

Flexible RF cable RADOX_RF_400

Description

RADOX RF: Highly flame retardant LSFH alternatives to RG cables

RG400 LSFH, 50 Ohm, 6 GHz, 105°C, ø5.34 mm, RADOX® jacket, Flame retardant, Railway qualified



Technical Data

Construction

| | Material | Detail | Diameter |
|------------------|--------------------------|---------------|------------------|
| Centre conductor | Copper, Silver plated | Strand-19 | 1 mm |
| Dielectric | SPEX (Crosslink Foam PE) | | 2.98 mm |
| Outer conductor | Copper, Silver plated | Braid, 96% | 3.61 mm |
| Outer conductor | Copper, Silver plated | Braid, 94 % | 4.2 mm |
| Jacket | RADOX EM104 | RAL 9005 - bk | 5.34 mm +/- 0.06 |

Print: HUBER+SUHNER RADOX_RF_400 50 Ohm (production order number)

Electrical Data

| | |
|--------------------------------|--|
| Impedance | 50 Ω +/- 2 |
| Operating Frequency | 6 GHz |
| Capacitance | 94.5 pF/m |
| Velocity of signal propagation | 70.3 % |
| Signal delay | 4.74 ns/m |
| Screening effectiveness | ≥ 70 dB (up to 6 GHz) |
| Operating voltage | ≤ 2.5 kV _{rms} (at sea level) |
| Test voltage | 5 kV _{rms} (50 Hz/1 min) |

Mechanical Data

| | |
|---------------------|--|
| Weight | 5.6 kg/100 m |
| Min. bending radius | static 10 mm |
| | repeated (for ≤ 30000 bendings) 40 mm |
| | dynamic 40 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 |
| 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 |

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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.

Ordering Information

Order as RADOX_RF_400

Remarks

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

Suitable Connectors

Cable group U41 3 mm / 50 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 = 0.402

b = 0.142

$f_{\max} = 6$

P at 1GHz = 225

| 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 |
|--------------------|---|--|---|
| 0,3 | 0,26 | 0,080 | 411 |
| 0,6 | 0,4 | 0,121 | 290 |
| 0,9 | 0,51 | 0,155 | 237 |
| 1,2 | 0,61 | 0,186 | 205 |
| 1,5 | 0,71 | 0,215 | 184 |
| 1,8 | 0,79 | 0,242 | 168 |
| 2,1 | 0,88 | 0,268 | 155 |
| 2,4 | 0,96 | 0,294 | 145 |
| 2,7 | 1,04 | 0,318 | 137 |
| 3,0 | 1,12 | 0,342 | 130 |
| 3,3 | 1,2 | 0,365 | 124 |
| 3,6 | 1,27 | 0,388 | 119 |
| 3,9 | 1,35 | 0,411 | 114 |
| 4,2 | 1,42 | 0,433 | 110 |
| 4,5 | 1,49 | 0,455 | 106 |
| 4,8 | 1,56 | 0,476 | 103 |
| 5,1 | 1,63 | 0,497 | 100 |
| 5,4 | 1,7 | 0,518 | 97 |
| 5,7 | 1,77 | 0,539 | 94 |
| 6,0 | 1,84 | 0,560 | 92 |