

4.3-10 Connectors Series



Description

4.3-10 Series Connectors

The new 4.3-10 series connectors are designed to address the increasing demands in the mobile communications industry including increasing performance demand, low PIM and at the same time reducing its size to support ongoing space reduction requirements.

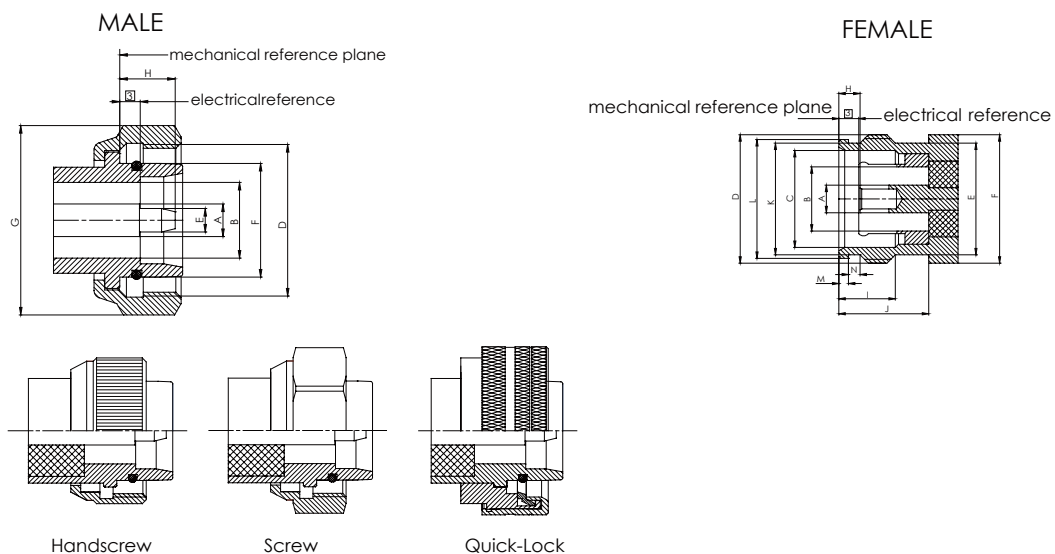


- A major improvement with the 4.3-10 series of connectors is achieved by separating the electrical and mechanical reference planes. The result is a flexible solution with one universal jack and 3 available plug types. The three coupling mechanisms (hand-screw, screw and push pull) can meet the same universal jack (female) and have the same low PIM and return loss performance. At the same time, the design requires up to 5 times less torque than previous connector types. This enables the connectors to be installed without tools (hand-screw and push-pull) or using a simple wrench (screw).
- The 4.3-10 connectors are a much more compact design which allows for higher connector density on equipment while reducing the weight up to 60%. The result is a system that will support up to 500 Watt at 2 GHz in more compact equipment designs demanded by the evolving mobile environments.

In summary, the 4.3-10 series of connectors offer:

- Flexible solution with one universal jack and 3 different plug types
- Reliable PIM independent of torque
- Excellent electrical performances
- Longer life time due to reduced torque requirements
- Small footprint (40% less than 7-16)
- Light weight

INTERFACE DIMENSIONS



	Male		Female	
	min.	max.	min.	max.
A	4.35 nom.		4.35 nom.	
B	10.00 nom.		9.80	10.20
C	-	-	15.13	15.19
D	M20x1		M20x1	
E	3.07	3.13	17.45	17.55
F	15.07	15.11	18.60	-
G	SW22		-	-
H	-	8.00	3.10	3.50
I	-	-	8.70	9.00
J	-	-	13.90	14.10
K	-	-	17.40	17.50
L	-	-	18.44	18.50
M	-	-	1.44	1.50
N	-	-	1.70	1.90

Three different coupling mechanisms of the 4.3-10 plugs screw, quick-lock/push-pull and hand-screw types are mateable with all 4.3-10 jacks . (Dimensions in mm)

Features

- Interface according IEC 61169-54
- Frequency range DC to 12GHz
- Return loss(cable connector straight) $\geq 36\text{dB}$ @ DC to 4 GHz
- Low PIM
- Screw, quick-lock/push-pull, hand-screw coupling
- Product Range
- Cable connectors
- Panel connectors
- Adaptors

