

Series 4.3-10

Description

HUBER+SUHNER 4.3-10 connectors offer very low PIM performance together with weight and compactness advantages. A key feature of this connector is the separation of the electrical and mechanical plane, which results in a lower coupling torque and the possibility of offering the connector with screw, hand-screw and quick-lock design, thus simplifying the installation effort and offering for all mechanisms a very high and reliable electrical performance independently from the torque applied.

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Applications

Superior electrical and mechanical features of 4.3-10 make it an ideal interface for base stations, distributed antenna systems (DAS), in-building architecture and small cell applications.

Features

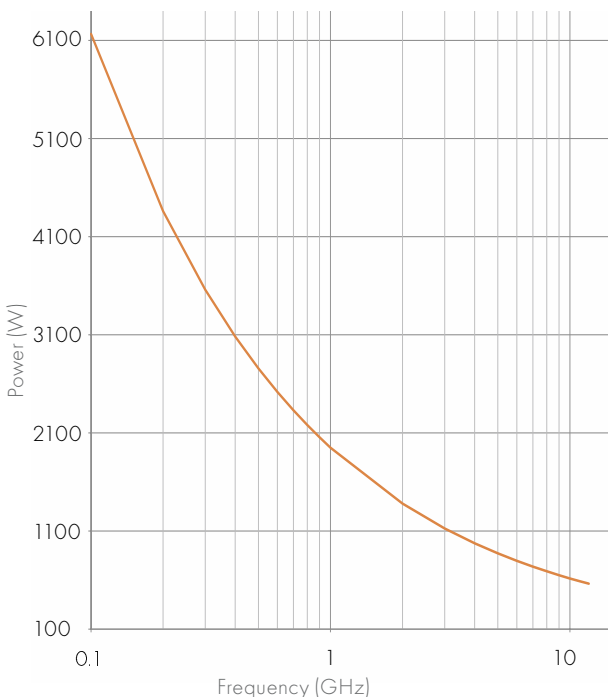
- Radial contact
- Compact size (25.4 mm flange)
- 40 % lower weight than 7/16
- Multiple coupling options
- Ease of installation
- Protection of electrical contact points

Benefits

- Excellent PIM and RL independent of torque
- Space saving
- Lightweight antennas and radios
- Flexible installation
- Lower cost of ownership
- No performance degradation due to infield damages

Admissible power ¹⁾

$T_{amb} = 25 \text{ °C/sea level}$
 $VSWR = 1.0$



¹⁾ The curves are the result of a typical application and are simulation results.



Series 4.3-10 – technical data

The 4.3-10 interface dimensions conform to the international standards IEC 61169-54.

Electrical data	IEC 61169-1	
Nominal impedance		50 Ω
Frequency range		up to 12 GHz
Reflection factor (interface only)	9.2.1.	0.015 max. DC to 4 GHz (RL \geq 36 dB) 0.025 max. 4 to 6 GHz (RL \geq 32 dB)
Centre and outer contact resistance	9.2.3.	initial \leq 1.0 m Ω after conditioning \leq 1.5 m Ω
Insulation resistance	9.2.5.	initial \geq 5 G Ω after conditioning \geq 200 M Ω
Proof voltage at sea level r.m.s. values at 40 Hz to 60 Hz	9.2.6.	2500 V
Screening effectiveness • Torque/screw type • Screw	9.2.8.	DC to 6 GHz \geq 120 dB DC to 3 GHz: \geq 90 dB; 3 to 6 GHz: \geq 70 dB
Intermodulation • 2 \times 20 W • 2 \times 40 W	IEC 62037-3	-166 dBc (0.4 to 4 GHz) -160 dBc (0.4 to 4 GHz)

Mechanical data	IEC 61169-1	
Mechanical operations/matings	9.3.15	> 100 operations
Centre contact captivation (axial force)	9.3.5.	30 N
Coupling torque (screw)	9.3.6.	\geq 5 Nm
Engagement force (quick-lock)	9.3.6.	typ. 100 N
Separation force (quick-lock)	9.3.6.	typ. 80 N
Coupling mechanism retention force (quick-lock)	9.3.11.	\geq 450 N
Vibration	9.3.3.	100 m/s ² , 10 g acceleration, 2 to 200 Hz
Shock	9.3.14.	981 m/s ² , 100 g acceleration, 1/2 sin 6 ms

Environmental data	IEC 61169-1	
Temperature range		-55 to +90 $^{\circ}$ C
Climatic category ¹⁾		40/85/21
Sealing	IEC 60529	IP X8 2.5 bar, 1 h, 25 $^{\circ}$ C
Salt mist	9.4.6.	duration of spraying 48 h
High temperature endurance	9.6.	250 h at 85 $^{\circ}$ C

Performance listed is typical for 4.3-10 interface and individual connector performance may vary depending on connector design and cable used. Please contact a HUBER+SUHNER representative for detailed information on specific connector types.

