



# SERIES SMA, SUBMINIATURE CONNECTORS

## DESCRIPTION

HUBER+SUHNER SMA connectors are precision connectors for microwave applications up to 18 GHz. They distinguish themselves through their high mechanical strength, high durability, high reliability and low VSWR.

SMA launchers are the preferred connection element for varied microwave circuits. There is a huge variety of applications for HUBER+SUHNER SMA connectors, such as mobile communication, test & measurement, instruments, avionics, etc.

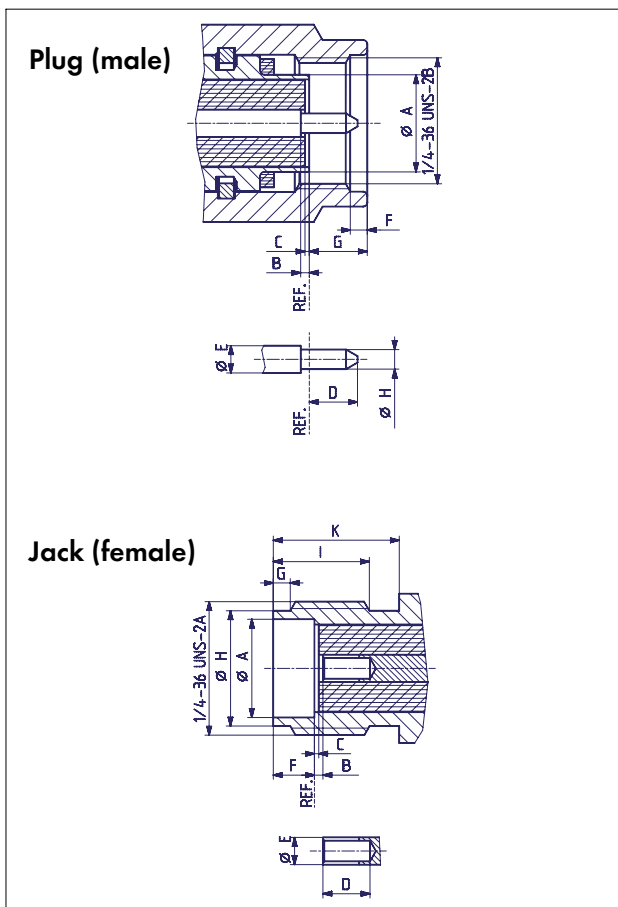
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SMA

## INTERFACE DIMENSIONS



## INTERFACE DIMENSIONS (MM / INCHES)

	Plug		Jack	
	min.	max.	min.	max.
A	–	4.59/.181	4.59/.181	–
B	0.00/.000	0.25/.010	0.00/.000	0.25/.010
C	0.00/.000	0.25/.010	0.00/.000	0.25/.010
D	–	2.54/.100	2.67/.105	–
E	1.24/.049	1.29/.051	1.24/.049	1.29/.051
F	0.38/.015	1.14/.045	1.88/.074	1.98/.078
G	–	3.43/.135	0.38/.015	1.14/.045
H	0.90/.036	0.94/.037	5.28/.208	5.49/.216
I	–	–	4.32/.170	–
K	–	–	5.54/.218	–

IP rating (interface, mated) IP68

**Interface dimensions conformable to the Standards:**

International: **IEC 60169-15**  
 Europe: **CECC 22110**  
 USA: **MIL-C-39012, SMA**  
**Interface MIL-STD-348a/310**

GB: **BS 9210 N 0006**  
 F: **NF-C-93563 (KMR)**

**TECHNICAL DATA**

<b>ELECTRICAL DATA</b>	<b>MIL-C-39012</b>				
Cable type		semi-rigid		flexible	
Cable dielectric diameter (mm/in.)		1.5 / .066	3 / .117	1.5 / .066	3 / .117
Impedance		50 Ω			
Frequency range for interface		DC ... 18 GHz			
VSWR (typical value)		see table below			
RF-leakage measured at 3 GHz (f in GHz)	3.26	≥ 100 dB-f		≥ 60 dB	
Dielectric withstanding voltage (at sea level, in V rms, 50 Hz)	3.17	1000	1500	750	1000
Working voltage (at sea level, in V rms, 50 Hz)		335	500	250	335
Corona extinction voltage (at 21 000 m/70 000 ft., in V rms, 50 Hz)	3.22	250	375	190	250
Working voltage (at 21 000 m/70 000 ft., in V rms, 50 Hz)		85	125	65	85
RF withstanding voltage at 5 MHz (V rms)	3.23	670	1000	500	670
Insulation resistance	3.11	≥ 5·10 <sup>3</sup> MΩ			
Contact resistance - centre contact - outer contact	3.16	≤ 3 mΩ ≤ 2.5 mΩ			

<b>TYPICAL VSWR</b>	<b>FREQUENCY RANGE</b>					<b>CABLE GROUP</b>
	<b>1 GHz</b>	<b>2.5 GHz</b>	<b>5 GHz</b>	<b>12.4 GHz</b>	<b>18 GHz</b>	
straight connectors	1.03	1.03	1.03	1.07	1.08	Y3, Y11
	1.03	1.03	1.04	1.07	1.15	Y5, Y12
	1.05	1.07	1.08			U2, U4
	1.04	1.05	1.07			U7, U9
right angle connectors	1.03	1.05	1.10	1.25		Y3, Y11
	1.03	1.05	1.08	1.17		Y5, Y12
	1.05	1.07	1.11			U2, U4
	1.03	1.05	1.07			U7, U9

MECHANICAL DATA	MIL-C-39012	
Recommended coupling nut torque		standard: 0.8 Nm ... 1.1 Nm / 7.1 in. lbs. ... 9.7 in. lbs brass: 0.45 Nm / 4.0 in. lbs
Coupling nut retention force	3.25	≥ 270 N / 60.7 lbs
Contact captivation - axial	3.12	≥ 27 N / 6.1 lbs
Cable retention force <sup>1)</sup>		see pages 28 - 34
Durability (matings)		≤ 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 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, outer contacts	copper-beryllium alloy stainless steel brass spring bronze	gold passivated SUCOPLATE <sup>®</sup> , gold gold
Pin contacts	copper-beryllium alloy, brass	gold
Socket contacts	copper-beryllium alloy spring bronze	gold
Crimp ferrules	copper, brass	gold
Insulators	PTFE or PFA	
Gaskets	silicone rubber	

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

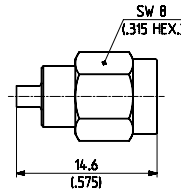
**The products are designed and guaranteed to pass the above mentioned test procedures. Any additional or different requirement arising from specific applications or environmental conditions which is not covered by these test procedures is subject to request.**

# CABLE CONNECTORS

## Straight cable plugs (male)

### > for semi-rigid cables

- > with pin and insulator
- > cable entry soldered
- > centre contact soldered
- > compound 74\_Z-0-116 needed (see page 398)



