

7/16 Connectors Series



Content.....	Page
Description	2
Interface Dimensions	2
Interface Dimensions in mm/inches	2
Characteristics	3
Cable Connectors	4
Panel Receptacles	5
Termination	6
Assembly Instruction	7

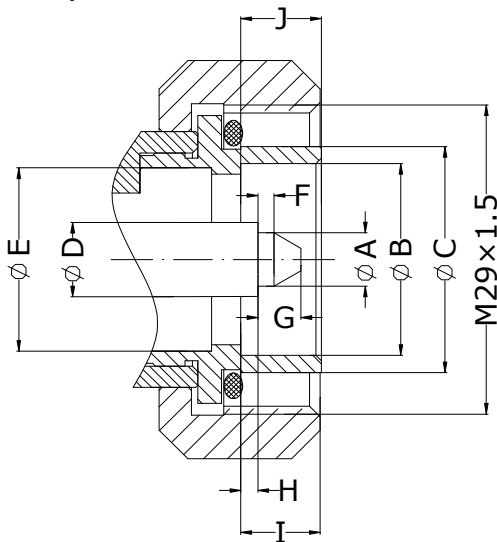
Description

The 7/16 series name comes from the metric dimensions of the connector interface: 7mm OD of inner contact, 16 mm ID of outer contact. 7/16 connectors are designed for use in communications systems with power levels of 100 watts per channel. RF coaxial connectors are the most important element in the cable system.

Interface Dimensions

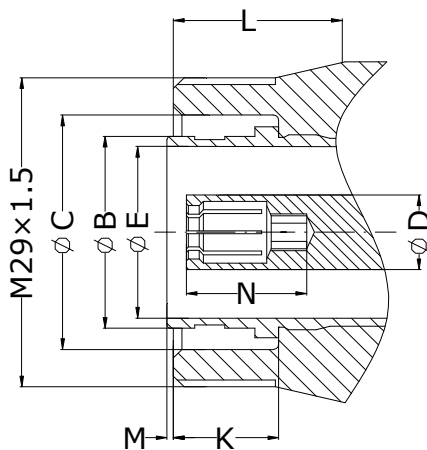
Interface Dimensions (mm/inches)

Plug (male)



	Plug		Jack	
	min.	max.	min.	max.
A	4.96/.195	5.04/.198	-	-
B	18.03/.710	18.21/.717	-	18.50/.728
C	20.60/.811	21.40/.843	22.10/.870	22.90/.902
D	7.00/.276		7.00/.276	
E	15.85/.624	16.25/.640	15.85/.624	16.25/.640
F	1.40/.055	1.60/.063	-	-
G	-	4.50/.177	-	-
H	1.47/.058	1.77/.070	-	-
I	7.00/.276	9.00/.354	-	-
J	7.00/.276	8.00/.315	-	-
K	-	-	8.1/.319	-
L	-	-	10.00/.394	-
M	-	-	0.50/.020	0.70/.028
N	-	-	5.00/.197	-

Jack (female)



Interface dimensions conformable to the standards:

International: **IEC 60169-15**
 Europe: **CECC 22110**
 USA: **MIL-C-39012, SMA**
Interface MIL-STD-348a/310
 GB: **BS 9210 N 0006**
 F: **NF-C-93563(KMR)**

Characteristics

ELECTRICAL	REQUIREMENTS
Impedance	50
Frequency range	DC to 7.5 GHz
Dielectric Withstanding Voltage	2500 V rms 50 Hz, sea level
Working Voltage	≤1,000 V rms 50 Hz, sea level
VSWR	Straight connector, .141": ≤1.28 (DC~5GHZ)
	Straight connector, RG316: ≤1.21 (DC~3GHZ)
	Right angle connector, .141": ≤1.42 (DC~5GHZ)
	Right angle connector, RG316: ≤1.35 (DC~3GHZ)
Insulation Resistance	10×10 ³ MΩ min.(initial)
Contact Resistance	
- Center contact	0.4 m max..
- Outer contact	1.5 m max.
RF-leakage (at 1GHz)	-130 min.

