

Series PC 3.5 – precision subminiature connectors

Description

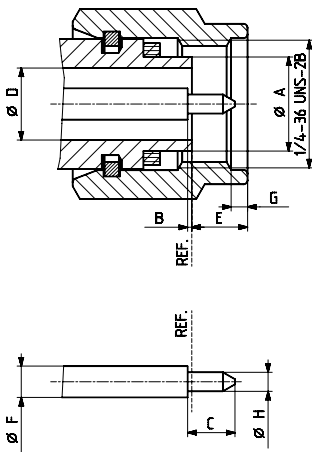
HUBER+SUHNER PC 3.5 connectors are precision connectors for use in microwave applications up to 26.5 GHz. They are especially suitable for use with semi-rigid cables and microwave components. They are intermateable with SMA and SK (2.92 mm) connectors. Due to an air dielectric interface and the more durable construction a superior repeatability further enhances the performance.

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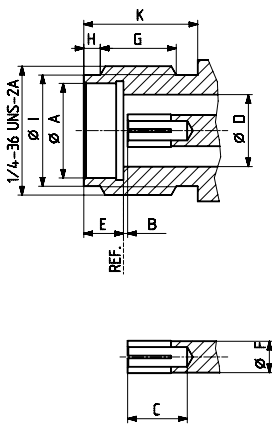
Interface dimensions (mm/inches)

Plug (male)



	Plug		Jack	
	min.	max.	min.	max.
A	4.55/0.179	4.58/0.180	4.60/0.181	4.63/0.182
B	0.00/0.000	0.08/0.003	0.00/0.000	0.08/0.003
C	2.03/0.080	2.29/0.090	2.79/0.110	3.18/0.125
D	3.49/0.138	3.51/0.138	3.49/0.138	3.51/0.138
E	2.36/0.093	3.56/0.135	1.88/0.074	1.98/0.078
F	1.51/0.060	1.52/0.060	1.51/0.060	1.52/0.060
G	0.38/0.015	1.14/0.045	3.35/0.132	4.62/0.182
H	0.92/0.036	0.93/0.037	0.38/0.015	1.14/0.045
I	-	-	5.30/0.209	5.40/0.213
K	-	-	5.54/0.218	-

Jack (female)



Interface dimensions conformable to the standards:

International: IEC 60169-23

Series PC 3.5 – technical data

Electrical data	Requirements
Impedance	50 Ω
Frequency range	DC to 26.5 GHz
Dielectric withstanding voltage (at sea level) <ul style="list-style-type: none"> • RG 405/U • RG 402/U 	750 V rms, 50 Hz 1000 V rms, 50 Hz
Working voltage (at sea level) <ul style="list-style-type: none"> • RG 405/U • RG 402/U 	≤ 250 V rms, 50 Hz ≤ 335 V rms, 50 Hz
Insulation resistance	≥ 5 · 10 ³ MΩ
Contact resistance <ul style="list-style-type: none"> • Centre contact • Outer contact 	≤ 3 mΩ ≤ 2 mΩ
RF leakage	≥ 100 dB · f [GHz] dB
VSWR (typical values) <ul style="list-style-type: none"> • RG 405/U • RG 402/U • Adaptors 	≤ 1.13 up to 26.5 GHz ≤ 1.10 up to 26.5 GHz ≤ 1.08 up to 18 GHz/≤ 1.15 up to 26.5 GHz

Mechanical data	Requirements
Coupling nut torque <ul style="list-style-type: none"> • Recommended 	0.80 to 1.10 Nm/7.1 to 9.7 in. lbs
Coupling nut retention force	≥ 270 N/60.7 lbs
Contact captivation	≥ 27 N/6.1 lbs
Cable retention force ¹⁾	see pages 32 – 37
Durability (matings)	≥ 500

Environmental data	Test conditions
Temperature range	–60 to +100 C / –76 to +212 °F
Thermal shock	MIL-STD-202, method 107, condition B
Moisture resistance	MIL-STD-202, method 106
Corrosion	saltspray test acc. to MIL-STD-202, method 101, condition B
Vibration	MIL-STD-202, method 204, condition D
Shock	MIL-STD-202, method 213, condition I

Material data		
Connector part	Material	Plating
Bodies	stainless steel	passivated
Cable entries	brass	gold
Centre contacts	copper-beryllium alloy	gold
Support beads	polystyrene, crosslinked	
Gaskets	silicone rubber	

Some connectors may have a specification that differs from the above mentioned data.

