

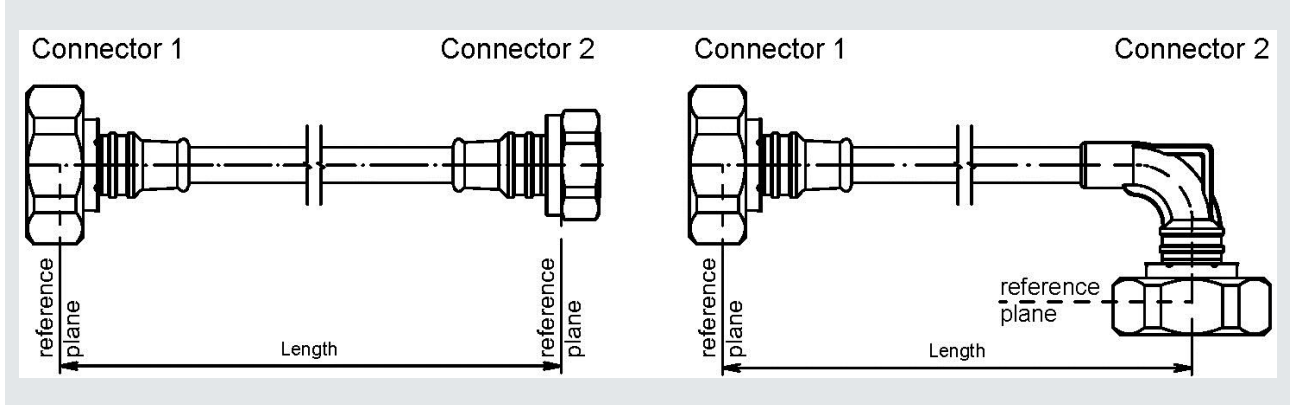
SpinnerFlex® TopFit Jumper SF 1/4"-50-PE and SF 1/4"-50-FR



Electrical Specification						
Impedance	50 Ω					
IM3 (2 x 20 W) <sup>1)</sup>	≤ -156 dBc / typ. -160 dBc					
1) Jumper cables with improved IM3 values are available on request.						
VSWR <sup>2)</sup>	Length ≤ 6 m			Length > 6 m		
Frequency range	straight/ straight	straight/ right angle	right angle/ right angle	straight/ straight	straight/ right angle	right angle/ right angle
≤ 960 MHz	≤ 1.05 typ. 1.03	≤ 1.06 typ. 1.04	≤ 1.07 typ. 1.05	≤ 1.07 typ. 1.04	≤ 1.08 typ. 1.05	≤ 1.09 typ. 1.06
≤ 2,200 MHz	≤ 1.06 typ. 1.05	≤ 1.08 typ. 1.06	≤ 1.10 typ. 1.07	≤ 1.08 typ. 1.06	≤ 1.10 typ. 1.07	≤ 1.12 typ. 1.08
≤ 2,700 MHz	≤ 1.10 typ. 1.06	≤ 1.12 typ. 1.07	≤ 1.14 typ. 1.08	≤ 1.12 typ. 1.07	≤ 1.14 typ. 1.08	≤ 1.16 typ. 1.09
≤ 3,800 MHz	≤ 1.12 typ. 1.10	≤ 1.14 typ. 1.11	≤ 1.16 typ. 1.12	≤ 1.14 typ. 1.11	≤ 1.16 typ. 1.12	≤ 1.18 typ. 1.13
≤ 5,825 MHz <sup>3)</sup>	≤ 1.18 typ. 1.14	≤ 1.20 typ. 1.16	≤ 1.22 typ. 1.18	≤ 1.20 typ. 1.15	≤ 1.22 typ. 1.17	≤ 1.24 typ. 1.19
2) The given VSWR values are maintained within all global cellular frequency bands.						
3) Extended frequency range for premium quality. Please specify before order.						
	960 MHz	2,200 MHz	2,700 MHz	3,800 MHz	5,825 MHz	
Insertion loss, nominal  (20 °C cable temperature values without connectors, typ. connector attenuation is ≤ 0.01 dB)	19.1 dB/100m	30.1 dB/100m	33.7 dB/100m	40.4 dB/100m	53.4 dB/100m	
max. Power rating  (40 °C ambient temperature)	0.35 kW	0.22 kW	0.19 kW	0.16 kW	0.12 kW	

