



# SERIES MCX 75 Ω MICRO MINIATURE CONNECTORS

## DESCRIPTION

HUBER+SUHNER MCX 75 Ω connectors are derived from the MCX 50 Ω series but have a characteristic impedance of 75 Ω. They offer outstanding electrical properties up to 6 GHz and allow the transmission of digital signals with high bit rates.

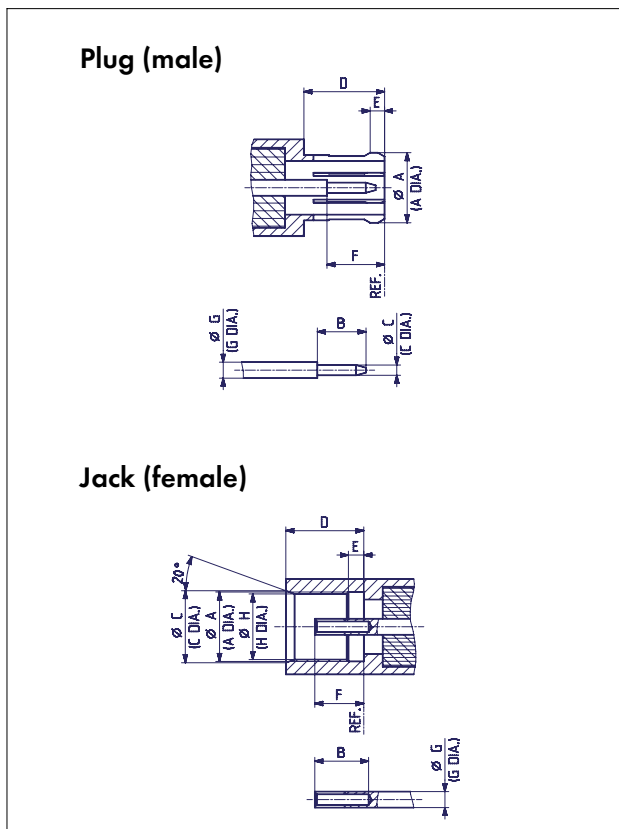
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MCX 75

## INTERFACE DIMENSIONS



## INTERFACE DIMENSIONS (MM / INCHES)

	Plug		Jack	
	min.	max.	min.	max.
A	3.72/.146*	3.80/.150*	3.60/.142	3.70/.146
B	2.49/.098	2.59/.102	2.80/.110	–
C	0.48/.019	0.53/.021	3.75/.148	3.85/.152
D	4.15/.163	–	4.00/.157	4.12/.162
E	0.70/.028	0.75/.030	0.75/.030	0.85/.033
F	2.80/.110	3.20/.126	2.30/.091	2.80/.110
G	0.83/.033 nom.		0.83/.033 nom.	
H			3.42/.135	3.48/.137

\* prior to slotting

### Interface dimensions conformable to the Standards:

Intermateable with MCX 50 Ω connectors acc. to CECC 22220.

**IP rating (interface, mated) IP50**

## TECHNICAL DATA

ELECTRICAL DATA	TEST REQUIREMENTS
Impedance	75 $\Omega$
Frequency range	DC ... 6 GHz
Dielectric withstanding voltage (at sea level)	$\geq$ 500 V rms, 50 Hz (depending on cable)
Working voltage (at sea level) - unmated	$\geq$ 170 V rms, 50 Hz (depending on cable)
Working voltage (at 21 000 m / 70 000 ft.) - unmated	$\geq$ 45 V rms, 50 Hz (depending on cable)
Insulation resistance	$\geq$ 10 <sup>3</sup> M $\Omega$
Contact resistance - centre contact - outer contact	$\leq$ 5.0 m $\Omega$ $\leq$ 2.5 m $\Omega$

MECHANICAL DATA	REQUIREMENTS
Engagement force	$\leq$ 25 N / 5.6 lbs
Disengagement force	8 N ... 20 N / 1.8 lbs ... 4.5 lbs
Contact captivation	$\geq$ 10 N / 2.3 lbs
Cable retention force <sup>1)</sup>	see pages 28 - 34
Durability (matings)	$\geq$ 500

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

ENVIRONMENTAL DATA	TEST CONDITIONS
Temperature range	- 65° C ... + 165° C / - 85°F ... + 329 °F
Climatic category	IEC → 55 / 155 / 21
Thermal shock	MIL-STD-202, Method 107, Condition F
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

MATERIAL DATA		
CONNECTOR PARTS	MATERIAL	PLATING
Pin contacts	brass	SUCOPRO / gold
Body	brass	SUCOPRO / SUCOPLATE <sup>®</sup>
Socket contacts	copper-beryllium alloy	SUCOPRO/gold
Outer contacts (resilient)	copper-beryllium alloy	SUCOPRO/gold
Crimp ferrules	copper	SUCOPLATE <sup>®</sup> / SUCOPRO
Insulators	PTFE or PFA	

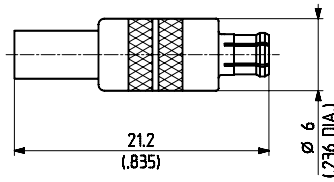
Some connectors may have a specification that differs from the above mentioned data.