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CHARACTERISTICS

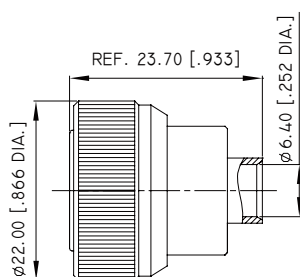
ELECTRICAL	
Impedance	50 Ω
Frequency range	DC -12 GHz
Dielectric Withstanding Voltage	2500 V rms 50 Hz, sea level
Working Voltage	≤ 500 V rms 50 Hz, sea level
VSWR	≤ 1.05 (DC -4GHz) ≤ 1.09 (4 - 6GHz)
Insulation Resistance	5×10^9 M Ohms min.
Power Handling	500 W @ 2 GHz typical
Contact Resistance	
- Center contact	≤ 1 m Ω
- Outer contact	≤ 1 m Ω
Intermodulation 3 rd order	≤ -160 dBc(2X46dBm) @ 0.4 to 4GHz ≤ -166 dBc(2x43dBm) @ 0.4 to 4GHz
RF-leakage	≥ 120 dB @ DC to 6GHz (screw type) ≥ 90 dB @ DC to 3GHz (hand-screw/ push-pull) ≥ 70 dB @ 3 to 6GHz (hand-screw/ push-pull)
MECHANICAL	
Durability (Mating Cycles)	≥ 100
Coupling Nut Retention	≥ 450 N
Center Contact Captivation	Axial: ≥ 30 N Radial: ≥ 5 N cm
Engagement Force	100 N (typ.)
Disengagement Force	80 N (typ.)
ENVIRONMENTAL	
Temperature Range	-55°C to +90°C
Climatic Category	IEC 60068-2-1 55/155/56
Thermal Shock	IEC 61169-1, Sub-clause 9.4.4
Corrosion Resistance	ISO 21207 Method B
Damp Heat	IEC 61169-1 SUB-CLAUSE 9.4.3
Degree of Protection(mated pair)	IEC 60529, IP68
Vibration	IEC 61169-1 Sub-clause 9.3.3
Shock	IEC 60068-2-27
Max. Soldering Temperature(PCB Connectors)	IEC 61760-1, +260°C for 10 sec

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

For Semi-Rigid Cable

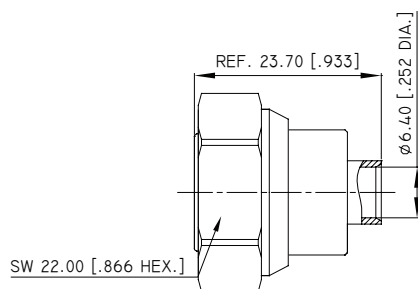
Straight Solder Type plug

- Cable entry soldered
- Centre contact plugged-in



Part No.	VSWR & FREQ. RANGE	Cable TYPE	BODY PLATING	ASSEMBLY INSTRUCTION	NOTE
ANO 4711-2005	≤ 1.30 (DC - 6GHz)	S4 (UT-250)	Albaloy	AI 4702	Handscrew type

- Cable entry soldered
- Centre contact plugged-in



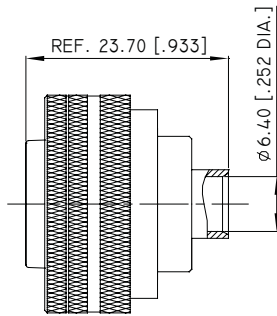
Part No.	VSWR & FREQ. RANGE	Cable TYPE	BODY PLATING	ASSEMBLY INSTRUCTION	NOTE
ANO 4711-2006	≤ 1.30 (DC - 6GHz)	S4 (UT-250)	Albaloy	AI 4702	Screw type

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For Semi-Rigid Cable

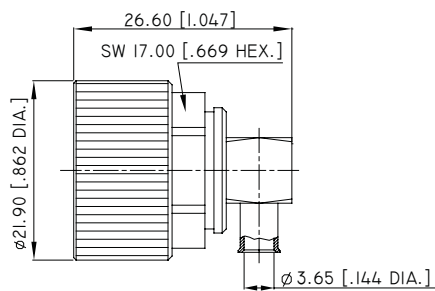
- Cable entry soldered
- Centre contact plugged-in



Part No.	VSWR & FREQ. RANGE	Cable TYPE	BODY PLATING	ASSEMBLY INSTRUCTION	NOTE
ANO 4711-2007	≤ 1.30 (DC - 6GHz)	S4 (UT-250)	Albaloy	AI 4702	PUSH PULL type

