S-SERIES
The economical, low loss microwave cable

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Product description

The S-SERIES is a line of cost-efficient, low-loss microwave cables. It covers technically demanding requirements in a wide range of applications, preferably in fixed installations. These versatile cables are characterised by their very low insertion loss across a wide frequency range.
S-SERIES cables are easy to assemble and are made of environmentally friendly, halogen free materials.

Features and benefits

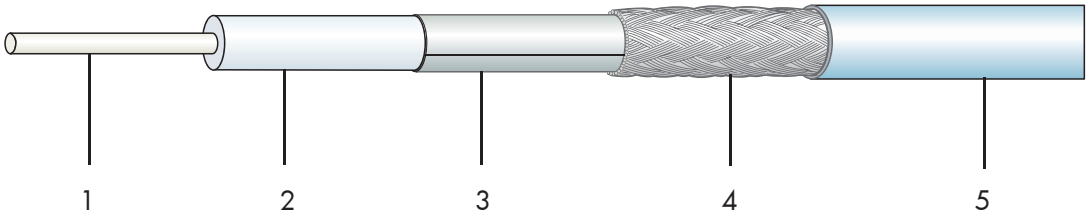
- Low insertion loss
- Excellent screening effectiveness
- Wide frequency range
- Quick and easy to assemble
- Halogen free
- Comprehensive connector range
- Cost-efficient, environmentally friendly solution for a wide range of applications
- Low Smoke Free of Halogen (LSFH) version available (S04262_B-01)

HUBER+SUHNER cable type	Item no.	Operating frequency (GHz)	Temperature range		Outer dia. (mm)	Nom. attenuation 18 GHz, 25 °C (dB/m)	Bending radii		More Information see page
			minimum (°C)	maximum (°C)			static (mm)	dyn. (mm)	
S_04272_B	22511622	18	-40	+85	5.50	1.6	25	90	76
S_04212_B	22511855	18	-40	+85	5.30	1.6	25	90	78
S_04262_B-01	84000918	18	-40	+85	5.50	1.6	25	90	80

S-SERIES S_04272_B

Item no. 22511622

Cable design



	Description	Diameter
1. Centre conductor	Solid silver-plated copper wire	1.40 mm
2. Dielectric	Foamed polyethylene	3.82 mm
3. 1st outer conductor	Longitudinal aluminium foil	3.96 mm
4. 2nd outer conductor	Tin-plated copper braid	4.48 mm
5. Jacket	Polyethylene, blue	5.50 mm

Electrical cable data

Impedance					50 Ohm
Operating frequency					18 GHz
Capacitance					82 pF/m
Velocity of propagation					82 %
Time delay					4.1 ns/m
Nom. attenuation*	coefficient a	**0.1970**	coefficient b	**0.0450**	
Max. attenuation*	coefficient a	**0.2167**	coefficient b	**0.0495**	
Max. operating voltage					0.5 kVrms
Min. screening effectiveness up to 18 GHz					90 dB

*Attenuation calculation

$$\alpha_{25} = a \cdot \sqrt{f(GHz)} + b \cdot f(GHz)$$ *(dB/m)*

General cable data

Temperature range	-40...+85 °C
Weight	4.4 kg/100m
Min. bending radius static	25 mm
Min. bending radius dynamic	90 mm