The products are designed and guaranteed to pass the above mentioned test procedures. Any additional or different requirement arising from specific applications or environmental conditions which is not covered by these test procedures is subject to request.

¹⁾ Value considers maximum load of the cables without irreversible variations of specifications.

Series PC 3.5 – cable connectors

Straight cable plugs (male)

For semi-rigid cables

- Cable entry soldered
- Centre contact plugged-in

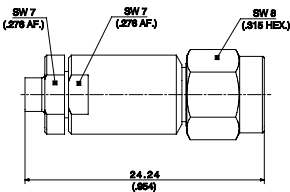


Fig. 1

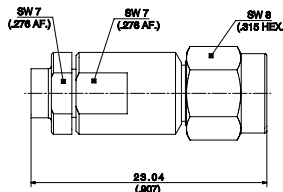


Fig. 2

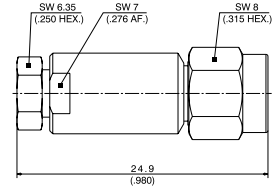


Fig. 3

HUBER+SUHNER type	Item no.	Cable group (example)	Packaging	Assembly instruction	Fig.
11_PC35-50-2-4/199_UE	84009440	Y3, Y16 (EZ_86)	single	0000215467	1
11_PC35-50-3-4/199_UE	84009380	Y5, Y12 (EZ_141)		0000215467	2
11_PC35-50-2-5/199_UE	84139219	Y11 (MF_86)		0000381973	3

Straight cable jacks (female)

For semi-rigid cables

- Cable entry soldered
- Centre contact plugged-in

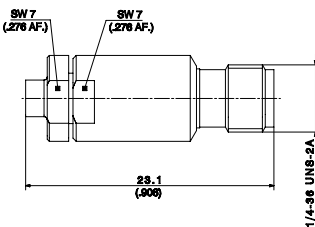


Fig. 1

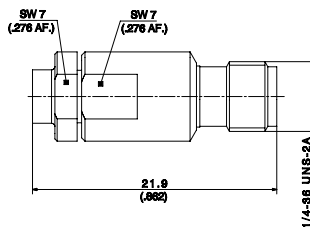


Fig. 2

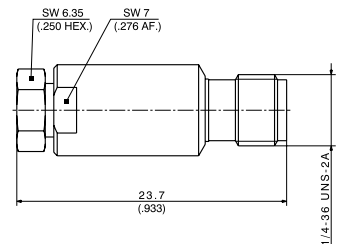


Fig. 3

HUBER+SUHNER type	Item no.	Cable group (example)	Packaging	Assembly instruction	Fig.
21_PC35-50-2-4/199_UE	84009419	Y3, Y16 (EZ_86)	single	0000215467	1
21_PC35-50-3-3/199_UE	84009382	Y5, Y12 (EZ_141)		0000215467	2
21_PC35-50-2-5/199_UE	84139085	Y11 (MF_86)		0000381865	3

Series PC 3.5 - cable connectors

Straight bulkhead cable jacks (female)

For semi-rigid cables

- Bulkhead mounted
- Cable entry soldered
- Centre contact plugged-in
- With panel seal

