



STANDARD

5128

Cable type :

5128

Reference :

EC4-50

Cable with standard UV resistant PE jacket, halogen free according to IEC 60754

FLAME RETARDANT

HLFR

Cable type :

5128-HLFR

Reference :

EC4-50-FR

Cable with UV resistant, halogen free, low smoke, flame retardant jacket according to IEC 60754-2, IEC 60332-1-2, IEC 60332-3 Cat. C and IEC 61034-1+2

CHARACTERISTICS

Construction

• Inner conductor		
Material	copper clad aluminium wire	
Diameter (mm)	4.8	
• Dielectric		
Material	gas-injected cellular polyethylene	
Diameter (mm)	12.4	
• Outer conductor		
Material	corrugated copper tube	
Diameter (mm)	13.7	
• Jacket		
Material	black polyethylene	
Thickness (mm)	1.1	
Diameter (mm)	16.0	

Mechanical

• Minimum bending radius	
a) single bending (cm)	7
b) 15 repeated bends (cm)	12.5
• Maximum pulling strength (daN)	100
• Recommended temperature range	
- Storage	-70 to +85 °C
- Installation	-40 to +60 °C
- Operation	-55 to +85 °C
• Maximum length per hoisting grip (m)	70
• Maximum hanger spacing	1
• Flat plate crush resistance (kg/mm)	1.9
• Bending moment (Nm)	3.5
• Weight (kg/km)	235

[1] a = 0.2105
 b = 0.000625
 $\alpha(f) = a \cdot \sqrt{f} + b \cdot f$ [dB/100m]

Electrical

• Characteristic impedance (Ω)	50 ±1
• Nominal capacity (pF/m)	76
• Relative propagation velocity (%)	88
• Inductance (μH/m)	0.190
• DC-resistance at 20 °C	
- inner conductor (Ω/km)	1.48
- outer conductor (Ω/km)	2.04
• RF peak voltage (kV)	1.6
• RF peak power (kW)	25.6
• Cut-off-frequency (GHz)	9.8
• Insulation resistance (MΩ.km)	>>5000

Frequency (MHz)	Attenuation at 20 °C ^(*)		Mean power rating ^(**) (kW)
	(dB/100m)		
10	0.67	11.74	
20	0.95	8.27	
30	1.17	6.73	
80	1.93	4.08	
100	2.17	3.64	
150	2.67	2.95	
200	3.10	2.54	
300	3.83	2.06	
400	4.46	1.77	
450	4.75	1.66	
500	5.02	1.57	
600	5.53	1.43	
700	6.01	1.31	
800	6.45	1.22	
894	6.85	1.15	
960	7.12	1.11	
1000	7.28	1.08	
1500	9.09	0.87	
1700	9.74	0.81	
1800	10.06	0.78	
1880	10.30	0.77	
2000	10.66	0.74	
2170	11.16	0.71	
2200	11.25	0.70	
2300	11.53	0.68	
2400	11.81	0.67	
2500	12.09	0.65	
3000	13.40	0.59	
4000	15.81	0.50	
6000	20.06	0.39	

(*) nominal values
 (**) Ambient temperature = 40 °C; Temperature of inner conductor = 100 °C; VSWR = 1.0; no solar loading



NF50A12



716FV12



716MAL12

CONNECTORS & TOOL

Reference	Description
716MV12	7-16 DIN male, O-Ring
716FV12	7-16 DIN female, O-Ring
716MA12	7-16 DIN male, Sealant injection
716FA12	7-16 DIN female, Sealant injection
716MVL12	7-16 DIN male, angle, O-Ring
716MAL12	7-16 DIN male, right angle, Sealant injections
NM50V12	N male, O-Ring
NF50V12	N female, O-Ring
NM50A12	N male, Sealant injection
NF50A12	N female, Sealant injection
NM50VL12	N male, angle, O-Ring
NM50AL12	N male, right angle, Sealant injection
SPTC50AV12	Cable preparation tool
Cutting knife (d)	Spare parts for cable preparation tool
Peeling knife (e)	(Refer to installation instruction of the tool)
SIL-744 90ml	Sealant for connectors using sealant injection
SIL-744 310 ml	Sealant for connectors using sealant injection

Rem.: • Sealant for connectors using the sealant injection method must be purchased separately.



SPTC50AV12

ACCESSORIES

Description	Reference
• Grounding clamp with parallel outlet	GCS12PAR
• Fixing clamps	see page 35
• Additional weatherproofing	see page 41
• Lace-up hoisting grip	HG-12
• Pre-laced hoisting grip	HG-12-L
	see page 37

Specification of N-connectors 7-16 connectors

Electrical

• Nominal impedance (Ω)	50	50
• Reflection coefficient at 2 GHz	≤ 0.02 (*)	≤ 0.02 (*)
• Insulation resistance ($G\Omega$)	≥ 5	≥ 10
• Test voltage (at sea level) (kV rms, 50 Hz)	2.5	4
• Working voltage (at sea level) (kV rms, 50 Hz)	1	2.7
• Screening effectiveness up to 1 GHz (dB)	> 128	> 128
• Outer contact resistance (m Ω)	≤ 1	≤ 1
• Inner contact resistance (m Ω)	≤ 1	≤ 1
• PIM ratio (2 x 20 W carrier) (dBc)		≤ -155 (Typical -163)

Mechanical

• Torque on coupling nut (Nm)	8	30
• Cable retention (N)	> 500	> 1000

Environmental

• Temperature range ($^{\circ}C$)	-40 to +85
• Degree of protection (humidity)	IP67, IP68

Materials

• External parts	Passivated silver plated or electroless nickel plated brass
• Outer contact	Passivated silver plated brass
• Inner contact	Passivated silver plated Cu alloy
• Dielectric	TPX/PTFE TPX
• Gaskets	High quality silicone

(*) ≤ 0.03 for right angle connector



GCS12PAR