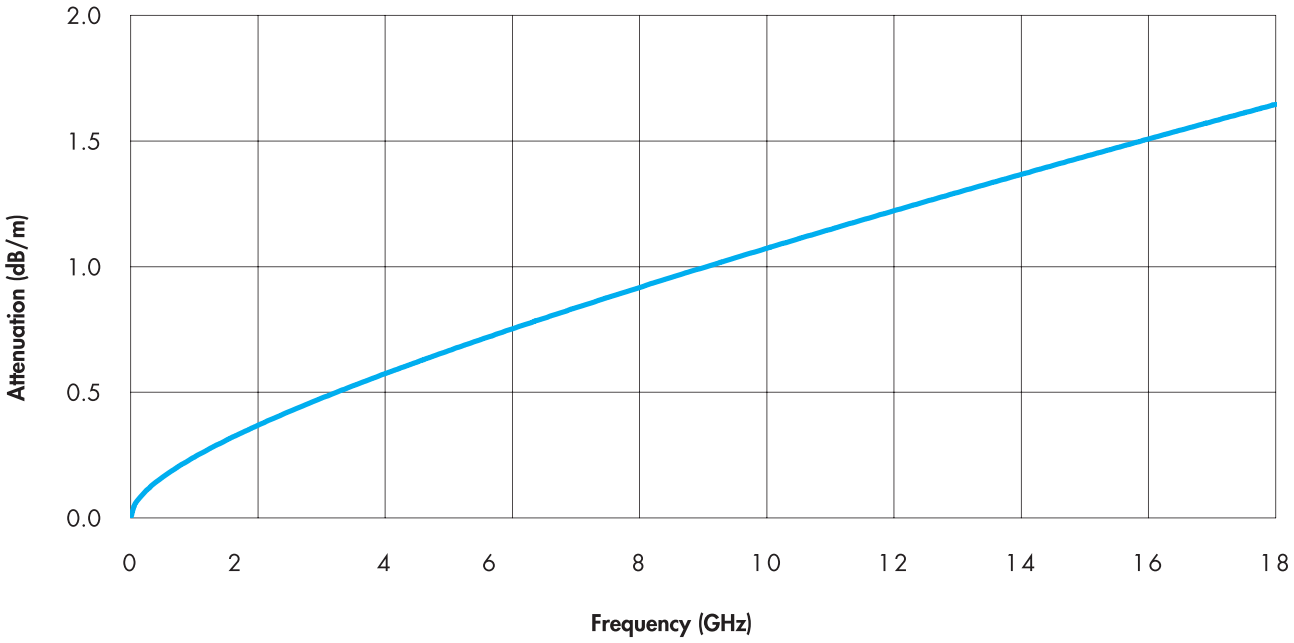
Suitable connectors

Please refer to page 82

S-SERIES S_04272_B

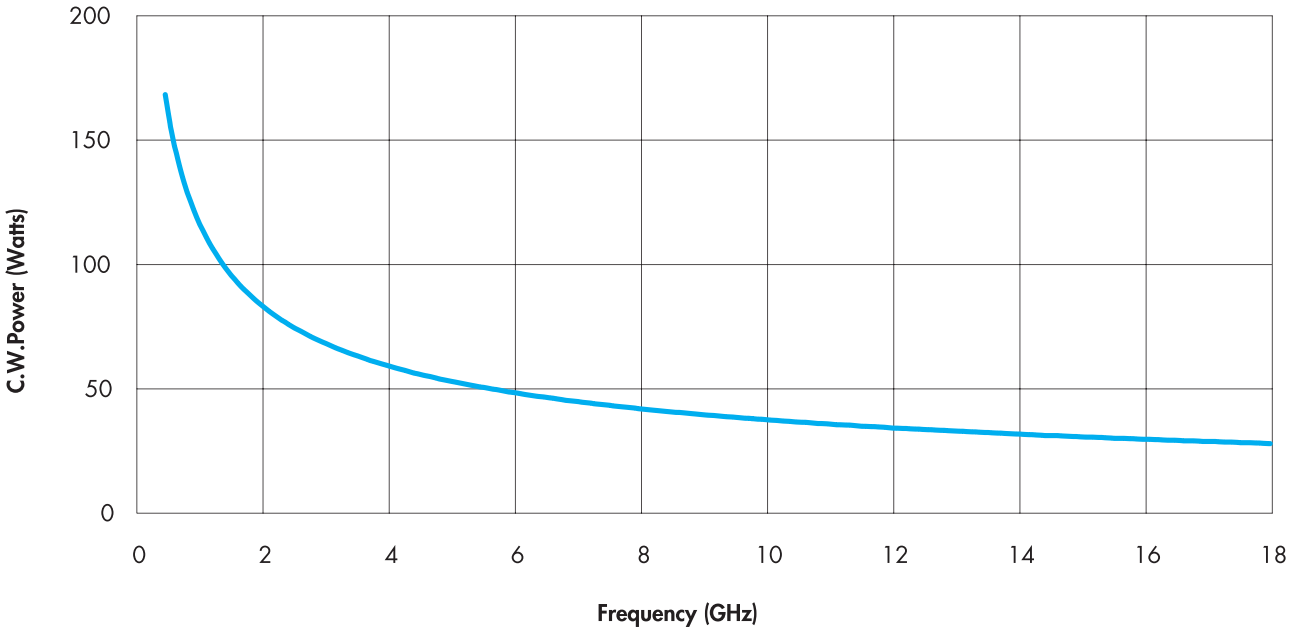
Cable attenuation

Nominal values @ +25 °C ambient temperature



Power handling

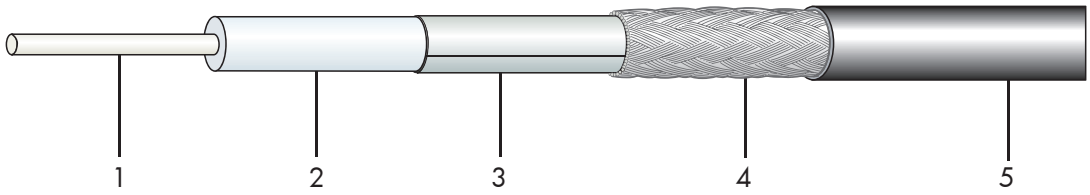
Maximum values @ +40 °C ambient temperature and sea level



S-SERIES S_04212_B

Item no. 22511855

Cable design



	Description	Diameter
1. Centre conductor	Solid silver-plated copper wire	1.40 mm
2. Dielectric	Foamed polyethylene	3.82 mm
3. 1st outer conductor	Longitudinal aluminium foil	3.96 mm
4. 2nd outer conductor	Tin-plated copper braid	4.48 mm
5. Jacket	Polyurethane, black	5.30 mm

Electrical cable data

Impedance					50 Ohm
Operating frequency					18 GHz
Capacitance					82 pF/m
Velocity of propagation					82 %
Time delay					4.1 ns/m
Nom. attenuation*	coefficient a	**0.1970**	coefficient b	**0.0450**	
Max. attenuation*	coefficient a	**0.2167**	coefficient b	**0.0495**	
Max. operating voltage					0.5 kVrms
Min. screening effectiveness up to 18 GHz					90 dB

*Attenuation calculation $\alpha_{25} = a \cdot \sqrt{f(GHz)} + b \cdot f(GHz)$ *(dB/m)*

General cable data

Temperature range	–40...+85 °C
Weight	4.1 kg/100m
Min. bending radius static	25 mm
Min. bending radius dynamic	90 mm