HUBER+SUHNER type	Item no.	Cable group (example)	Packaging	Assembly instruction	Plating body
11_SMA-50-1-1/111_NE	22642387	Y1 (EZ 34)	single	9118	gold
11_SMA-50-1-2/111_NE	22642388	Y2 (EZ 47)	single	9119	gold

### > for semi-rigid cables

- > with pin and insulator
- > cable entry soldered
- > centre contact soldered

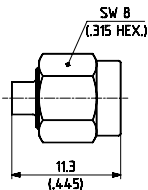


Fig. 1

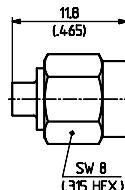


Fig. 2



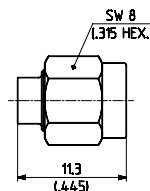
HUBER+SUHNER type	Item no.	Cable group (example)	Packaging	Assembly instruction	Plating body	Fig.
11_SMA-50-2-15/111_NH	22645898	Y3, Y11 (EZ 86)	bulk 100 pcs.	9056	gold	1
11_SMA-50-2-29/119_NH	22660366	Y3, Y11 (EZ 86)	bulk 100 pcs.	27334	stainless steel <sup>2)</sup>	2 <sup>1)</sup>
11_SMA-50-2-65/119_NH	22645366	Y3, Y11 (EZ 86)	bulk 100 pcs.	9056	stainless steel <sup>2)</sup>	1

1) centre contact plugged-in

2) cable entry CuBe/gold

### > for semi-rigid cables

- > without pin and insulator
- > cable entry soldered

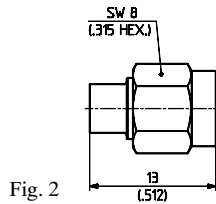
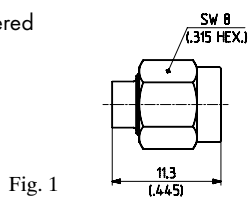


HUBER+SUHNER type	Item no.	Cable group (example)	Packaging	Assembly instruction	Plating body	Notes
11_SMA-50-3-14/-11_NH	22644467	Y5 (EZ 141)	bulk 100 pcs.	9055	gold	26.5 GHz
11_SMA-50-3-64/-19_NH	22649224	Y5 (EZ 141)	bulk 100 pcs.	9055	stainless steel <sup>2)</sup>	26.5 GHz

2) cable entry CuBe/gold

☒ centre contact NOT captivated

- > for semi-rigid cables
- > with pin and insulator
- > cable entry soldered
- > centre contact soldered

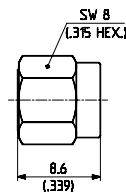


HUBER+SUHNER type	Item no.	Cable group (example)	Packaging	Assembly instruction	Plating body	Fig.
11_SMA-50-3-15/111_NH	22651601	Y5, Y12 (EZ 141)	bulk 100 pcs.	9056	gold	1
11_SMA-50-3-65/119_NH	22646570	Y5, Y12 (EZ 141)	bulk 100 pcs.	9056	stainless steel <sup>2)</sup>	1
11_SMA-50-3-39/111_YH	23026120	Y5, Y12 (EZ 141)	bulk 100 pcs.	150012	SUCOPRO	2 <sup>1)</sup>

1) centre contact plugged-in

2) cable entry CuBe/gold

- > for semi-rigid cables
- > without pin and insulator
- > cable entry soldered
- > short version

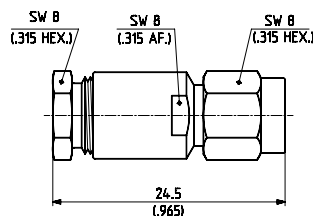


HUBER+SUHNER type	Item no.	Cable group (example)	Packaging	Assembly instruction	Plating body	Notes
11_SMA-50-3-16/-11_NH	22644470	Y5 (EZ 141)	bulk 100 pcs.	9055	gold	26.5 GHz
11_SMA-50-3-42/-33_NH	22646128	Y5 (EZ 141)	bulk 100 pcs.	9055	SUCOPLATE® <sup>1)</sup>	26.5 GHz
11_SMA-50-3-66/-19_NH	22645207	Y5 (EZ 141)	bulk 100 pcs.	9055	stainless steel <sup>2)</sup>	26.5 GHz

1) use torque wrench 74\_Z-0-79

2) cable entry CuBe/gold

- > for flexible cables
- > cable entry clamp
- > centre contact soldered

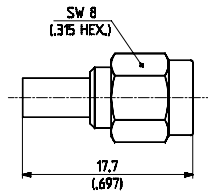


HUBER+SUHNER type	Item no.	Cable group (example)	Packaging	Assembly instruction	Plating body
11_SMA-50-3-7/111_NE	22640050	U7 (RG 58 C/U)	single	3071	gold
11_SMA-50-3-8/111_NH	22648630	U10 (RG 223/U)	bulk 100 pcs.	3071	gold
11_SMA-50-3-10/111_NE	22640053	U10 (RG 223/U)	single	3071	gold

☒ centre contact NOT captivated

> for flexible cables

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



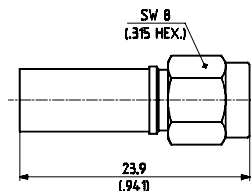
HUBER+SUHNER type	Item no.	Cable group (example)	Packaging	Assembly instruction	Plating body	Crimp insert
11_SMA-50-1-4/111_NE	22645871	U1 (RG 178 B/U)	single	27061	gold	A
11_SMA-50-2-5/111_NH	22646312	U2 (RG 316/U)	bulk 100 pcs.	27266	gold	A
11_SMA-50-2-6/111_NH	22650740	U4 (K 02252 D)	bulk 100 pcs.	27266	gold	A
11_SMA-50-2-27/111_NH	22652923	U2 (RG 316/U)	bulk 100 pcs.	27164	gold	1 A <sup>1)</sup>
11_SMA-50-2-41/133_NH	22652160	U4 (K 02252 D)	bulk 100 pcs.	3069	SUCOPLATE <sup>®2)</sup>	A
11_SMA-50-2-42/133_NH	22648783	U2 (RG 316/U)	bulk 100 pcs.	27266	SUCOPLATE <sup>®2)</sup>	A
11_SMA-50-2-55/199_NE	22641377	U2 (RG 316/U)	single	3069	stainless steel	A
11_SMA-50-2-56/199_NH	22651486	U4 (K 02252 D)	bulk 100 pcs.	3069	stainless steel	A