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Mechanical Specification								
Minimum bending radius	25 mm (repeated bends)							
Crush resistance	18.4 N/mm							
Recommended clamp spacing	200 mm							
Cable jacket	PE black (grey jacket available on request)							
Nominal outer jacket diameter	7.8 mm							
Connector	Material				Surface			
Inner conductor	Cu-alloy				Ag-plated			
Outer conductor	Cu-alloy				Ag-plated			
Other metal parts	Cu-alloy				Ni-plated			
Insulation	PTFE, PE							
Sealing	Silicone rubber							
Installation instruction	M30804							
Length definition								
Length [m]	> 0.5 - 1.0	> 1.0 - 1.5	> 1.5 - 2.5	> 2.5 - 4.0	> 4.0 - 6.0	> 6.0 - 10.0	> 10.0 - 15.0	> 15.0 - 20.0
Tolerances [mm]	± 10	± 15	± 25	± 40	± 60	± 100	± 150	± 200



Environmental Specification			
Degree of protection	IP 68 (0.1 bar / 6 hours / unmated) IP 68 (1 bar / 1 hour / mated)		
Recommended temperature range	Storage	Installation	Operation
SF 1/4"-50-PE	-70 °C to +85 °C	-40 °C to +60 °C	-50 °C to +85 °C
SF 1/4"-50-FR	-70 °C to +85 °C	-25 °C to +60 °C	-50 °C to +85 °C
Cable jacket	Halogen free acc. to IEC 60754-1 and IEC 60754-2		
SF 1/4"-50-PE	Fire retardant acc. to IEC 60332-1, IEC 60332-3.C, IEC 61034 and UL 1581-1991		
SF 1/4"-50-FR	Fire retardant acc. to IEC 60332-1, IEC 60332-3.C, IEC 61034 and UL 1581-1991		
RoHS	compliant to directive 2011/65/EU and amendment (EU) 2015/863		

Template TD-00006B

## SpinnerFlex® TopFit Jumper SF 1/4"-50-PE and SF 1/4"-50-FR

### Sales article numbers

Jumper	Cable Type	Cable Size	Cable Jacket	Connector 1	Connector 2	Length	Unit	Length	Extra Features		
<b>J</b>	<b>Z</b>	<b>X</b>	<b>Z</b>	<b>-</b>	<b>XZ</b>	<b>XZ</b>	<b>-</b>	<b>X</b>	<b>Z</b>	<b>X</b>	<b>-Z</b>
LF	L		Blank for PE	Any combination of connectors below is possible.							Leave blank if not applicable
SF	S			Please specify an XZ combination for connectors 1 and 2.							
1/4"		14		In case of pigtail leave blank for connector 2							
3/8"		38									
1/2"		12									
Fire retardant			F								
Construction Products Regulation (CPR)			C								
Gray			G								
X = Connector System	Z = Connector Style			X	Z						
7-16	Male			7	M						
4.1-9.5	Male right angle			41	R						
N	Female (right angle)			N	F(R)						
	Female bulkhead (right angle)				B(R)						
	Female four-hole panel (right angle)				P(R)						
4.3-10	Male; screw			43	MS						
2.2-5	Male; hand screw			22	MH						
NEX10®	Male; push-pull			X	MP						
	Male right angle; screw				RS						
	Male right angle; hand screw				RH						
	Male right angle; push-pull				RP						
	Female (right angle)				F(R)						
	Female bulkhead (right angle)				B(R)						
	Female four-hole panel (right angle)			P(R)							
Length in meters/feet (depending on unit specified)											
Meters as unit								M			
Feet as unit								F			
Length in decimeters/inches (depending on unit specified)											
Low PIM Measurement Cable (only available with PE jacket)											
- Passive intermodulation (IM3) @ 2 x 20 W ≤ -160 dBc <sup>1)</sup> , inspection certificate 3.1 <sup>2)</sup> , per jumper										I0	
- Passive intermodulation (IM3) @ 2 x 20 W ≤ -160 dBc <sup>1)</sup> , inspection certificate 3.1 <sup>2)</sup> , per order										I1	
- Passive intermodulation (IM3) @ 2 x 20 W ≤ -165 dBc <sup>1)</sup> , inspection certificate 3.1 <sup>2)</sup> , per jumper										I2	
- Passive intermodulation (IM3) @ 2 x 20 W ≤ -165 dBc <sup>1)</sup> , inspection certificate 3.1 <sup>2)</sup> , per order										I3	
- Passive intermodulation (IM3) @ 2 x 20 W ≤ -170 dBc <sup>1)</sup> , inspection certificate 3.1 <sup>2)</sup> , per jumper										I4	
- Passive intermodulation (IM3) @ 2 x 20 W ≤ -170 dBc <sup>1)</sup> , inspection certificate 3.1 <sup>2)</sup> , per order										I5	
Defined phase length										P	
Extended frequency range (> 3800 MHz)										E	
Connector specified on side B kitted to the jumper										K	
Jumper set										S	