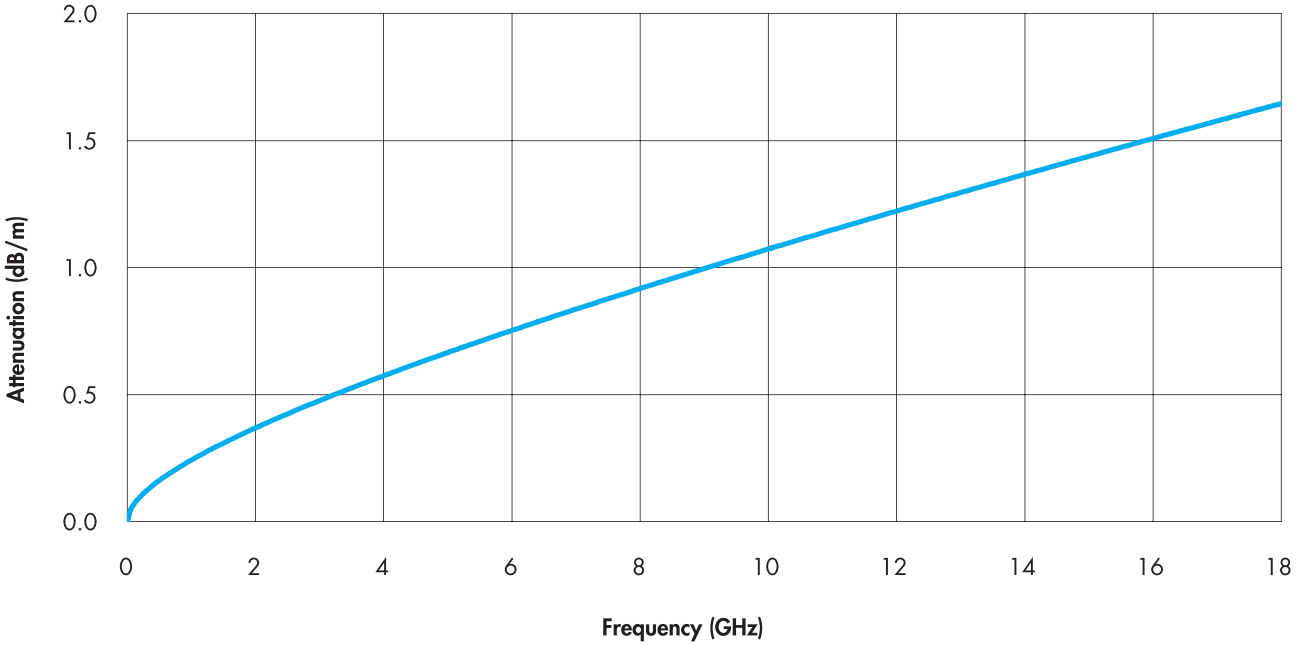
Suitable connectors

Please refer to page 82

S-SERIES S_04212_B

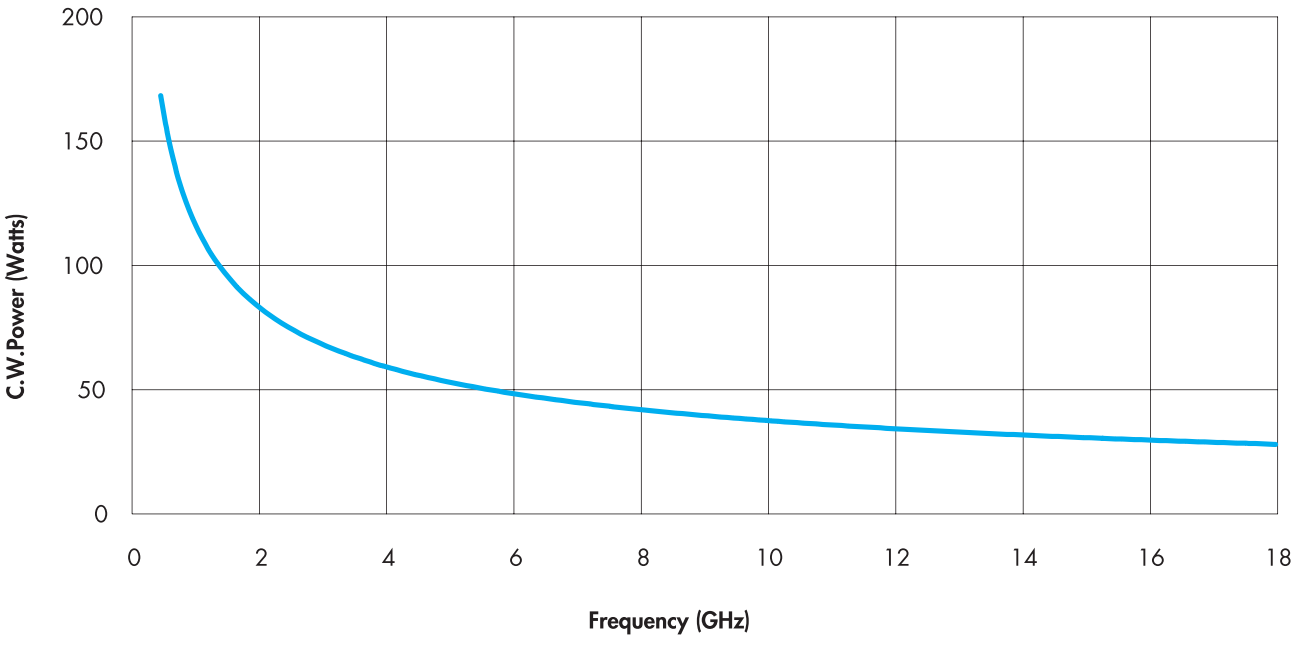
Cable attenuation

Nominal values @ +25 °C ambient temperature



Power handling

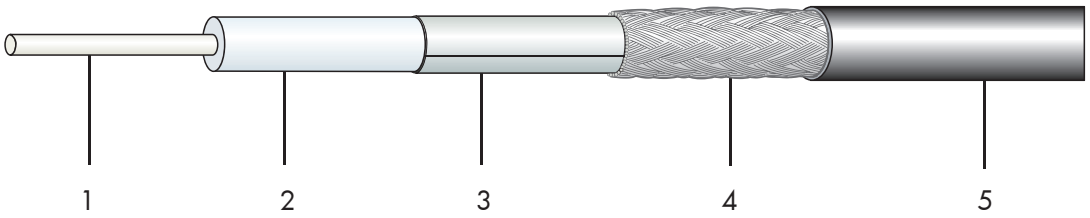
Maximum values @ +40 °C ambient temperature and sea level