¹⁾ For certain connectors the upper temperature limit is restricted by the cable characteristics. Reference should be made to the relevant cable specification.

Series 4.3-10 – cable connectors

Straight cable plugs (male)

For semi-rigid, Sucoform and Multiflex cables

- Cable entry soldered
- Centre contact soldered

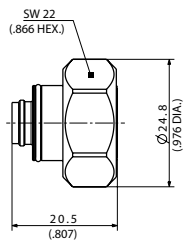


Fig. 1

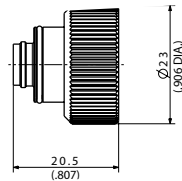


Fig. 2

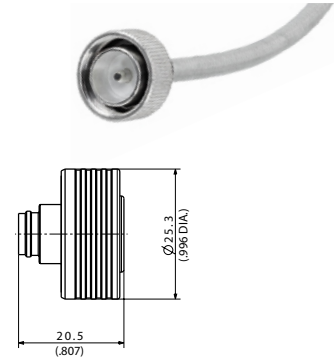


Fig. 3

HUBER+SUHNER type	Item no.	Cable group (example)	Packaging	Fig.
11_4310-50-5-X1/003_-H 11_4310-50-5-X1/003_-E	85020471 85021044	Y14 (SUCOFORM_250-1, EZ_250)	bulk 100 pcs. single	1
11_4310-50-5-Y1/003_-H 11_4310-50-5-Y1/003_-E	85020517 85021045	Y14 (SUCOFORM_250-1, EZ_250)	bulk 100 pcs. single	2
11_4310-50-5-Z1/003_-H 11_4310-50-5-Z1/003_-E	85020523 85021047	Y14 (SUCOFORM_250-1, EZ_250)	bulk 100 pcs. single	3

X: torque, Y: hand screw, Z: quick-lock

Right angle cable plugs (male)

For semi-rigid, Sucoform and Multiflex cables

- Cable entry soldered
- Centre contact soldered

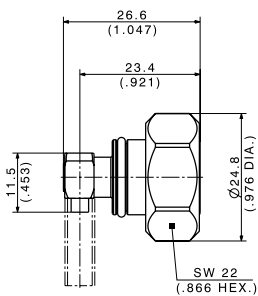


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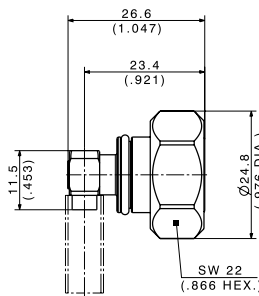


Fig. 2



HUBER+SUHNER type	Item no.	Cable group (example)	Packaging	Fig.
16_4310-50-2-X2/003_-H	85029015	Y3 (SUCOFORM_86)	bulk 100 pcs.	1
16_4310-50-3-X1/003_-H	85064160	Y12 (SUCOFORM_141)		2

X: torque

Series 4.3-10 – cable connectors

Right angle cable plugs (male)

For semi-rigid, Sucoform and Multiflex cables

- Cable entry soldered
- Centre contact soldered

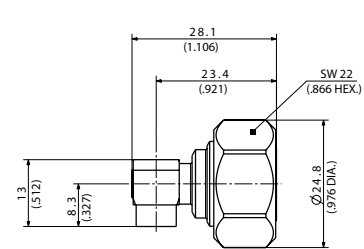


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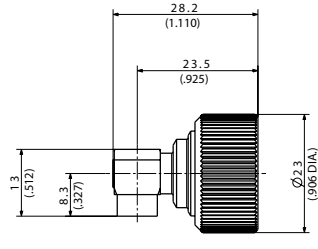


Fig. 2

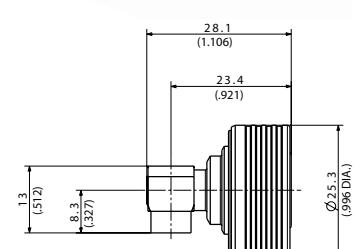


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HUBER+SUHNER type	Item no.	Cable group (example)	Packaging	Fig.
16_4310-50-5-X1/003_-H 16_4310-50-5-X1/003_-E	85020524 85021049	Y14 (SUCOFORM_250-1)	bulk 100 pcs. single	1
16_4310-50-5-Y1/003_-H 16_4310-50-5-Y1/003_-E	85020525 85021070	Y14 (SUCOFORM_250-1)	bulk 100 pcs. single	2
16_4310-50-5-Z1/003_-H 16_4310-50-5-Z1/003_-E	85020526 85021071	Y14 (SUCOFORM_250-1)	bulk 100 pcs. single	3