MECHANICAL	REQUIREMENTS
Coupling Nut Torque	
-recommended	25 Nm~30 Nm / 221~260 in. lbs
-proof torque	35 Nm /310 in. lbs
Coupling Nut Retention Force	≥1000 N /225.0 lbs
Contact Captivation	≥200 N/45.0 lbs
Cable Retention Force	
- cable 5/50	250 N/60 lbs
- cable10/50	250 N/60 lbs (single braid)
- cable 1/4"	200 N/48 lbs (double braid)
-cable 3/8"	250 N/60 lbs
-cable 1/2"	350 N/84 lbs
-cable 7/8"	500 N/120 lbs
Durability (Mating Cycles)	500 min.

ENVIRONMENTAL	REQUIREMENTS
Temperature Range	-65°C to +165°C
Climactic Category	4.6.5 →55/155/56
Corrosion	4.6.10 →IEC-68-2-11 Ka
Vibration	4.6.3 →IEC-68-2-6 Fc

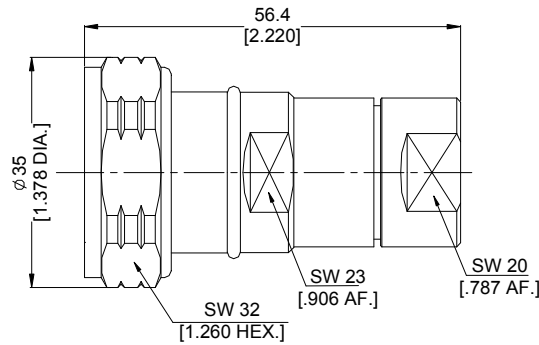
Note: The above characteristics are typical but may not apply to all connectors.

Cable Connectors

Straight Cable Plugs (male)

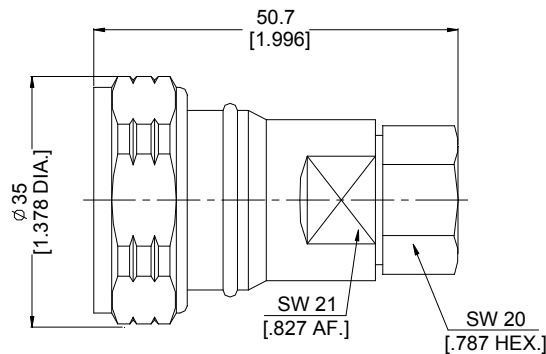
>for flexible cables

Part No.	Cable Group (Example)	Finish	Remarks	Assembly Instruction
ANO 5611-2004	1/2" RF	Nickel	Clamp	AI 01



>for flexible cables

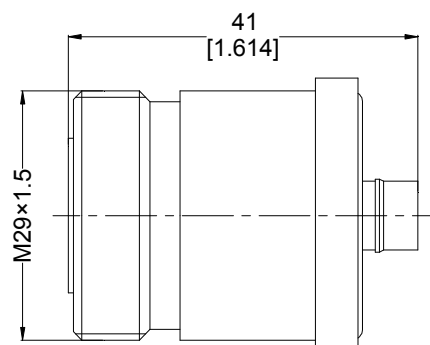
Part No.	Cable Group (Example)	Finish	Remarks	Assembly Instruction
ANO 5611-2005	1/2" Super Flexible RF	Nickel	Clamp	AI 02



Straight Cable Jacks (female)

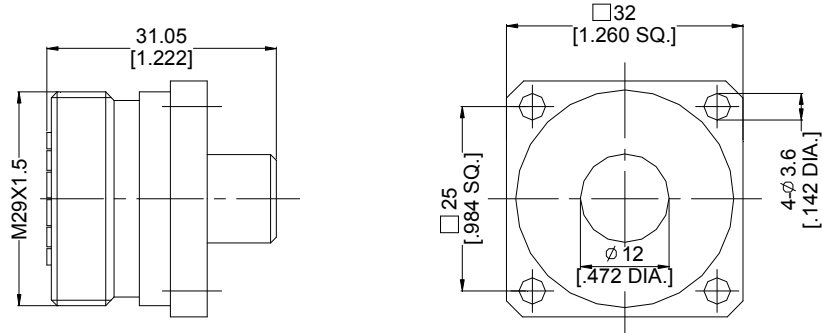
>for semi-rigid cables

Part No.	Cable Group (Example)	Finish	Remarks	Assembly Instruction
ANO 5612-2006	semi-rigid .250"	Nickel	Solder	AI 03



