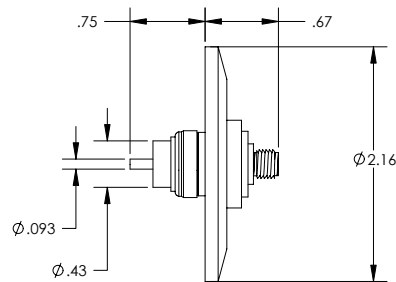
TYPE	PART #
SINGLE-ENDED	A1980-1-W

CONFLAT FLANGE



TYPE	PART #
SINGLE-ENDED	A1983-1-CF

QUICK FLANGE



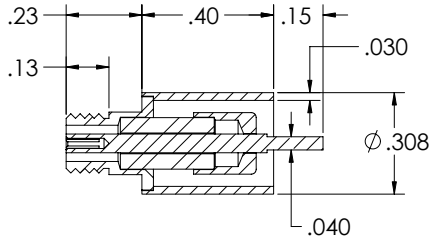
TYPE	PART #
SINGLE-ENDED	A1984-1-QF

See Section 7 for connectors, wiring, and other accessories.



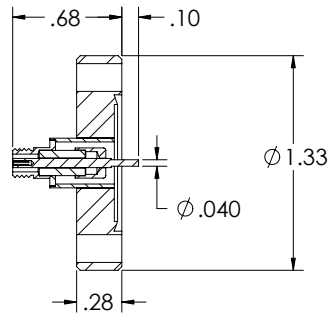
MICRODOT 500 Volts DC / 2 Amps *Air-side Connector Included*

WELDABLE



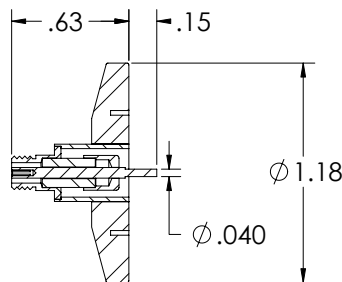
TYPE	PART #
SINGLE-ENDED	A1634-1-W

CONFLAT FLANGE



TYPE	PART #
SINGLE-ENDED	A1648-1-CF

QUICK FLANGE



TYPE	PART #
SINGLE-ENDED	A1649-1-QF

See Section 7 for connectors, wiring, and other accessories.



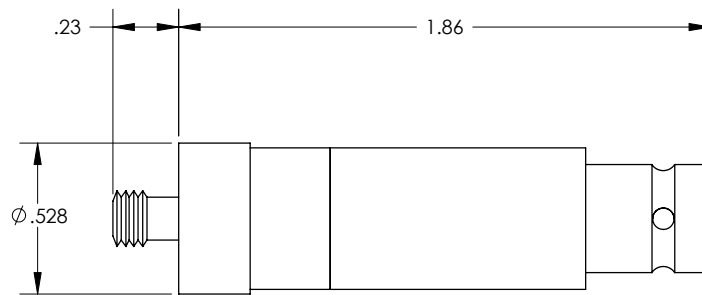
BETWEEN SERIES COAXIAL

500 Volts DC / 2 Amps

Air-side Connector Included

BNC to Microdot / Crystal Sensor Feedthrough

WELDABLE



TYPE	PART #
SINGLE-ENDED	A0975-1-W

See Section 7 for connectors, wiring, and other accessories.



BETWEEN SERIES COAXIAL

500 Volts DC / 2 Amps

Air-side Connector Included

BNC to Microdot / Crystal Sensor Feedthrough CONFLAT FLANGE

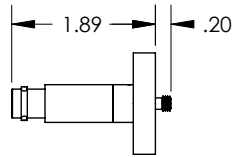


Fig. 1

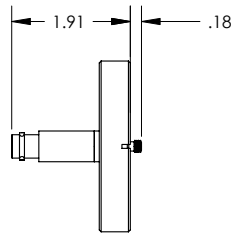
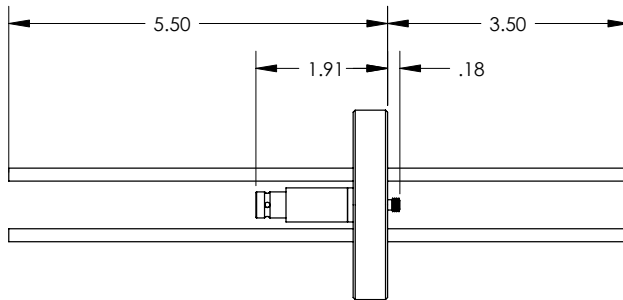


Fig. 2

PART #	FIG	COAX	COOLING LINES	FLANGE
A2554-1-CF	1	1	---	1.33 CF
A2750-1-CF	2	1	---	2.75 CF



PART #	COAX	COOLING LINES	FLANGE
A2728-1-CF	1	2	2.75 CF

See Section 7 for connectors, wiring, and other accessories.