1) HUBER+SUHNER<sup>®</sup> full crimp

2) use torque wrench 74\_Z-0-79

> for flexible cables

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

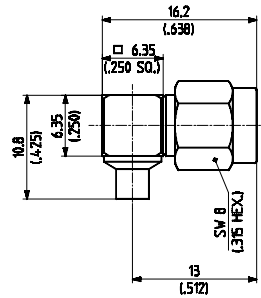


HUBER+SUHNER type	Item no.	Cable group (example)	Packaging	Assembly instruction	Plating body	Crimp insert
11_SMA-50-3-5/111_NE	22640048	U7 (RG 58 C/U)	single	3069	gold	B
11_SMA-50-3-6/111_NH	22650739	U9, 11 (RG 400/U)	bulk 100 pcs.	3069	gold	B
11_SMA-50-3-45/133_NH	22645987	U7 (RG 58 C/U)	bulk 100 pcs.	3069	SUCOPLATE <sup>®1)</sup>	B
11_SMA-50-3-46/133_NH	22651819	U9, 11 (RG 400/U)	bulk 100 pcs.	3069	SUCOPLATE <sup>®1)</sup>	B
11_SMA-50-3-55/199_NE	22641371	U7 (RG 58 C/U)	single	3069	stainless steel	B
11_SMA-50-3-56/199_NH	22648300	U9, 11 (RG 400/U)	bulk 100 pcs.	3069	stainless steel	B

1) use torque wrench 74\_Z-0-79

## Right angle cable plugs (male)

- > for semi-rigid cables
- > cable entry soldered
- > centre contact soldered

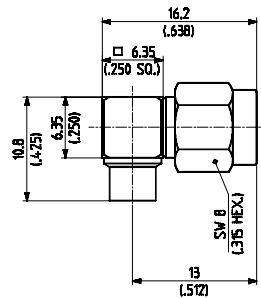


HUBER+SUHNER type	Item no.	Cable group (example)	Packaging	Assembly instruction	Plating body	Notes
16_SMA-50-2-43/133_NE	22641953	Y3, Y11 (EZ 86)	single	3068	SUCOPLATE® <sup>1)</sup>	
16_SMA-50-2-53/119_NH	22646639	Y3, Y11 (EZ 86)	bulk 100 pcs.	3068	stainless steel <sup>2)</sup>	
16_SMA-50-2-103/111_NH	22652924	Y3, Y11 (EZ 86)	bulk 100 pcs.	3068	gold	

1) use torque wrench 74\_Z-0-0-79

2) cable entry CuBe/gold

- > for semi-rigid cables
- > cable entry soldered
- > centre contact soldered

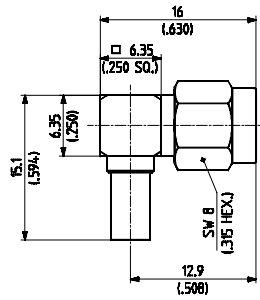


HUBER+SUHNER type	Item no.	Cable group (example)	Packaging	Assembly instruction	Plating body	Notes
16_SMA-50-3-3/111_NH	22646569	Y5, Y12 (EZ 141)	bulk 100 pcs.	3068	gold	
16_SMA-50-3-43/133_NE	22642241	Y5, Y12 (EZ 141)	single	3070	SUCOPLATE® <sup>1)</sup>	

1) use torque wrench 74\_Z-0-0-79

> for flexible cables

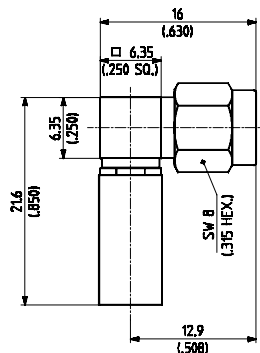
- > cable entry crimp
- > centre contact soldered
- > taper sleeves see page 406



HUBER+SUHNER type	Item no.	Cable group (example)	Packaging	Assembly instruction	Plating body	Crimp insert
16_SMA-50-1-1/111_NH	22660358	U1 (RG 178 B/U)	bulk 100 pcs.	3070	gold	A
16_SMA-50-2-105/111_NH	22651456	U2 (RG 316/U)	bulk 100 pcs.	3070	gold	A
16_SMA-50-2-106/111_NH	22651458	U4 (K 02252 D)	bulk 100 pcs.	3070	gold	A
16_SMA-50-2-141/133_NH	22651997	U4 (K 02252 D)	bulk 100 pcs.	3070	SUCOPLATE® <sup>1)</sup>	A
16_SMA-50-2-145/133_NH	22652929	U2 (RG 316/U)	bulk 100 pcs.	3070	SUCOPLATE® <sup>1)</sup>	A

> for flexible cables

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



HUBER+SUHNER type	Item no.	Cable group (example)	Packaging	Assembly instruction	Plating body	Crimp insert
16_SMA-50-3-105/111_NH	22651800	U7 (RG 58 C/U)	bulk 100 pcs.	3070	gold	B
16_SMA-50-3-106/111_NH	22650545	U9, 11 (RG 400/U)	bulk 100 pcs.	3070	gold	B
16_SMA-50-3-145/133_NE	22651584	U7 (RG 58 C/U)	single	3070	SUCOPLATE® <sup>1)</sup>	B
16_SMA-50-3-146/133_NE	22649909	U9, 11 (RG 400/U)	single	3070	SUCOPLATE® <sup>1)</sup>	B

1) use torque wrench 74\_Z0-0-79



## Straight cable jacks (female)

- > for semi-rigid cables
- > cable entry soldered
- > centre contact soldered

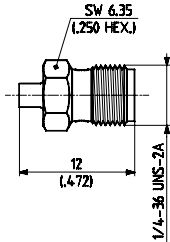


Fig. 1

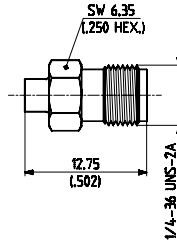


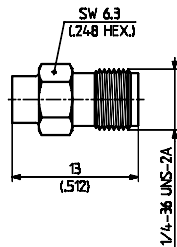
Fig. 2



HUBER+SUHNER type	Item no.	Cable group (example)	Packaging	Assembly instruction	Plating body	Fig.
21_SMA-50-1-1/111_NE	22642385	Y1 (EZ 34)	single	9118	gold	1
21_SMA-50-1-2/111_NE	22642386	Y2 (EZ 47)	single	9119	gold	1
21_SMA-50-2-15/111_NH ☒	22652141	Y3, Y11 (EZ 86)	bulk 100 pcs.	9057	gold	2

SMA

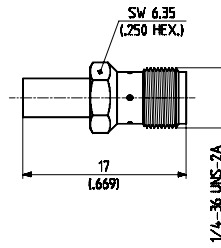
- > for semi-rigid cables
- > cable entry soldered
- > centre contact plugged-in



HUBER+SUHNER type	Item no.	Cable group (example)	Packaging	Assembly instruction	Plating body	Notes
21_SMA-50-3-47/111_YE	23025549	Y5 (EZ 141)	bulk 100 pcs.	150012	SUCOPRO	

