

**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) 13.8
- **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
- **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
- **Approximate weight^[2]** (kg/km) 231 / 253

[1] $a = 0.2105$ $b = 0.00057$ $\alpha(f) = a \cdot \sqrt{f} + b \cdot f$ [dB/100m]

[2] Standard PE jacket / HLFR jacket

[3] Nominal values

[4] Ambient temperature = 40 °C; Temperature of inner conductor = 100 °C; VSWR = 1.0; no solar loading

Electrical

- **Characteristic impedance** (Ω) 50 $\pm$ 1
- **Nominal capacity** (pF/m) 76
- **Relative propagation velocity** (%) 88
- **Inductance** (μ H/m) 0.189
- **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** ($M\Omega$.km) $>> 5000$

Attenuation^[1] and power rating

Frequency (MHz)	Attenuation at 20 °C ^[3] (dB/100m)	Mean power rating ^[4] (kW)
10	0.67	11.75
20	0.95	8.28
30	1.17	6.74
80	1.93	4.09
100	2.16	3.65
150	2.66	2.96
200	3.09	2.55
300	3.82	2.07
400	4.44	1.78
450	4.72	1.67
500	4.99	1.58
600	5.50	1.43
700	5.97	1.32
800	6.41	1.23
894	6.80	1.16
960	7.07	1.12
1000	7.23	1.09
1500	9.01	0.88
1700	9.65	0.82
1800	9.96	0.79
1880	10.20	0.77
2000	10.55	0.75
2170	11.04	0.71
2200	11.13	0.71
2300	11.41	0.69
2400	11.68	0.68
2500	11.95	0.66
2700	12.48	0.63
3000	13.24	0.60
4000	15.59	0.51
6000	19.73	0.40