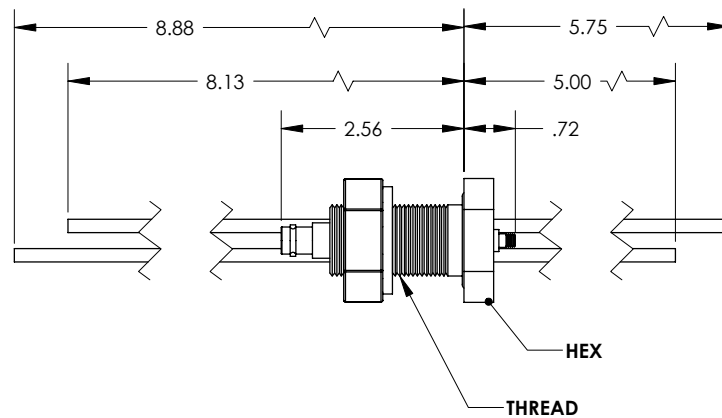


BETWEEN SERIES COAXIAL

500 Volts DC / 2 Amps

Air-side Connector Included

**BNC to Microdot / Crystal Sensor Feedthrough
BASEPLATE**



PART #	COAX	COOLING LINES	MOUNT
A7164-1-BP	1	2	1" BP

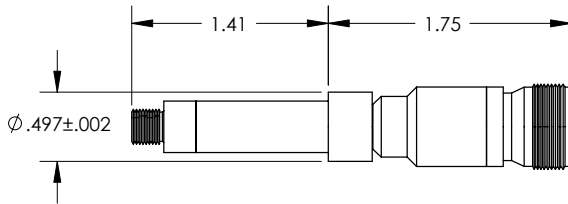
See Section 7 for connectors, wiring, and other accessories.



BETWEEN SERIES COAXIAL

500 Volts DC / 1 Amp
Air-side Connector Included

Type N to SMA WELDABLE



PART #

A3888-1-W

CONFLAT FLANGE

Fig. 1

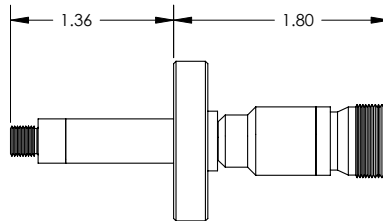
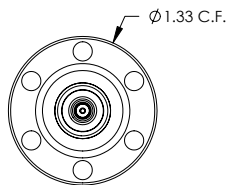


Fig. 2

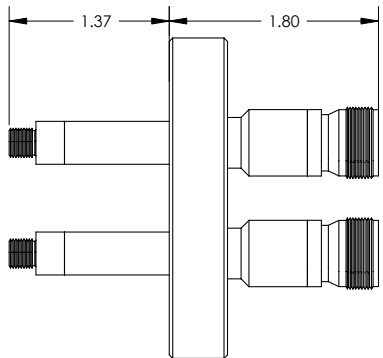
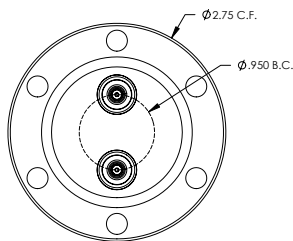


FIG	FLANGE	PART #
1	1.33 CF	A8223-1-CF
2	2.75 CF	A3892-1-CF

See Section 7 for connectors, wiring, and other accessories.



BETWEEN SERIES COAXIAL

500 Volts DC / 1 Amp
Air-side Connector Included

Type N to SMA
QUICK FLANGE

Fig. 1

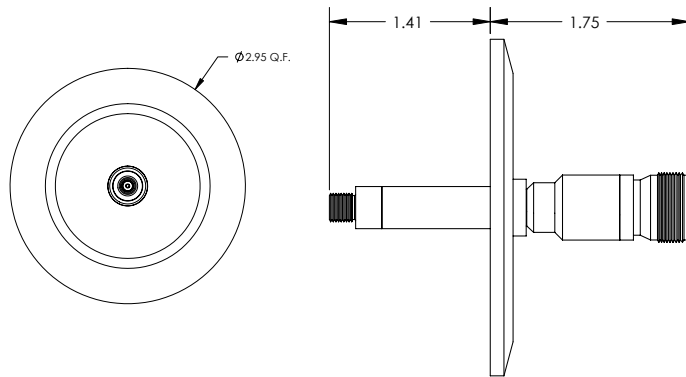


Fig. 2

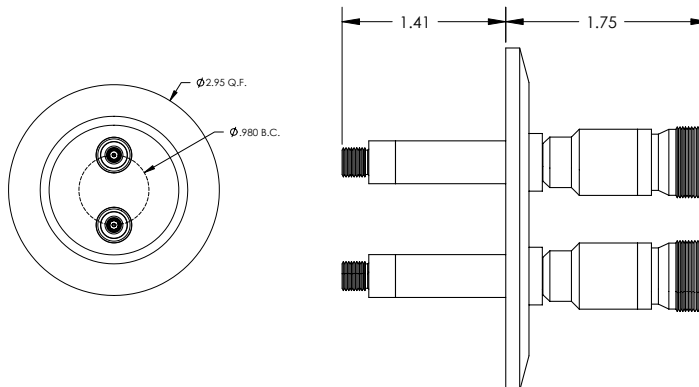


FIG	FLANGE	PART #
1	QF 50	A8224-1-QF
2	QF 50	A8224-2-QF

See Section 7 for connectors, wiring, and other accessories.

