

Series PC 1.85 – precision subminiature connectors

Description

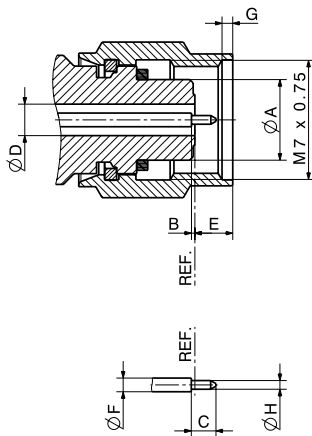
HUBER+SUHNER PC 1.85 connectors are precision connectors for use in microwave applications up to 65 GHz. The connectors features best electrical performance, excellent mechanical stability as well as extreme reliability. They are particularly well suited for semi-rigid, semi-flexible and flexible microwave cables. PC 1.85 is intermateable with PC 2.4.

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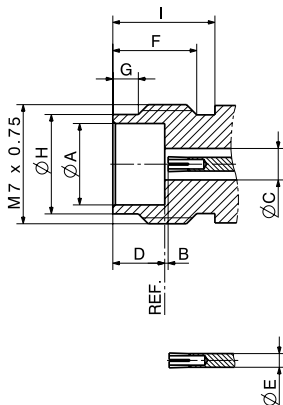
Interface dimensions (mm/inches)

Plug (male)



	Plug		Jack	
	min.	max.	min.	max.
A	4.725/0.186	4.75/0.187	4.77/0.1878	4.795/0.1888
B	0.00/0.00	0.08/0.003	0.00/0.00	0.08/0.003
C	1.34/0.053	1.44/0.057	1.84/0.07233	1.86/0.07333
D	1.838/0.07233	1.862/0.07333	3.00/0.118	3.10/0.122
E	1.85/0.073	2.45/0.096	0.791/0.0311	0.816/0.0321
F	0.791/0.0311	0.816/0.0321	4.80/0.189	5.06/0.199
G	0.5/0.02	0.76/0.03	1.37/0.054	1.63/0.064
H	0.498/0.0196	0.523/0.0206	5.79/0.228	5.89/0.232
I			6.00/0.236	

Jack (female)



Interface dimensions conformable to the standards:
International: IEC 60169-23

Series PC 1.85 – technical data

Electrical data	Requirements
Impedance	50 Ω
Frequency range	DC to 65 GHz
Dielectric withstanding voltage (at sea level)	500 V rms, 50 Hz
Working voltage (at sea level)	150 V rms, 50 Hz
Insulation resistance	$\geq 5 \cdot 10^3 \text{ M}\Omega$
Contact resistance <ul style="list-style-type: none"> • Centre contact • Outer contact 	$\leq 4 \text{ m}\Omega$ $\leq 2.5 \text{ m}\Omega$
Return loss (typical values cable assemblies) <ul style="list-style-type: none"> • MULTIFLEX 86 HE • Semi-rigid 86 (SR_86_LA) • SUCOFORM 86 	$\leq 16 \text{ dB}$ up to 65 GHz $\leq 15 \text{ dB}$ up to 65 GHz $\leq 15 \text{ dB}$ up to 65 GHz

Mechanical data	Requirements
Coupling nut torque <ul style="list-style-type: none"> • Recommended • Proof torque 	$0.8 - 1.1 \text{ Nm} / 7.1 - 9.7 \text{ in. lbs}$ $1.65 \text{ Nm} / 14.6 \text{ in lbs}$
Contact captivation	$\geq 20 \text{ N} / 4.5 \text{ lbs}$
Durability (matings)	≥ 500

Environmental data	Test conditions
Temperature range	$-55 \text{ to } +155 \text{ }^\circ\text{C} / -67 \text{ to } +311 \text{ }^\circ\text{F}$
Thermal shock	IEC 60068-2-14
Damp heat steady state	IEC 60068-2-78
Vibration	IEC 60068-2-6
Shock	IEC 60068-2-27

Material data		
Connector part	Material	Plating
Body/nut	stainless steel	
Cable entry	BZ4	SUCOPRO®/gold plating
Centre contact	copper beryllium alloy	SUCOPRO®/gold plating
Support bead	LCP	
Gaskets	silicone rubber	

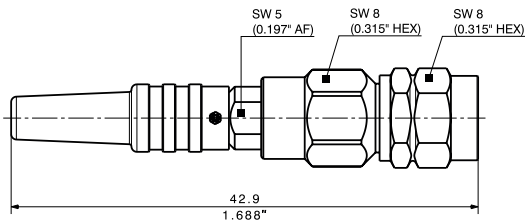
The products are designed and guaranteed to pass the above mentioned test procedures. Any additional or different requirement arising from specific applications or environmental conditions which is not covered by these test procedures is subject to request.

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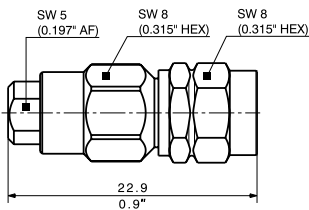
Straight cable plugs (male)

For semi-rigid, SUCOFORM and MULTIFLEX cables

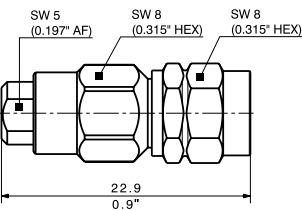
- Cable entry soldered
- Centre contact plugged-in



HUBER+SUHNER type	Item no.	Cable group (example)	Packaging	Assembly instruction
11_PC185-50-2-4/19_NE	84144282	Y11 (MF_86_HE)	single	0000373606



HUBER+SUHNER type	Item no.	Cable group (example)	Packaging	Assembly instruction
11_PC185-50-2-5/19_NE	84152948	U99 (SR_86_LA)	single	0000373655



HUBER+SUHNER type	Item no.	Cable group (example)	Packaging	Assembly instruction
11_PC185-50-2-6/19_NE	85001960	Y16 (SM_86)	single	0000388588

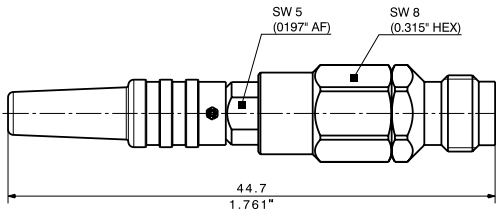
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Straight cable jacks (female)

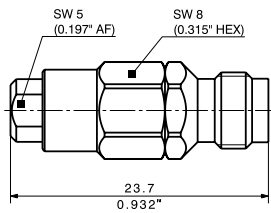
For semi-rigid, SUCOFORM and MULTIFLEX cables

- Cable entry soldered
- Centre contact plugged-in

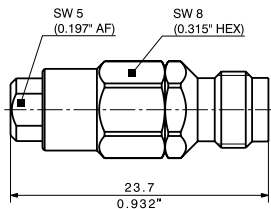
PC 1.85



HUBER+SUHNER type	Item no.	Cable group (example)	Packaging	Assembly instruction
21_PC185-50-2-4/19_NE	84144175	Y11 (MF_86_HE)	single	0000397321



HUBER+SUHNER type	Item no.	Cable group (example)	Packaging	Assembly instruction
21_PC185-50-2-5/19_NE	85001993	U99 (SR_86_LA)	single	0000397354



HUBER+SUHNER type	Item no.	Cable group (example)	Packaging	Assembly instruction
21_PC185-50-2-6/19_NE	85002004	Y16 (SM_86)	single	0000397358