S-SERIES S_04262_B-01

Item no. 84000918

Cable design



	Description	Diameter
1. Centre conductor	Solid silver-plated copper wire	1.40 mm
2. Dielectric	Foamed polyethylene	3.82 mm
3. 1st outer conductor	Longitudinal aluminium foil	3.96 mm
4. 2nd outer conductor	Tin-plated copper braid	4.48 mm
5. Jacket	LSFH (Low Smoke, Free of Halogen) , black	5.50 mm

Electrical cable data

Impedance					50 Ohm
Operating frequency					18 GHz
Capacitance					82 pF/m
Velocity of propagation					82 %
Time delay					4.1 ns/m
Nom. attenuation*	coefficient a	**0.1970**	coefficient b	**0.0450**	
Max. attenuation*	coefficient a	**0.2167**	coefficient b	**0.0495**	
Max. operating voltage					0.5 kVrms
Min. Screening effectiveness up to 18 GHz					90 dB

*Attenuation calculation $\alpha_{25} = a \cdot \sqrt{f(GHz)} + b \cdot f(GHz)$ *(dB/m)*

General cable data

Temperature range	-40...+85 °C
Weight	4.1 kg/100m
Min. bending radius static	25 mm
Min. bending radius dynamic	90 mm

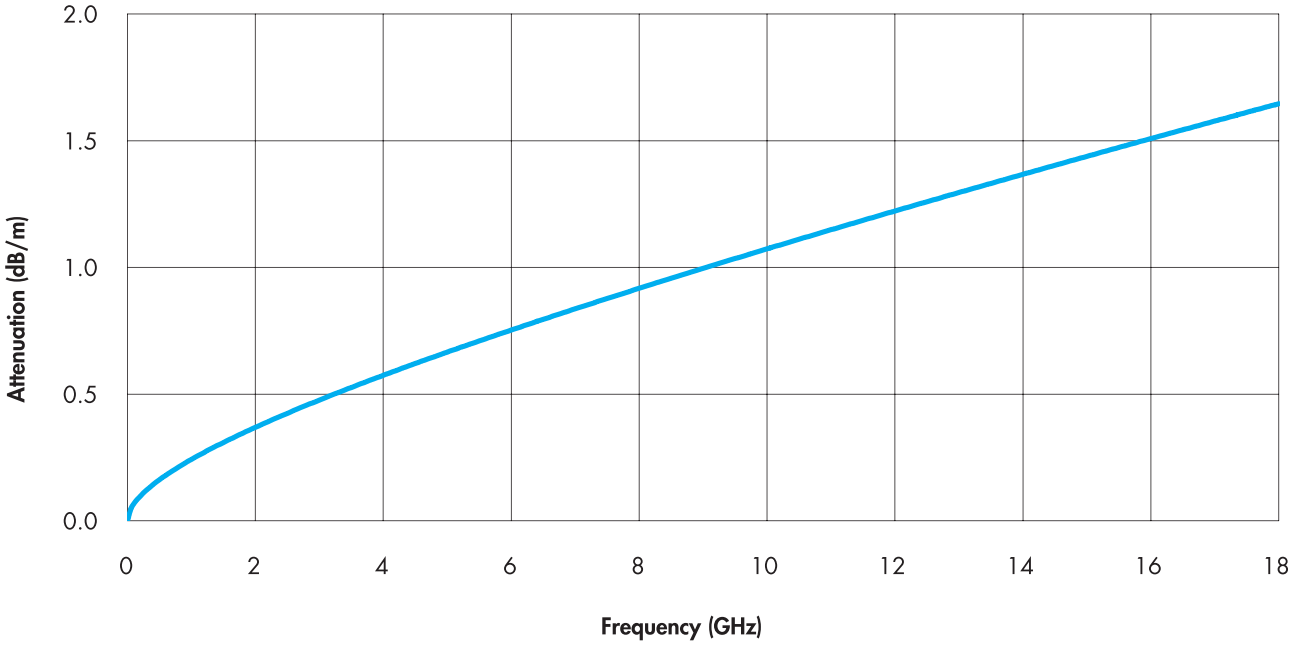
Suitable Connectors

Please refer to page 82

S-SERIES S_04262_B-01

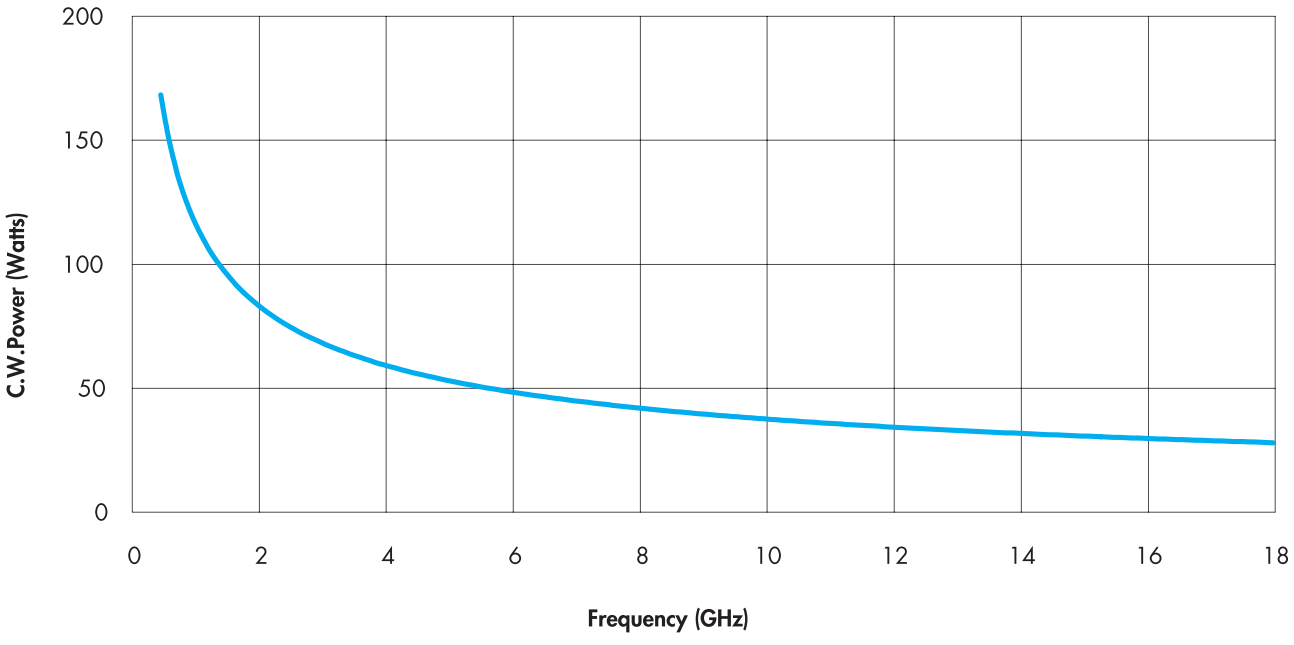
Cable attenuation

Nominal values @ +25 °C ambient temperature



Power handling

Maximum values @ +40 °C ambient temperature and sea level