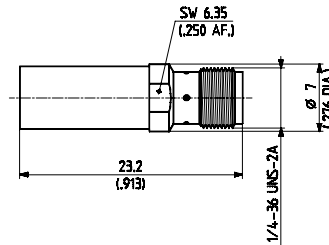
☒ centre contact NOT captivated

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



HUBER+SUHNER type	Item no.	Cable group (example)	Packaging	Assembly instruction	Plating body	Crimp insert
21_SMA-50-2-5/111_NE	22640077	U2 (RG 316/U)	single	3069	gold	A
21_SMA-50-2-6/111_NH	22651818	U4 (K 02252 D)	bulk 100 pcs.	3069	gold	A

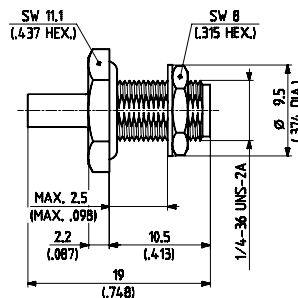
- > for flexible cables
- > cable entry crimp
- > centre contact soldered
- > taper sleeves see page 406



HUBER+SUHNER type	Item no.	Cable group (example)	Packaging	Assembly instruction	Plating body	Crimp insert
21_SMA-50-3-5/111_NE	22640081	U7 (RG 58 C/U)	single	3069	gold	B
21_SMA-50-3-6/111_NE	22640082	U9, 11 (RG 400/U)	single	3069	gold	B

### Straight bulkhead cable jacks (female)

- > for semi-rigid cables
- > cable entry soldered
- > centre contact soldered
- > with panel seal
- > insulating washers see page 408

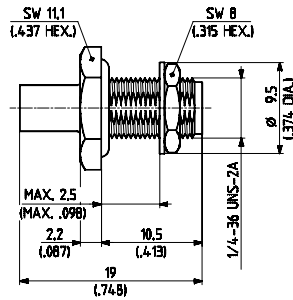


HUBER+SUHNER type	Item no.	Cable group (example)	Packaging	Assembly instruction	Plating body	Mounting hole
24_SMA-50-2-15/111_NH	22645490	Y3, Y11 (EZ 86)	bulk 100 pcs.	9057	gold	ML 35

☒ centre contact NOT captivated

> for semi-rigid cables

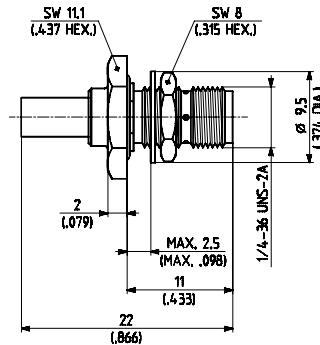
- > cable entry soldered
- > centre contact soldered
- > with panel seal
- > insulating washers see page 408



HUBER+SUHNER type	Item no.	Cable group (example)	Packaging	Assembly instruction	Plating body	Mounting hole
24_SMA-50-3-15/111_NH	22645259	Y5, Y12 (EZ 141)	bulk 100 pcs.	9057	gold	ML 35

> for flexible cables

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



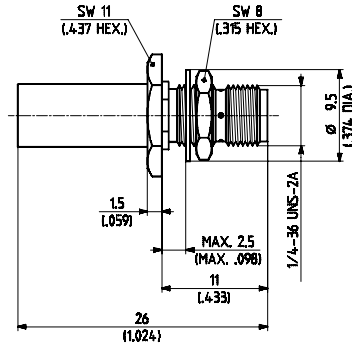
HUBER+SUHNER type	Item no.	Cable group (example)	Packaging	Assembly Instruction/ Mounting Hole	Plating body	Crimp insert
24_SMA-50-2-13/111_NH	22651719	U4 (K 02252 D)	bulk 100 pcs.	3069 / ML 20	gold	A
24_SMA-50-2-14/111_NH	22651747	U2 (RG 316/U)	bulk 100 pcs.	3069 / ML 20	gold	A
24_SMA-50-2-45/133_NH	22652352	U4 (K 02252 D)	bulk 100 pcs.	3069 / ML 20	SUCOPLATE® <sup>1)</sup>	A
24_SMA-50-2-45/133_UH	22648472	U4 (K 02252 D)	bulk 100 pcs.	3069 / ML 20	SUCOPLATE® <sup>1)</sup>	A
24_SMA-50-2-46/133_NH	22646565	U2 (RG 316/U)	bulk 100 pcs.	3069 / ML 20	SUCOPLATE® <sup>1)</sup>	A

1) use torque wrench 74\_Z-0-79

☒ centre contact NOT captivated

> for flexible cables

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



HUBER+SUHNER type	Item no.	Cable group (example)	Packaging	Assembly Instruction/ Mounting Hole	Plating body	Crimp insert
24_SMA-50-3-42/133_NE	22641358	U9 (RG 223/U)	single	3072 / ML 20	SUCOPLATE® <sup>1)</sup>	B

1) use torque wrench 74\_Z-0-0-79

### Straight panel cable jacks (female)

- > for semi-rigid cables
- > cable entry soldered
- > centre contact soldered

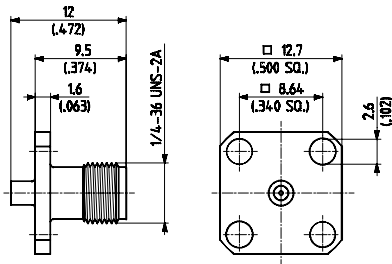


Fig. 1

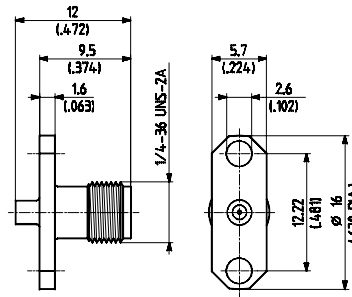


Fig. 2



HUBER+SUHNER type	Item no.	Cable group (example)	Packaging	Assembly instruction/ Mounting hole	Plating body	Fig.
25_SMA-50-1-2/111_NE	22642390	Y2 (EZ 47)	single	9119 / ML 19	gold	1
25_SMA-50-1-4/111_NE	22642391	Y2 (EZ 47)	single	9119	gold	2

- > for semi-rigid cables
- > cable entry soldered
- > centre contact soldered

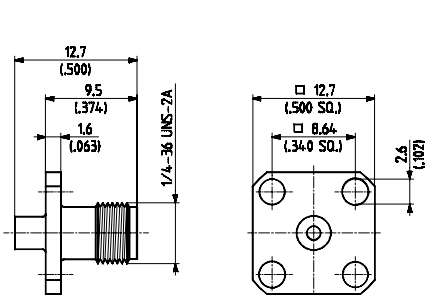


Fig. 1

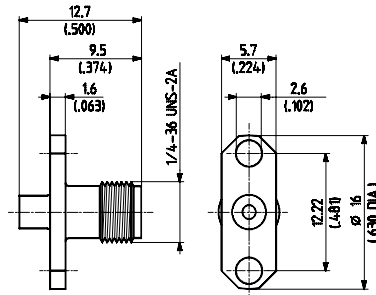


Fig. 2

HUBER+SUHNER type	Item no.	Cable group (example)	Packaging	Assembly instruction/ Mounting hole	Plating body	Fig.
25_SMA-50-2-15/111_NE	22544551	Y3, Y11 (EZ 86)	single	9057 / ML 19	gold	1
25_SMA-50-2-25/111_NE	22641493	Y3, Y11 (EZ 86)	single	9057	gold	2