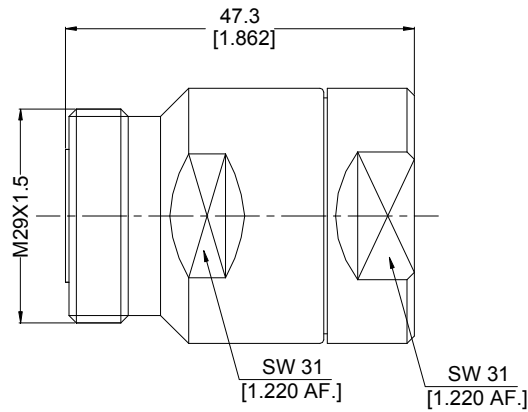
>for semi-rigid cables

Part No.	Cable Group (Example)	Finish	Remarks	Assembly Instruction / Mounting Hole
ANO 5612-2008	semi-rigid .250"	Albaloy	Solder	AI 03/MH 19



>for flexible cables

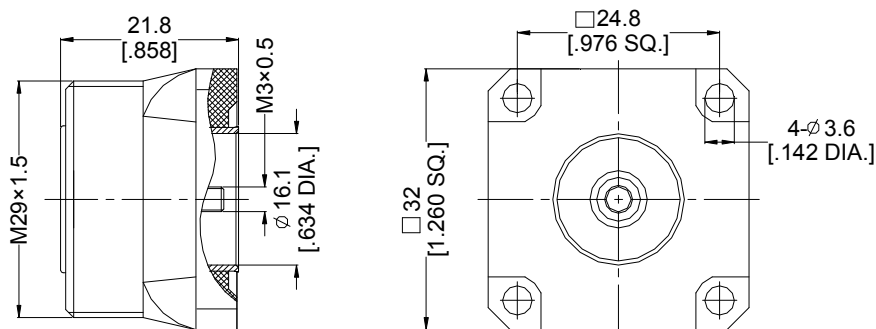
Part No.	Cable Group (Example)	Finish	Remarks	Assembly Instruction
ANO 5612-2007	7/8" RF	Nickel	Clamp	AI 04



Panel Receptacles

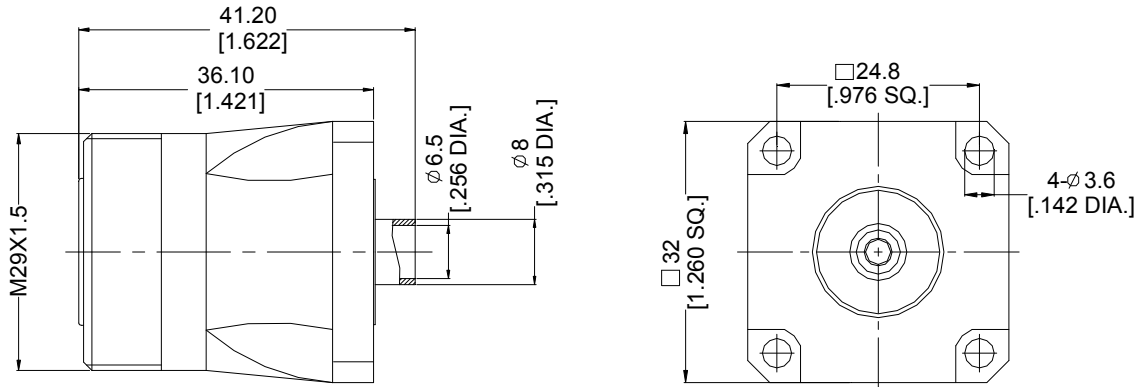
Receptacles, jack (female)

Part No.	Finish	Mounting Hole
ANO 5612-3002	Albaloy	MH 20



Receptacles, jack (female)