Right Angle Solder Type Plug

- Cable entry soldered
- Centre contact soldered

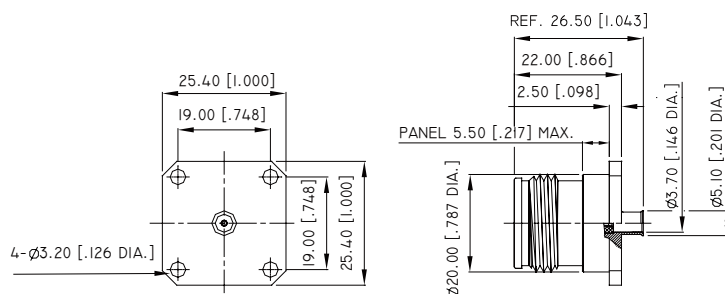


Part No.	VSWR & FREQ. RANGE	Cable TYPE	BODY PLATING	ASSEMBLY INSTRUCTION
ANO 4721-2002	≤ 1.30 (DC - 6GHz)	S3 (UT-141)	Albaloy	AI 4701

For Semi-Rigid Cable

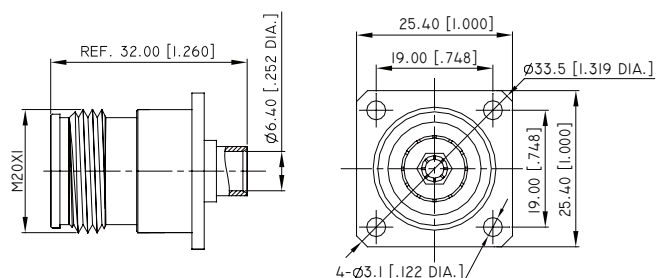
Straight Solder type 4 hole flange jack

- Cable entry soldered
- Centre contact plugged-in



Part No.	VSWR & FREQ. RANGE	Cable TYPE	BODY PLATING	ASSEMBLY INSTRUCTION
ANO 4712-2009	≤ 1.30 (DC - 6GHz)	S3 (UT-141)	Albaloy	AI 4702

- Cable entry soldered
- Centre contact plugged-in



Part No.	VSWR & FREQ. RANGE	Cable TYPE	BODY PLATING	ASSEMBLY INSTRUCTION
ANO 4712-2008	≤ 1.30 (DC - 6GHz)	S4 (UT-250)	Albaloy	AI 4702

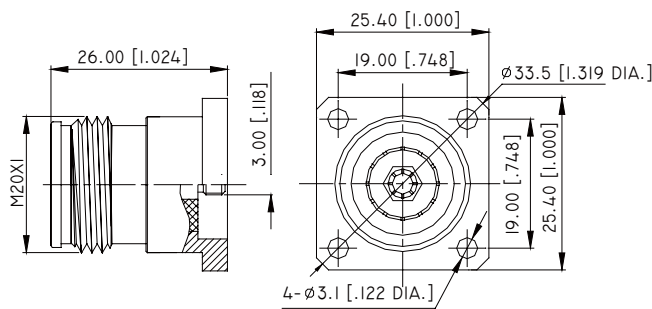
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PANEL MOUNT

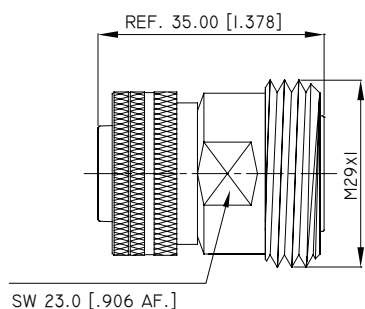
4 Hole Flange Mount Jack Receptacle



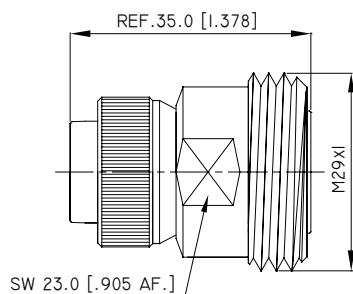
Part No.	VSWR & FREQ. RANGE	BODY PLATING	PCB LAYOUT
ANO 4712-3003	≤ 1.30 (DC - 6GHz)	Albaloy	MH4701