- > for semi-rigid cables
- > cable entry soldered
- > centre contact soldered

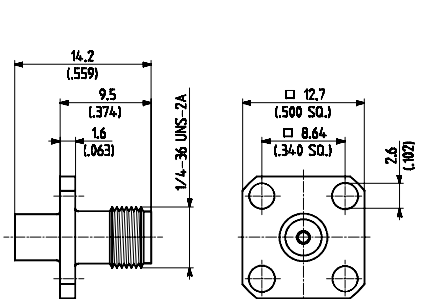


Fig. 1

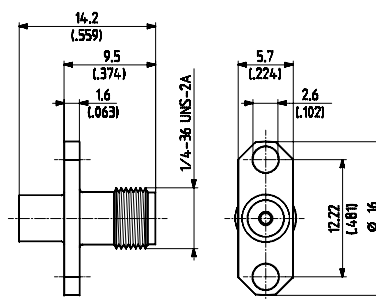


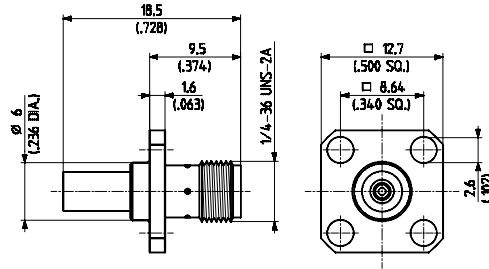
Fig. 2

HUBER+SUHNER type	Item no.	Cable group (example)	Packaging	Assembly instruction/ Mounting hole	Plating body	Fig.
25_SMA-50-3-15/111_NH	22644717	Y5, Y12 (EZ 141)	bulk 100 pcs.	9057 / ML 19	gold	1
25_SMA-50-3-25/111_NH	22646563	Y5, Y12 (EZ 141)	bulk 100 pcs.	9057	gold	2

☒ centre contact NOT captivated

> for flexible cables

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



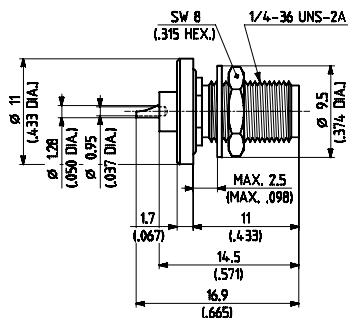
HUBER+SUHNER type	Item no.	Cable group (example)	Packaging	Assembly instruction/ Mounting hole	Plating body	Crimp insert
25_SMA-50-2-5/111_NH	22650755	U2 (RG 316/U)	bulk 100 pcs.	3072 / ML 19	gold	A
25_SMA-50-2-6/111_NE	22640113	U4 (K 02252 D)	single	3072 / ML 19	gold	A
25_SMA-50-2-46/133_NE	22642246	U4 (K 02252 D)	single	3072 / ML 19	SUCOPLATE® <sup>1)</sup>	A

1) use torque wrench 74\_Z-0-0-79

## RECEPTACLES WITH SOLDER END

### Receptacles, jacks (female)

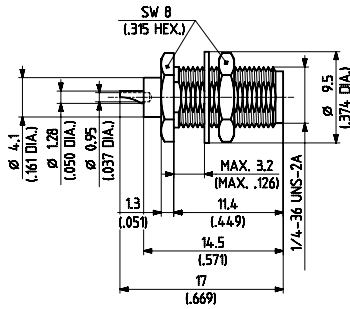
- > bulkhead mounted
- > with panel seal



HUBER+SUHNER type	Item no.	Packaging	Plating body	Mounting hole	Notes
22_SMA-50-0-1/111_NE	22640087	single	gold	ML 20	rear mounting

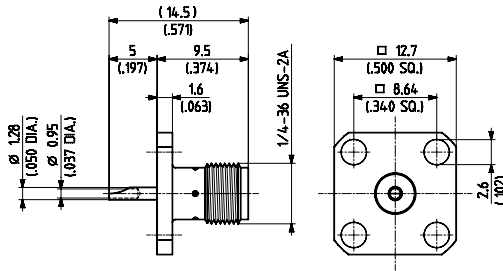
## Receptacles, jacks (female)

- > rear mounting
- > without panel seal
- > insulating washers see page 408



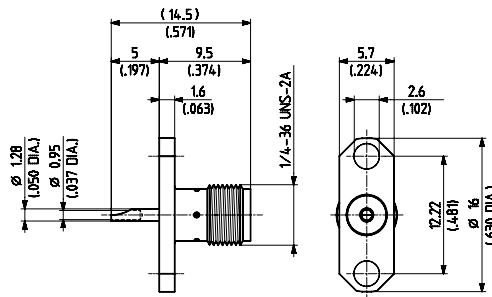
HUBER+SUHNER type	Item no.	Packaging	Plating body	Mounting hole	Notes
22_SMA-50-0-4/111_NH	22649418	bulk 100 pcs.	gold	ML 35	
22_SMA-50-0-44/133_NE	22643518	single	SUCOPLATE®	ML 35	use torque wrench 74_Z-0-79
22_SMA-50-0-203/111_NH	22652012	bulk 100 pcs.	gold	ML 35	

- > panel mounted



HUBER+SUHNER type	Item no.	Packaging	Plating body	Notes
23_SMA-50-0-1/111_NH	22651409	bulk 100 pcs.	gold	
23_SMA-50-0-44/133_NH	22652098	bulk 100 pcs.	SUCOPLATE®	use torque wrench 74_Z-0-79
23_SMA-50-0-51/199_NE	22543948	single	stainless steel	

- > panel mounted



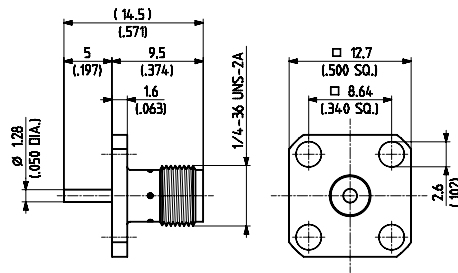
HUBER+SUHNER type	Item no.	Packaging	Plating body	Notes
23_SMA-50-0-11/111_NE	22640095	single	gold	
23_SMA-50-0-41/133_NH	22644383	bulk 100 pcs.	SUCOPLATE®	use torque wrench 74_Z-0-79
23_SMA-50-0-61/199_NE	22544796	single	stainless steel	





## Receptacles, jacks (female)

> panel mounted



HUBER+SUHNER type	Item no.	Packaging	Plating body	Notes
23_SMA-50-0-21/111_NE	22640101	single	gold	flush dielectric