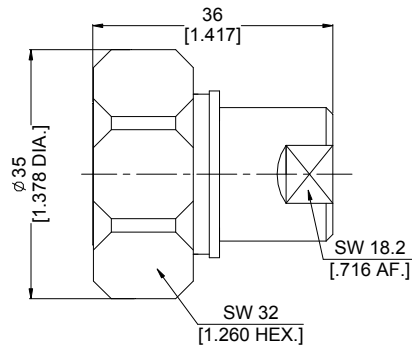
Part No.	Finish	Mounting Hole
ANO 5612-3003	Albaloy	MH 20



Termination

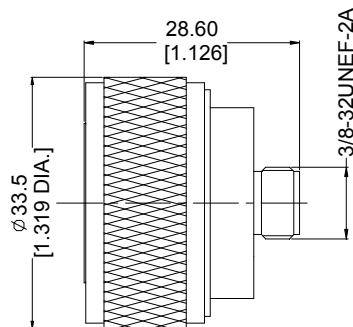
Straight Plugs (male)

Part No.	Finish	Average Power	Peak Power	Frequency
ANO 561-701	Silver	6 W	1000 W	0-4 GHz



Straight Plugs (male)

Part No.	Finish	Average Power	Peak Power	Frequency
ANO 561-702	Albaloy	6 W	1000 W	0-4 GHz

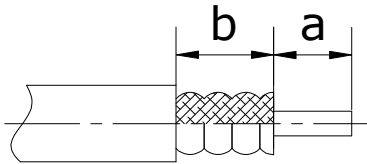


Assembly Instruction

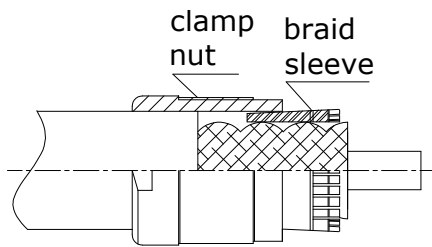
AI 01

Part No.	Cable Group (Example)	Stripping Length	
		a	b
ANO 5611-2004	1/2" RF	8.0	12.0

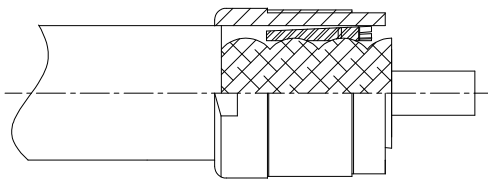
①



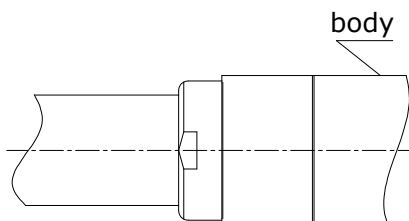
②



③



④



- 1.1 Disassembly of connector.
- 1.2 Strip the cable.
- 1.3 Cutting position on corrugation crest.
- 1.4 Deburr (remove all the particles).
Do not deform the cable.

- 2.1 Slide the clamp nut and the braid sleeve onto cable until part snaps in at first corrugation root.

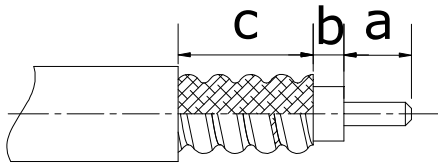
- 3.1 Slide the clamp nut over the braid sleeve until stop.

- 4.1 Screw the body onto the assembly.

AI 02

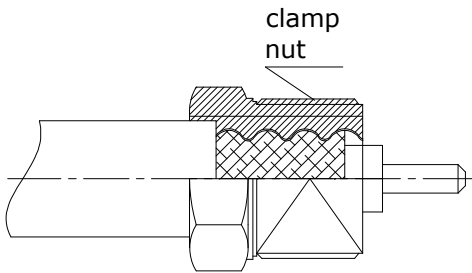
Part No.	Cable Group (Example)	Stripping Length		
		a	b	c
ANO 5611-2005	1/2" Super Flexible RF	7.0	5.0	15.0

①



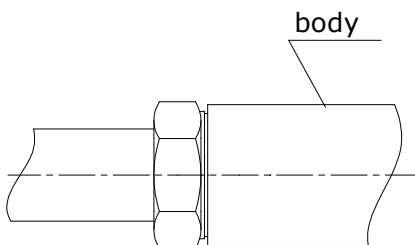
- 1.1 Strip the cable.
Do not damage the outer conductor.
- 1.2 Deburr cable inner conductor.

