

Flexible RF cable

RADOX_RF_179 Item: **85023705**

Description

RADOX RF: Highly flame retardant LSFH alternatives to RG cables

RG179 LSFH, 75 Ohm, 3 GHz, 105°C, ø2.8 mm, RADOX® jacket,
Flame retardant, Railway qualified



Technical Data

Construction

| | Material | Detail | Diameter |
|------------------|-----------------------------|---------------|----------------|
| Centre conductor | Steel, Copper+Silver plated | Strand-07 | 0.305 mm |
| Dielectric | SPEX (Crosslink Foam PE) | | 1.55 mm |
| Outer conductor | Copper, Silver plated | Braid, 94% | 2 mm |
| Jacket | RADOX EM104 | RAL 9005 - bk | 2.8 mm +/- 0.1 |

Print: HUBER+SUHNER RADOX_RF_179 75 Ohm (production order number)

Electrical Data

| | |
|--------------------------------|--------------------------------------|
| Impedance | 75 Ω +/- 3 |
| Operating Frequency | 3 GHz |
| Capacitance | 63 pF/m |
| Velocity of signal propagation | 69.7 % |
| Signal delay | 4.78 ns/m |
| Screening effectiveness | ≥ 40 dB (up to 1 GHz) |
| Operating voltage | ≤ 1 kV _{rms} (at sea level) |
| Test voltage | 2 kV _{rms} (50 Hz/1 min) |

Mechanical Data

| | | |
|---------------------|------------------------------|--------------|
| Weight | | 1.3 kg/100 m |
| Min. bending radius | static | 5 mm |
| | repeated (for ≤ 50 bendings) | 25 mm |

Environmental Data

| | |
|--|---|
| Temperature range | -40 °C ... +105 °C |
| Installation temperature | -20 °C... +60 °C |
| Flame propagation test | EN 60332-1-2, EN 50305, 9.1.2, IEC 60332-3-24, UL 1581 § 1100 |
| Smoke density test | EN 61034-2 |
| Halogen test | IEC 60754 |
| Halogen free | Yes |
| 2011/65/EU (RoHS - including 2015/863 and 2017/2102) | compliant |
| 1907/2006/EC (REACH) | compliant |
| 2000/53/EC (ELV) | compliant |
| 2012/19/EU (WEEE) | no special marking needed |

Additional Information

EN 45545 compliant Hazard level for indoor cables: HL3 NFPA-130 compliant An operating temperature of -55°C is feasible for static applications.

Remarks

(For details refer to the HUBER+SUHNER RF CABLES GENERAL CATALOGUE or contact your nearest HUBER+SUHNER partner)

Suitable Connectors

| | |
|-------------|------------------|
| Cable group | U5 2 mm / 75 Ohm |
|-------------|------------------|

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Matrix typical Attenuation [formula: $(a \cdot f^{0.5} + b \cdot f)$] and maximum Power CW [formula: $(p/f^{0.5})$]

Coefficients:

a = 0.8288

b = 0.0725

f_{max} = 3

P at 1GHz = 45

| Frequency (GHz) | Nom. attenuation (dB / m) sea level 25° C ambient temperature | Nom. attenuation (dB / ft) sea level 25° C ambient temperature | Max. CW power (W) sea level 40° C ambient temperature |
|--------------------|---|--|---|
| 0,15 | 0,33 | 0,101 | 116 |
| 0,3 | 0,48 | 0,145 | 82 |
| 0,45 | 0,59 | 0,179 | 67 |
| 0,6 | 0,69 | 0,209 | 58 |
| 0,75 | 0,77 | 0,235 | 52 |
| 0,9 | 0,85 | 0,260 | 47 |
| 1,05 | 0,93 | 0,282 | 44 |
| 1,2 | 0,99 | 0,303 | 41 |
| 1,35 | 1,06 | 0,323 | 39 |
| 1,5 | 1,12 | 0,343 | 37 |
| 1,65 | 1,18 | 0,361 | 35 |
| 1,8 | 1,24 | 0,379 | 34 |
| 1,95 | 1,3 | 0,396 | 32 |
| 2,1 | 1,35 | 0,412 | 31 |
| 2,25 | 1,41 | 0,429 | 30 |
| 2,4 | 1,46 | 0,444 | 29 |
| 2,55 | 1,51 | 0,460 | 28 |
| 2,7 | 1,56 | 0,475 | 27 |
| 2,85 | 1,61 | 0,489 | 27 |
| 3,0 | 1,65 | 0,504 | 26 |

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