**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.**

## CABLE CONNECTORS

### Straight cable plugs (male)

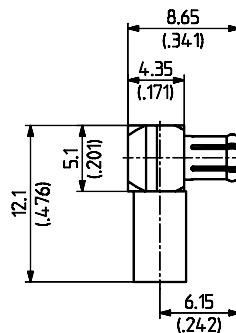
- > HUBER+SUHNER® full crimp
- > taper sleeves see page 406



HUBER+SUHNER type	Item no.	Cable group (example)	Packaging	Assembly instruction	Crimp insert
11_MCX-75-2-1/113_NE	22646946	U5 (RG 187 A/U)	single	9196	1 A
11_MCX-75-2-6/113_NE	22650698	R8 (K 02253 D-02)	single	9196	1 A

### Right angle cable plugs (male)

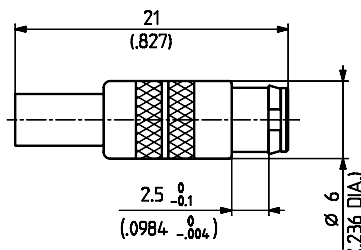
- > cable entry crimp
- > centre contact soldered
- > taper sleeves see page 406



HUBER+SUHNER type	Item no.	Cable group (example)	Packaging	Assembly instruction	Crimp insert
16_MCX-75-2-5/133_NH	23008072	U5 (RG 187 A/U)	bulk 100 pcs.	27383	A

### Straight bulkhead cable jacks (female)

- > HUBER+SUHNER® full crimp
- > "snap-on" panel mounting
- > taper sleeves see page 406



HUBER+SUHNER type	Item no.	Cable group (example)	Packaging	Assembly Instruction/ Mounting Hole	Crimp insert
24_MCX-75-2-1/113_NE	22646948	U5 (RG 187 A/U)	single	9196/ML 82	1 A

# PCB CONNECTORS

## Straight PCB jacks (female)

> 2.54 mm / .100 in.

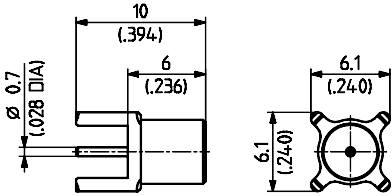


Fig. 1

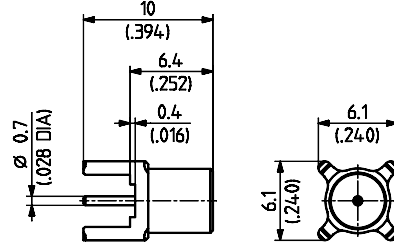


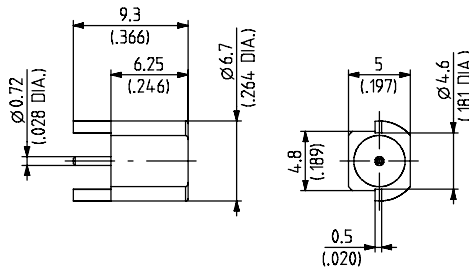
Fig. 2



HUBER+SUHNER type	Item no.	Packaging	Mounting hole	Notes	Fig.
82_MCX-75-0-4/111_NE	84023729	single	ML 15	without stand-off	1
82_MCX-75-0-4/111_NH	23004043	bulk 100 pcs.	ML 15	without stand-off	1
82_MCX-75-0-5/111_NH	23004046	bulk 100 pcs.	ML 15	with stand-off	2

> surface mount type SMT

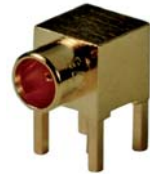
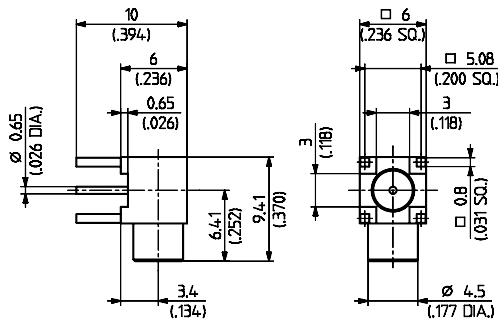
> edge mount



HUBER+SUHNER type	Item no.	Packaging	Notes
82_MCX-S75-0-2/111_NE	22651011	single	
82_MCX-S75-0-2/111_NH	84020046	bulk 100 pcs.	
82_MCX-S75-0-2/111_NM	84017665	Tape and Reel	

## Right angle PCB jacks (female)

> 2.54 mm / .100 in.



HUBER+SUHNER type	Item no.	Packaging	Mounting hole	Notes
85_MCX-75-0-1/111_NE	22649202	single	ML 15	
85_MCX-75-0-1/111_NH	22650766	bulk 100 pcs.	ML 15	