SMA

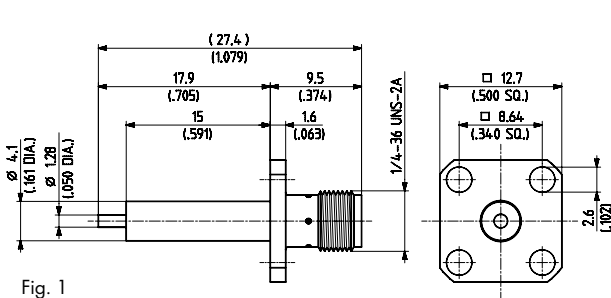


Fig. 1

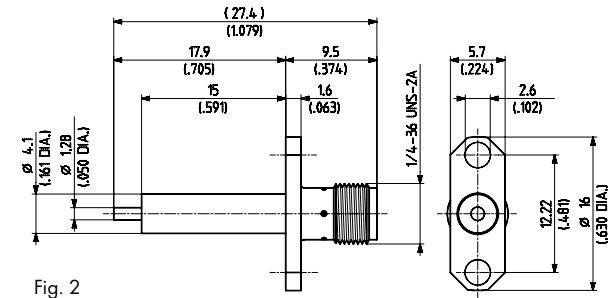


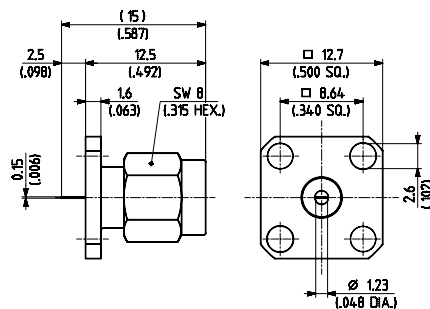
Fig. 2

HUBER+SUHNER type	Item no.	Packaging	Plating body	Notes	Fig.
23_SMA-50-0-3/111_NE	22640092	single	gold	extended dielectric	1
23_SMA-50-0-13/111_NH	22658873	bulk 100 pcs.	gold	extended dielectric	2
23_SMA-50-0-53/199_NE	22641394	single	stainless steel	extended dielectric	1

## STRIPLINE LAUNCHERS

### Panel launchers, male

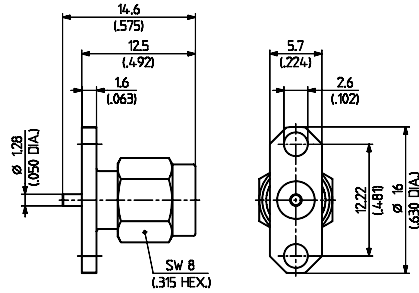
> tab contact



HUBER+SUHNER type	Item no.	Packaging	Plating body	Notes
13_SMA-50-0-2/111_NE	22640056	single	gold	flush dielectric

## Panel launchers, male

> tab contact

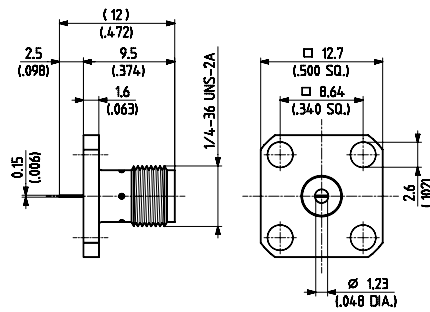


HUBER+SUHNER type	Item no.	Packaging	Plating body	Notes
13_SMA-50-0-141/133_NH	22649018	bulk 100 pcs.	SUCOPLATE® <sup>1)</sup>	flush dielectric

1) use torque wrench 74\_Z-0-0-79

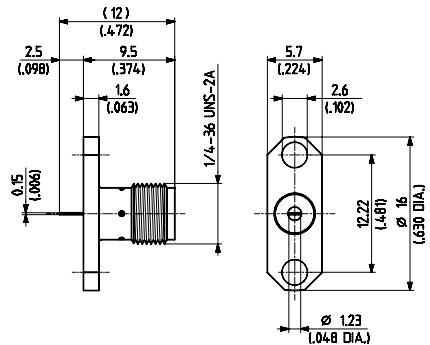
## Panel launchers, female

> tab contact



HUBER+SUHNER type	Item no.	Packaging	Plating body	Notes
23_SMA-50-0-2/111_NE	22640091	single	gold	flush dielectric
23_SMA-50-0-52/199_NE	22543487	single	stainless steel	flush dielectric

> tab contact

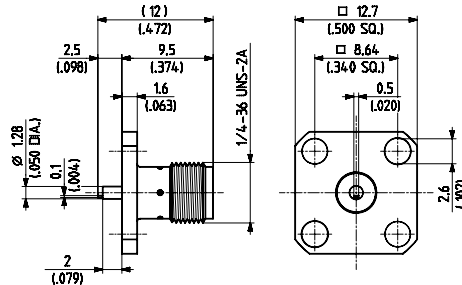


HUBER+SUHNER type	Item no.	Packaging	Plating body	Notes
23_SMA-50-0-12/111_NE	22640096	single	gold	flush dielectric
23_SMA-50-0-62/199_NE	22544779	single	stainless steel	flush dielectric

# MICROSTRIP LAUNCHERS

## Panel launchers, female

> tab contact, offset



HUBER+SUHNER type	Item no.	Packaging	Plating body	Notes
23_SMA-50-0-4/111_NE	22640093	single	gold	flush dielectric

SMA

## CONNECTORS WITH HERMETIC SEAL

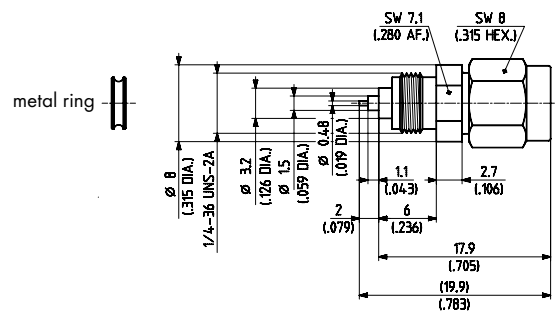
All hermetic seal SMA connectors use precision glass to metal seals, which are soldered into the connector body.

Caution: max. soldering temperature for hermetic seal SMA connectors is 250°C / 482 °F.

