



1/2"

STANDARD

Cable type : 5128  
Reference : EC4-50

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

CHARACTERISTICS

Construction

<b>• Inner conductor</b>	
Material	copper clad aluminium wire
Diameter (mm) (in)	4.8 (0.19)
<b>• Dielectric</b>	
Material	gas-injected cellular polyethylene
Diameter (mm) (in)	12.4 (0.49)
<b>• Outer conductor</b>	
Material	corrugated copper tube
Diameter (mm) (in)	13.8 (0.54)
<b>• Outer sheath</b>	
Thickness (mm) (in)	1.1 (0.04)
Diameter (mm) (in)	16.0 (0.63)

Mechanical characteristics

<b>• Minimum bending radius</b>	
a) single bending (cm) (in)	7 (2.8)
b) 15 repeated bends (cm) (in)	12 (4.7)
<b>• Maximum pulling strength (daN) (lb)</b>	
	94 (211)
<b>• Recommended temperature range</b>	
- Storage	-70 to +85 °C (-94 to +185 °F)
- Installation	-40 to +60 °C (-40 to +140 °F)
- Operation	-55 to +85 °C (-67 to +185 °F)
<b>• Max. length per hoisting grip (m) (ft)</b>	
	70 (230)
<b>• Maximum hanger spacing (m) (ft)</b>	
	1 (3.3)
<b>• Flat plate crush res. (kg/mm) (lb/in)</b>	
	1.5 (87)
<b>• Bending moment (Nm) (lb-ft)</b>	
	3.4 (2.5)
<b>• Approximate weight<sup>[4]</sup> (kg/km) (lb/ft)</b>	
	225 (0.152) / 247 (0.167)

FLAME RETARDANT

Cable type : 5128-HLFR  
Reference : EC4-50-FR

Cable with UV resistant, halogen free, low smoke, flame retardant jacket according to IEC 60754, IEC 60332-1, IEC 60332-3 cat. C and IEC 61034. Reaction to fire according to EN 60332-1-2 E<sub>ca</sub>. Compliant to EN 50575.

Electrical characteristics

• Characteristic impedance (Ω)	50 ± 1
• Nominal capacity (pF/m) (pF/ft)	76 (23.2)
• Relative propagation velocity (%)	88
• Inductance (μH/m) (μH/ft)	0.189 (0.058)
<b>• DC-resistance at 20°C (68°F)</b>	
- inner conductor (Ω/km) (Ω/1000ft)	1.48 (0.45)
- outer conductor (Ω/km) (Ω/1000ft)	2.14 (0.65)
• RF peak voltage (kV)	1.6
• RF peak power (kW)	25.6
• Cut-off-frequency (GHz)	9.8
• Insulation resistance (MΩ.km)	>> 5000

Attenuation<sup>[1]</sup> and power rating

Frequency (MHz)	Attenuation at 20°C (68°F) <sup>[2]</sup>		Mean power rating <sup>[3]</sup> (kW)
	(dB/100m)	(dB/100ft)	
10	0.67	0.204	11.79
20	0.95	0.290	8.31
30	1.17	0.357	6.77
80	1.92	0.585	4.11
100	2.15	0.655	3.67
150	2.65	0.808	2.98
200	3.07	0.936	2.57
300	3.79	1.155	2.08
400	4.41	1.345	1.79
450	4.69	1.430	1.68
500	4.96	1.512	1.59
600	5.46	1.665	1.45
700	5.92	1.805	1.33
800	6.36	1.939	1.24
894	6.74	2.055	1.17
960	7.01	2.137	1.13
1000	7.16	2.183	1.10
1500	8.91	2.716	0.89
1700	9.54	2.909	0.83
1800	9.85	3.003	0.80
1880	10.08	3.073	0.78
2000	10.43	3.180	0.76
2170	10.91	3.326	0.72
2200	10.99	3.351	0.72
2300	11.27	3.436	0.70
2400	11.54	3.518	0.68
2500	11.80	3.598	0.67
2700	12.32	3.756	0.64
3000	13.06	3.982	0.60
4000	15.36	4.683	0.51
6000	19.39	5.912	0.41

[1] The attenuation can be approximated by the formula:

$$\alpha(f[\text{MHz}]) = A \cdot \sqrt{f[\text{MHz}]} + B \cdot f[\text{MHz}] \quad (\text{dB}/100\text{m})$$

A = 0.21  
B = 0.00052

[2] Nominal values

[3] Ambient temperature = 40°C (104°F); temperature of inner conductor = 100°C (212°F); VSWR = 1.0; no solar loading

[4] Standard PE jacket / HLFR Jacket