X: torque, Y: hand screw, Z: quick-lock

Straight cable jacks (female)

For semi-rigid, Sucoform and Multiflex cables

- Cable entry soldered
- Centre contact soldered

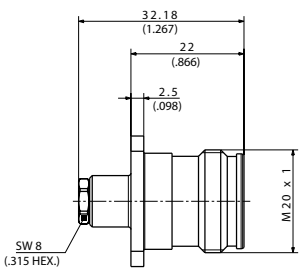
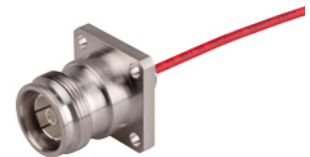


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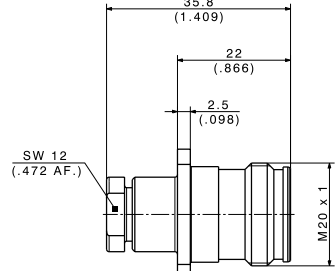
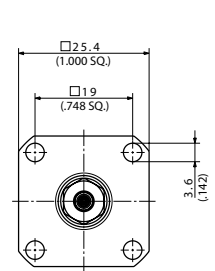
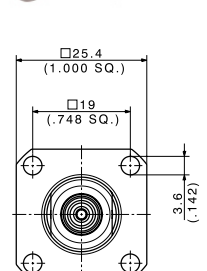


Fig. 2



HUBER+SUHNER type	Item no.	Cable group (example)	Packaging	Notes	Fig.
25_4310-50-2-1/003_-Y 25_4310-50-2-1/003_-E	85020530 85021079	Y16 (SUCOFORM_86)	tray 20 pcs. single	for cable type 0.086	1
25_4310-50-5-1/003_-Y	85064165	Y14 (SUCOFORM_250-1)	tray 50 pcs.	for cable size 0.250	2

4.3-10

Series 4.3-10 – receptacles

Straight panel receptacles (jack)

- With coaxial end
- 4 hole, 1 inch flange

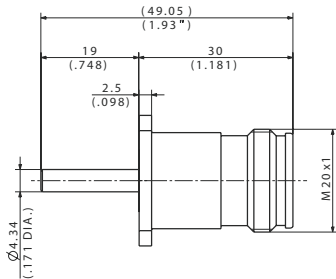


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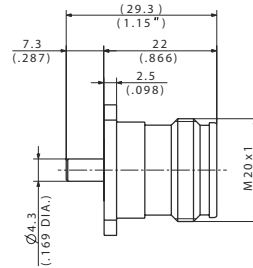
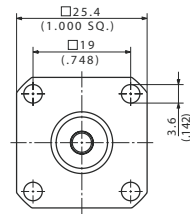


Fig. 2

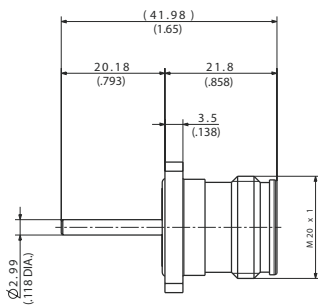
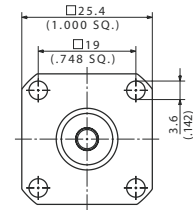


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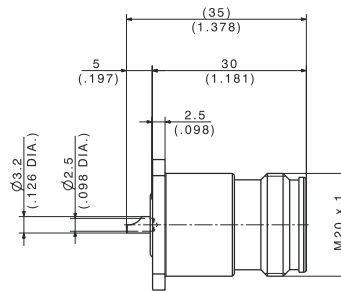
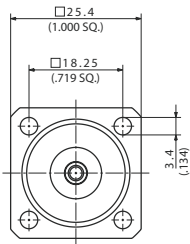
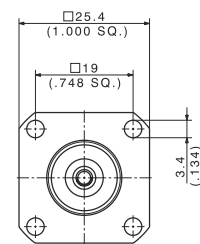


Fig. 4



HUBER+SUHNER type	Item no.	Packaging	Notes	Fig.
23_4310-50-0-1/003_Y 23_4310-50-0-1/003_E	85020598 85021072	tray 40 pcs. single		1
23_4310-50-0-2/003_Y 23_4310-50-0-2/003_E	85020599 85021073	tray 60 pcs. single		2
23_4310-50-0-5/003_Y 23_4310-50-0-5/003_E	85021011 85020470	tray 60 pcs. single	with panel seal	3
23_4310-50-0-16/003_Y	85064166	tray 50 pcs.		4