BETWEEN SERIES ADAPTERS

4.3-10 Plug to 7-16 Jack



Part No.	VSWR & FREQ. RANGE	BODY PLATING	NOTE
ANO 471-562-1292	≤ 1.20 (DC – 7.5GHz)	Albaloy	Push Pull type



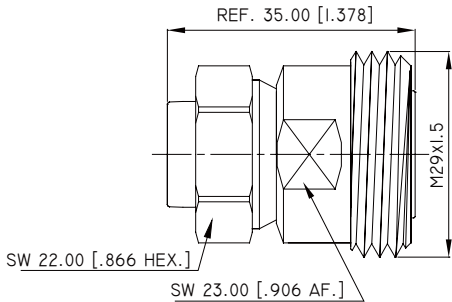
Part No.	VSWR & FREQ. RANGE	BODY PLATING	NOTE
ANO 471-562-1295	≤ 1.20 (DC – 7.5GHz)	Albaloy	Handscrew type

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4.3-10 Connectors Series

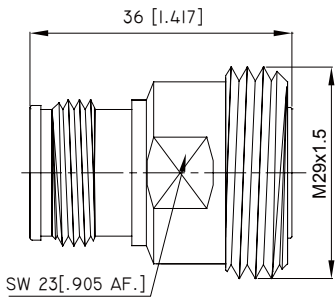


BETWEEN SERIES ADAPTERS



Part No.	VSWR & FREQ. RANGE	BODY PLATING	NOTE
ANO 471-562-1293	≤ 1.20 (DC – 7.5GHz)	Albaloy	Screw type

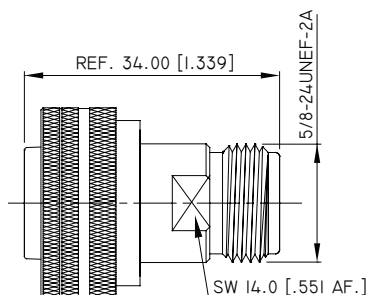
4.3-10 Jack to 7-16 Jack



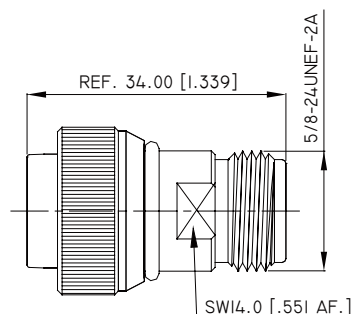
Part No.	VSWR & FREQ. RANGE	BODY PLATING	NOTE
ANO 472-562-1294	≤ 1.30 (DC – 6GHz)	Albaloy	

BETWEEN SERIES ADAPTERS

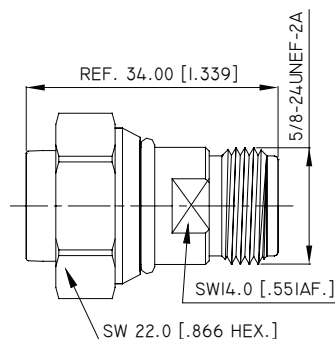
4.3-10 Plug to N Jack



Part No.	VSWR & FREQ. RANGE	BODY PLATING	NOTE
ANO 471-512-1298	≤ 1.20 (DC – 6GHz)	Albaloy	Push Pull type



Part No.	VSWR & FREQ. RANGE	BODY PLATING	NOTE
ANO 471-512-1297	≤ 1.20 (DC – 6GHz)	Albaloy	Handscrew type



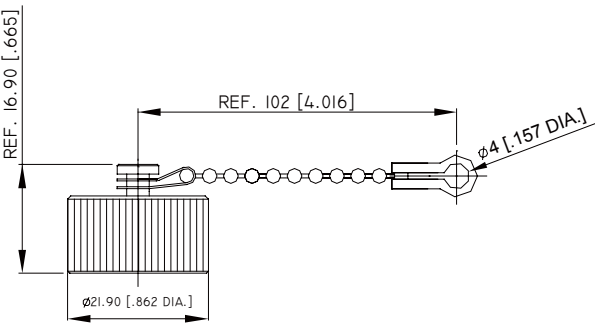
Part No.	VSWR & FREQ. RANGE	BODY PLATING	NOTE
ANO 471-512-1296	≤ 1.20 (DC – 6GHz)	Albaloy	Screw type

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Dust CUP WITH CHAIN



Part No.	BODY PLATING	NOTE
ANO 4711-6004	Albaloy	For Jacks