1) According to IEC 62037-2 and WN 20 000  
 2) According to EN 10204

**Examples:**

JS14-7M43RS-2M5 (SF 1/4" jumper with 7-16 male and 4.3-10 male right angle screw type; length 2.5 meter)

JS38-43MS-20F5 (SF 3/8" jumper with 4.3-10 male screw type and pigtail; length 20 feet + 5 inch)

JL12-7M7M-10M-K (LF 1/2" jumper with 7-16 male and loose end with 7-16 male as MultiFit kitted to the loose end; length 10.0 meter)

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**7-16 connector system (according IEC 61169-4)**

Plug straight	Plug right angle	Socket

**4.3-10 connector system (according IEC 61169-54)**

Plug straight (screw)	Plug right angle (screw)	Socket
Plug straight (hand-screw)	Plug right angle (hand-screw)	
Plug straight (push pull)	Plug right angle (push pull)	

Dimensions in mm.

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**4.1-9.5 connector system (according IEC 60169-11)**

Plug straight	Plug right angle

**N connector system (according IEC 61169-16)**

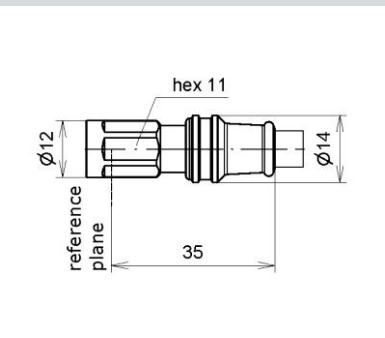
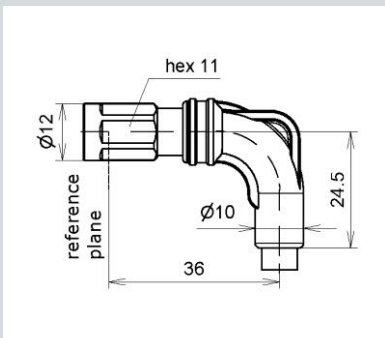
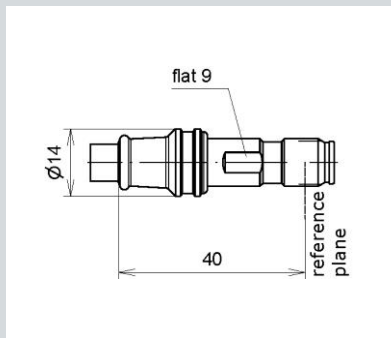
Plug straight	Plug right angle	Socket

**2.2-5 connector system (according IEC 61169-66)**

Plug straight	Plug right angle	Socket

Dimensions in mm.

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NEX10 connector system (IEC standardization in progress)		
Plug straight	Plug right angle	Socket
		

Dimensions in mm.