S-SERIES

Suitable connectors

A wide range of standard connectors is available for S-SERIES microwave cables. In addition, HUBER+SUHNER offers a fast delivery service for RF tested ready-to-use cable assemblies.

HUBER+SUHNER cable type	Series, pattern	HUBER+SUHNER connector type	Item no.	Operating frequency (GHz)
S_04272_B S_04212_B S_04262_B-01	**N**			
	Straight cable plug	11_N-50-4-55/133_NE	22645935	18
	Right angle cable plug	16_N-50-4-53/199_NE	22645021	18
	Straight panel bulkhead cable jack	24_N-50-4-53/133_NE	22644946	18
	PC3.5			
	Straight cable plug	11_PC35-50-4-4/199_UE	22644936	26.5
	Straight cable jack	21_PC35-50-4-4/199_UE	22644937	26.5
	SMA			
	Straight cable plug	11_SMA-50-4-53/139_NE	22644342	18
	Right angle cable plug	16_SMA-50-4-55/199_NE	22644654	18
	Straight cable jack	21_SMA-50-4-52/133_NE	22644409	18
	TNC			
	Straight cable plug	11_TNC-50-4-52/133_NE	22644434	18
	Straight panel bulkhead cable jack	24_TNC-50-4-52/133_NE	22644938	18

Connector dimensions and additional information

For connector dimensions and additional information please refer to the corresponding connector type in the HUBER+SUHNER Coaxial Connectors General Catalogue or contact your local HUBER+SUHNER partner.