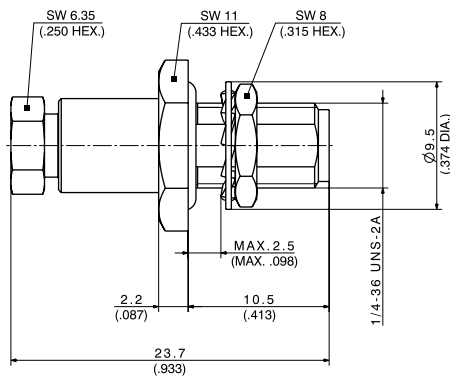


Fig. 1

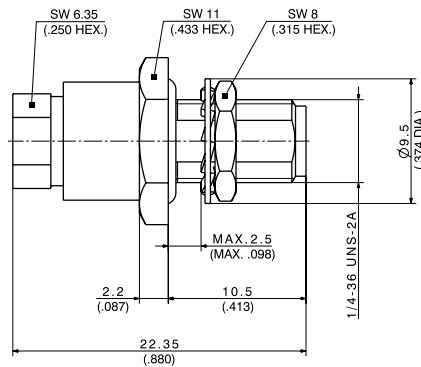


Fig. 2

HUBER+SUHNER type	Item no.	Cable group (example)	Packaging	Assembly instruction	Mounting hole	Fig.
24_PC35-50-2-3/19_UE	84023357	Y3, Y16 (EZ_86)	single	0000238568	ML 35	1
24_PC35-50-2-5/199_UE	84139301	Y11 (MF_86)		0000382070		1
24_PC35-50-3-3/199_UE	84023038	Y5, Y12 (EZ_141)		0000234974		2

Series PC 3.5 – flange mount connectors

Flange mount, jacks (female)

- Panel mounted

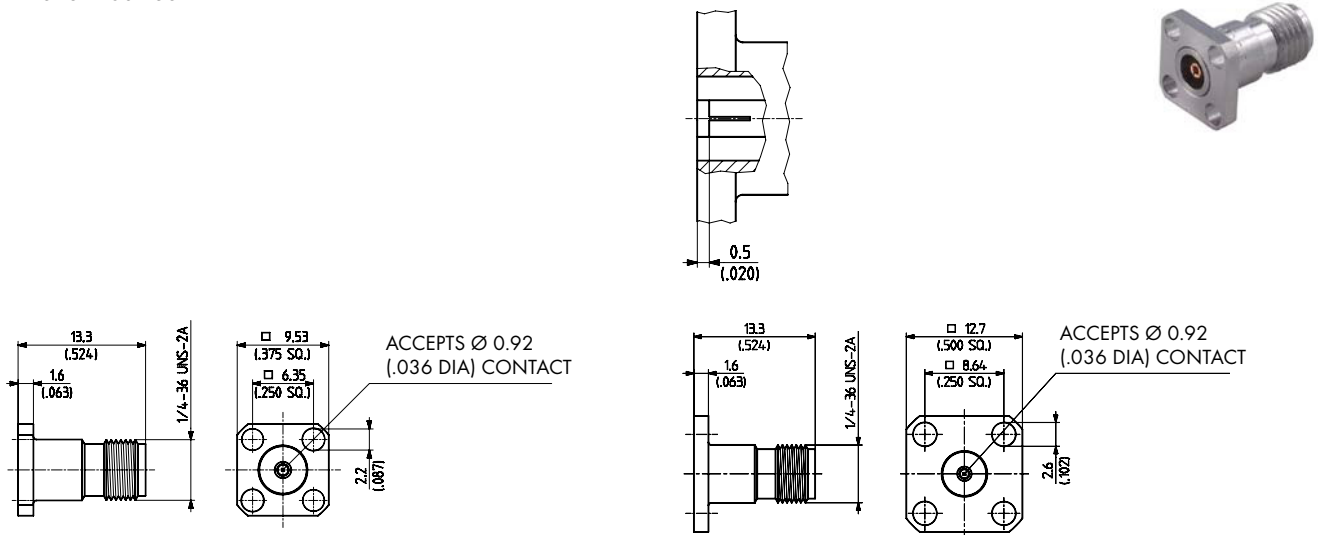
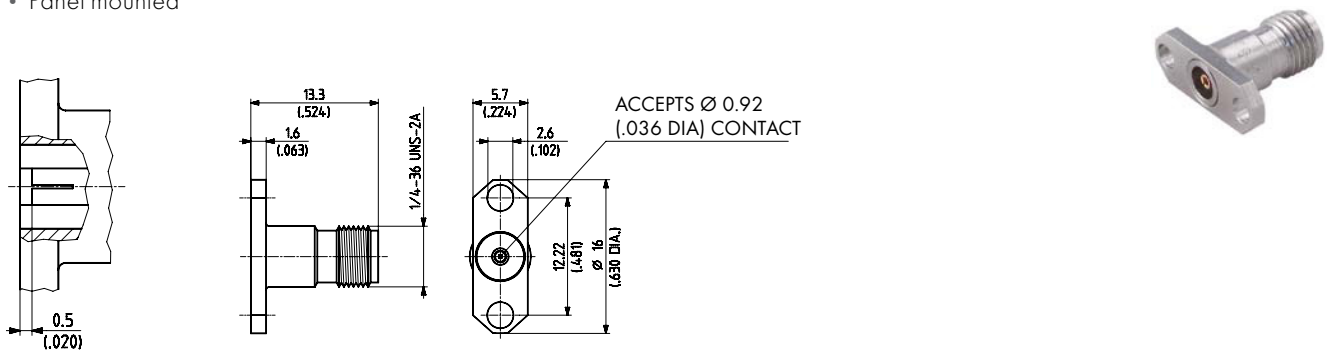