②



- 2.1 Screw manually the braid clamp nut onto cable outer conductor until stop.

③

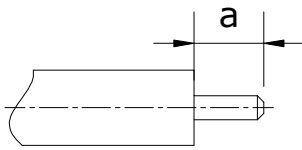


- 3.1 Screw the body onto the assembly.

AI 03

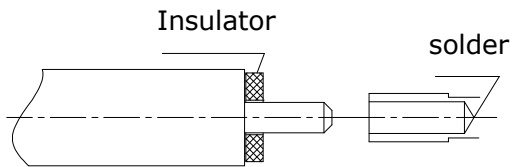
Part No.	Cable Group (Example)	Stripping Length
		a
ANO 5612-2006	semi-rigid .250"	6.0
ANO 5612-2008		5.5

①



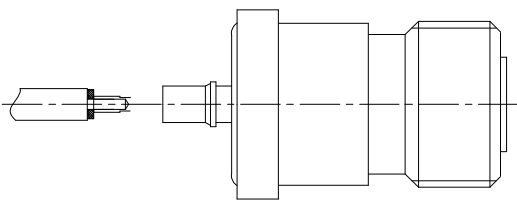
1.1 Strip the cable.

②



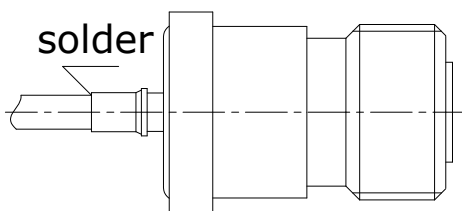
- 2.1 Slide the insulator onto the cable inner conductor.
- 2.2 Slide on center contact until it bottoms against insulator.
- 2.3 Solder center contact.

③



3.1 Slide the cable into the body until it bottoms against insulator.

④

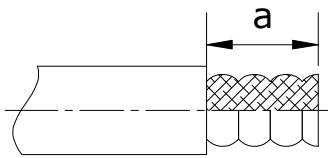


- 3.1 Solder the body onto the cable.
- 3.2 Clean soldering area.

AI 04

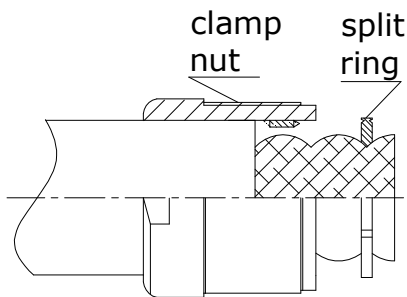
Part No.	Cable Group (Example)	Stripping Length a
ANO 5612-2007	7/8" RF	6.0

①



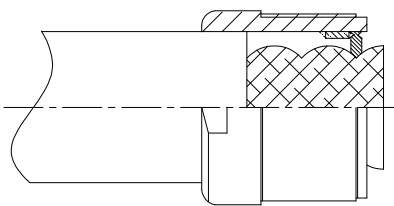
- 1.1 Strip the cable.
Do not damage the outer conductor.

②



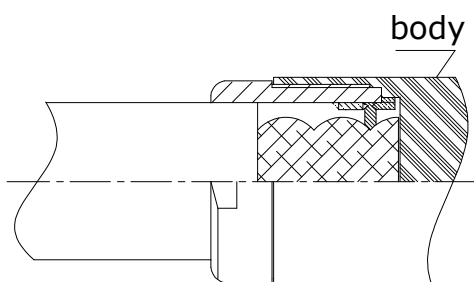
- 2.1 Slide the clamp nut and the split ring onto the cable and make the split ring at first corrugation root.

③



- 3.1 Slide the clamp nut over the split ring until stop.

④



- 4.1 Screw the body onto the assembly.