### Receptacle, male, hermetic seal

> "Spark Plug" with metal ring seal

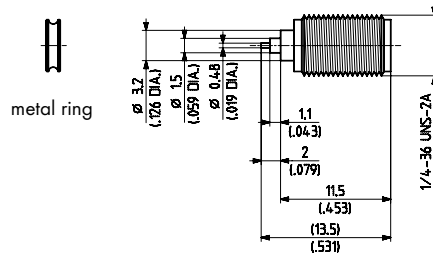
> RoHs compliant alternative on request



HUBER+SUHNER type	Item no.	Packaging	Plating body	Mounting hole	Notes
12_SMA-50-0-110/111_NE	22652315	single	gold	ML 42	pressure max. 200 N/cm <sup>2</sup> (290 psi)

## Receptacle, female, hermetic seal

- > "Spark Plug" with metal ring seal
- > RoHS compliant alternative on request



HUBER+SUHNER type	Item no.	Packaging	Plating body	Mounting hole	Notes
22_SMA-50-0-10/111_NE	22641291	single	gold	ML 42	pressure max. 200 N/cm <sup>2</sup> (290 psi)

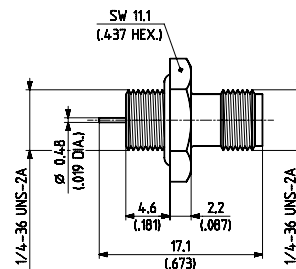
For type 12\_SMA-50-0-110 (see previous page) and 22\_SMA-50-0-10 (see above):

Use assembly tool 74\_Z-0-0-75 and torque wrench 74\_Z-0-0-80!

The specified torque of 200 Ncm (17.7 in. lbs) results in a leakage rate of 10<sup>-8</sup> Torr l/sec. (atm cc/s) maximum.

## Receptacles, jacks (female)

- > bulkhead mounted
- > with panel seal
- > RoHS compliant alternative on request



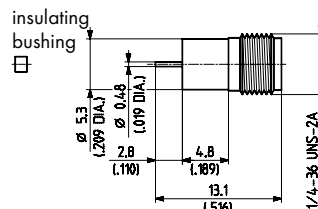
HUBER+SUHNER type	Item no.	Packaging	Plating body	Mounting hole	Notes
22_SMA-50-0-12/111_NY	22641293	75 pcs.	gold	ML 98	pressure max. 200 N/cm <sup>2</sup> (290 psi) <sup>1)</sup>

1) leak rate 10<sup>-6</sup> Torr l/sec.(atm cc/s) max.

tap drill 74\_Z-0-0-24

## Receptacles, female, hermetic seal

- > bulkhead mounted for direct soldering
- > supplied with separate insulating bushing
- > RoHS compliant alternative on request



HUBER+SUHNER type	Item no.	Packaging	Plating body	Mounting hole	Notes
22_SMA-50-0-15/111_NE	22544588	single	gold	ML 96	pressure max. 200 N/cm <sup>2</sup> (290 psi) <sup>1)</sup>

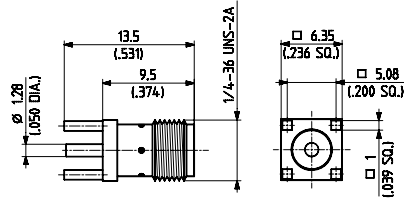
1) leak rate 10<sup>-8</sup> Torr l/sec.(atm cc/s) max.

soldering temperature 250 °C / 482 °F max.

## PCB CONNECTORS

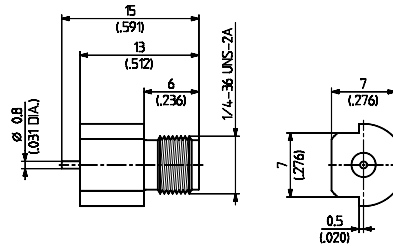
### Straight PCB jacks (female)

> without stand-off



HUBER+SUHNER type	Item no.	Packaging	Plating body	Mounting hole	Notes
82_SMA-50-0-1/111_NH	22644334	bulk 100 pcs.	gold	ML 41	

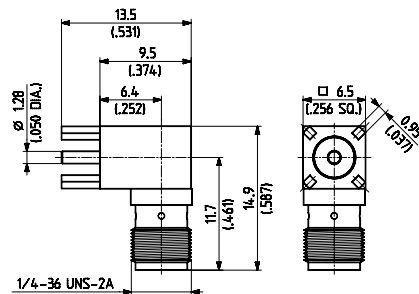
> edge mount



HUBER+SUHNER type	Item no.	Packaging	Plating body	Mounting hole	Notes
82_SMA-50-0-45/111_NE	22652330	single	gold	ML 132	

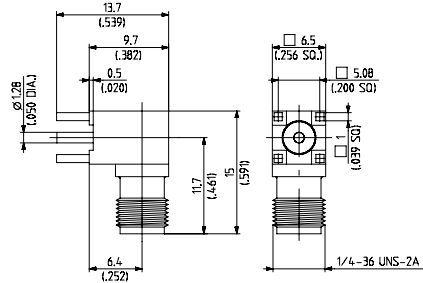
### Right angle PCB jacks (female)

> without stand-off



HUBER+SUHNER type	Item no.	Packaging	Plating body	Mounting hole	Notes
85_SMA-50-0-101/111_NH	22652140	bulk 100 pcs.	gold	ML 41	

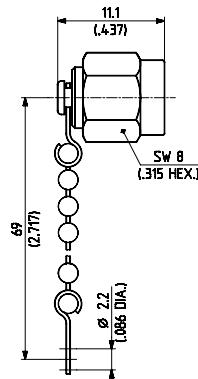
> with stand-off



HUBER+SUHNER type	Item no.	Packaging	Plating body	Mounting hole	Notes
85_SMA-50-0-144/111_YH	23000527	bulk 100 pcs.	SUCOPLATE®	ML 41	

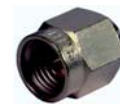
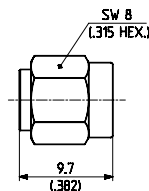
## PROTECTIVE CAPS AND SHORTS

Cap with chain for jacks



HUBER+SUHNER type	Item no.	Packaging	Plating body	Notes
62_SMA-0-0-1/-11_NE	22640159	single	gold	non-shorting, humidity sealed
62_SMA-0-0-51/-99_NE	22644252	single	stainless steel	non-shorting, humidity sealed

Shorting Caps



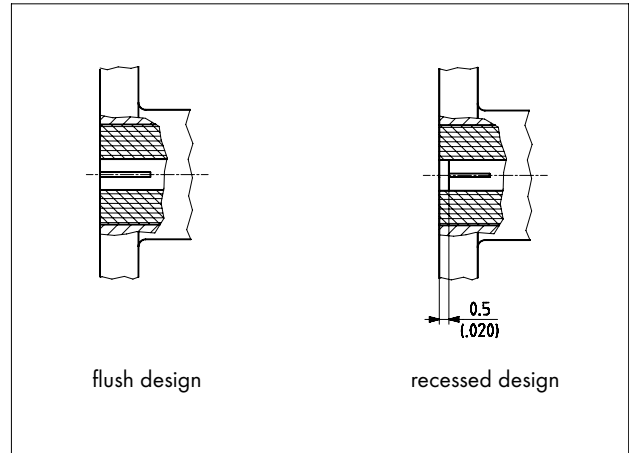
HUBER+SUHNER type	Item no.	Packaging	Plating body	Notes
64_SMA-0-0-1/111_NE	22640161	single	gold	SMA plug, humidity sealed

## SMA LAUNCHERS WITH TRANSITION PINS

SMA launchers have interchangeable transition pins and insulators. This design offers many advantages as:

- connector replacement without disturbing the electronic circuit
- improved mechanical performance
- greater design flexibility (mechanical and electrical)
- reduced inventory costs

The launchers accept transition pins with a diameter of 0.92 mm/.036 in. Connectors and pins have to be ordered separately. All parts conform to MIL C-83517. Connector housings are available with recessed or flush rear contact. The PTFE dielectric is always flush with the connector flange back.