Fig. 1

Fig. 2

HUBER+SUHNER type	Item no.	Packaging	Flange type	Fig.
23_PC35-50-0-51/199_UE	22644918	single	square	1
23_PC35-50-0-53/199_UE	22644910			2

- Panel mounted



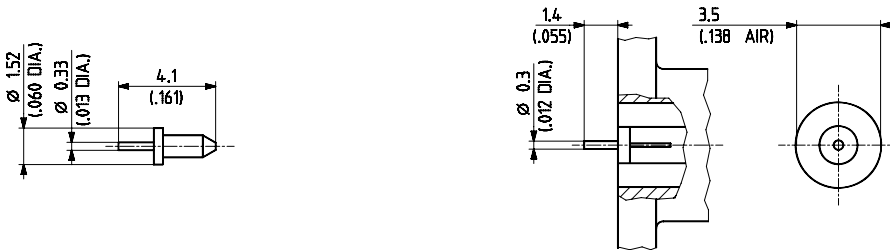
HUBER+SUHNER type	Item no.	Packaging	Flange type
23_PC35-50-0-54/199_UE	22644911	single	2-hole

Series PC 3.5 – transition pins

Transition pins

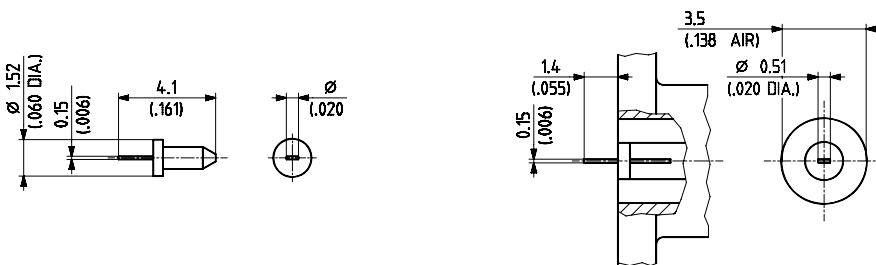
for PC 3.5 connectors with interchangeable contact pins

Pin contact



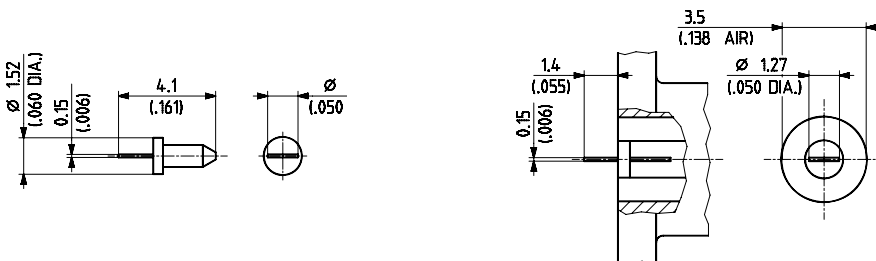
HUBER+SUHNER type	Item no.	Packaging	Plating
73_Z0-0-168	22644927	10 pins	gold

Tab contact



HUBER+SUHNER type	Item no.	Packaging	Plating
73_Z0-0-169	22644931	10 pins	gold

Tab contact



HUBER+SUHNER type	Item no.	Packaging	Plating
73_Z0-0-170	22644932	10 pins	gold