## Tab contact

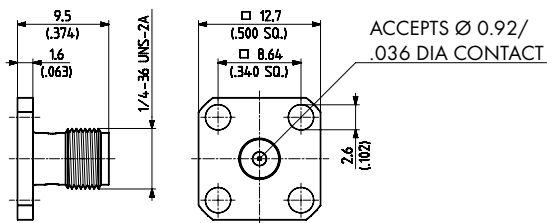


Fig. 1

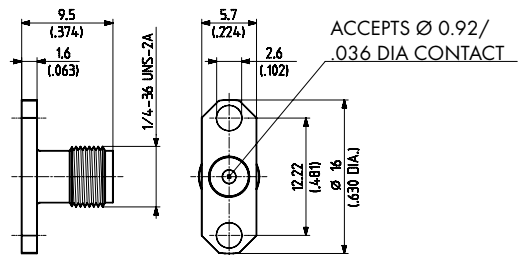
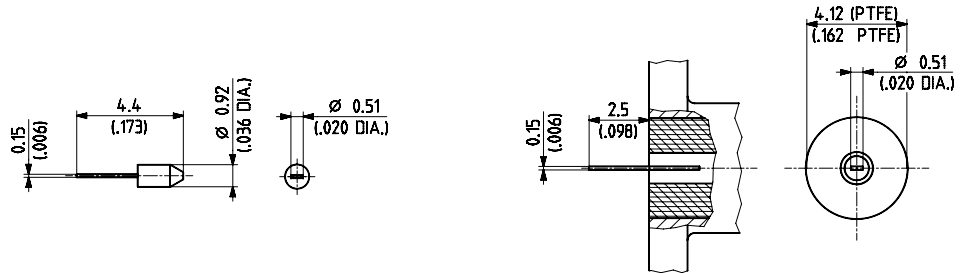


Fig. 2

HUBER+SUHNER type	Item no.	Packaging	Plating body	Fig.	Notes
23_SMA-0-165/199_NE	22644159	single	stainless steel	1	flush design
23_SMA-0-166/199_NE	22644160	single	stainless steel	2	flush design
23_SMA-0-167/199_NE	22644155	single	stainless steel	1	recessed design
23_SMA-0-168/199_NE	22644156	single	stainless steel	2	recessed design

## Transition pins for flush launchers

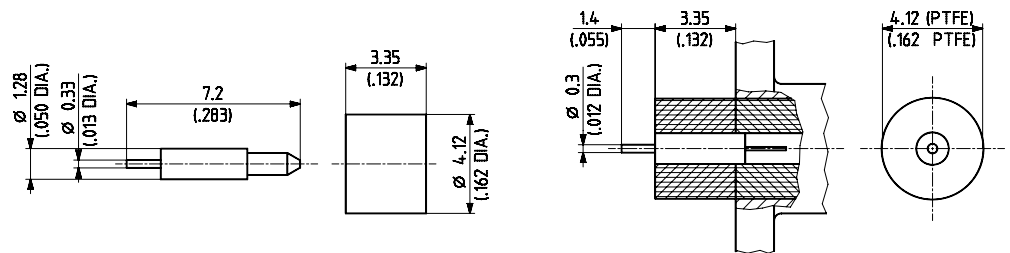
### Tab contact



HUBER+SUHNER type	Item no.	Packaging	Plating	Notes
73_Z-0-0-138/1-_UZ	22644145	10 pins	gold	

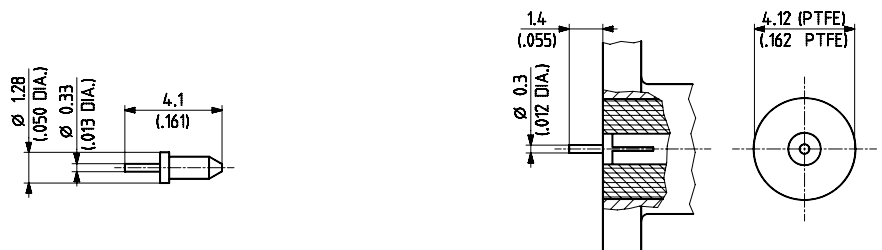
## Transition pins for recessed launchers

### Pin contact and insulator



HUBER+SUHNER type	Item no.	Packaging	Plating	Notes
73_Z-0-0-136/1-_UZ	22644151	10 pins and insulators	gold	

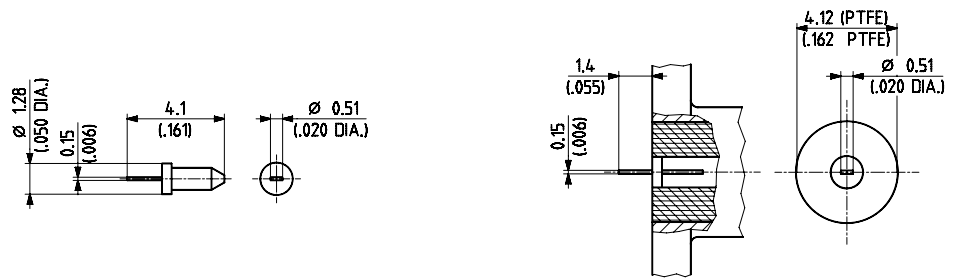
### Pin contact



HUBER+SUHNER type	Item no.	Packaging	Plating	Notes
73_Z-0-0-141/1-_UZ	22644147	10 pins	gold	

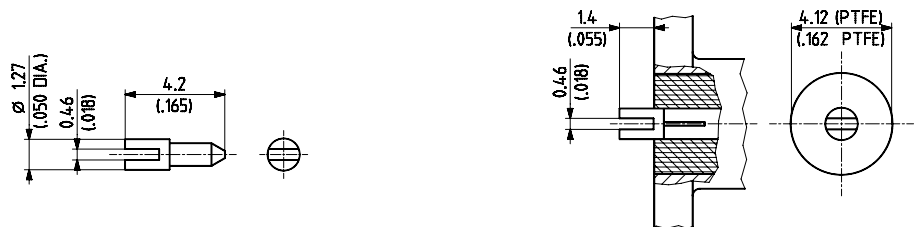


### Tab contact



HUBER+SUHNER type	Item no.	Packaging	Plating	Notes
73_Z-0-0-142/1-_UZ	22644148	10 pins	gold	

### Slotted contact



HUBER+SUHNER type	Item no.	Packaging	Plating	Notes
73_Z-0-0-151/1-_UZ	22644143	10 pins	gold	

SMA