

RG316 LSFH, 50 Ohm, 3 GHz, 105°C, RADOX®jacket, ENVIROFLEX_316

Properties

- Halogen free alternative to RG cables
- Ozone, UV and weathering resistance
- UL AWM style 3651



| Construction | | | |
|------------------|-------------------------------|---------------|---------------------|
| Component | Material | Detail | Diameter |
| Centre conductor | Steel, Copper + Silver plated | Strand-07 | 0.54 mm |
| Dielectric | SPEX (Crosslink Foam PE) | | 1.53 mm |
| Outer conductor | Copper, Silver plated | Braid, 99% | 1.99 mm |
| Jacket | RADOX | RAL 5017 - bl | 2.54 mm +/- 0.07 mm |

| Electrical data | |
|----------------------------------|-------------|
| Impedance | 50 Ω +/- 2Ω |
| Operating frequency | ≤ 3 GHz |
| Capacitance | 94.5 pF/m |
| Velocity of signal propagation | 70.7 % |
| Signal delay | 4.71 ns/m |
| Operating Voltage (at sea level) | ≤ 1.5 kVrms |
| Voltage Rating UL | 300 V |
| Test voltage (50 Hz/1 min) | ≤ 3 kVrms |

| Mechanical data | |
|-------------------------|------------------------------|
| Weight | approx. 16 g/m |
| Static bending radius | ≥ 5 mm |
| Repeated bending radius | 25 mm (bendings, up to 3000) |
| Dynamic bending radius | ≤ 30 mm |

| Environmental data | |
|----------------------------|--|
| Operation temperature | -40 °C ... 105 °C |
| Installation temperature | -20 °C ... 60 °C |
| Flame propagation standard | UL 1581 § 1100 |
| Fire characteristics | free of halogenes, acc. standard IEC 60754 |
| Ageing test | MIL-C-17 § 4.8.16 |

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| Environmental data | |
|--------------------|------------------------|
| Cold bend test | MIL-C-17 § 4.8.19 |
| UV resistance | IEC 60068-2-5, proc. C |

| Material compliance | | | |
|---------------------|-----------------------------------|-----------------------------|----------------------|
| Item number | Directive / Regulation | Rating | Exemptions / Details |
| 23009565 | RoHS 2011/65/EU and (EU) 2015/863 | Compliant without exemption | |

| Suitable connectors | |
|---------------------|----|
| Cable group | U2 |

| Ordering information | | |
|----------------------|------------------|----------------------------|
| Item number | Item description | Available as assembly only |
| 23009565 | ENVIROFLEX_316 | No |

| Power Matrix | | | |
|---|------------------------------------|------------------------------------|------------------------------------|
| Calculation: typical Attenuation [formula: (a*f^0.5 + b*f)] and maximum Power CW [formula: (p/f^0.5)] | | | |
| a coefficient typical = | 0.7264 | b coefficient typical = | 0.17 |
| fmax = | 3 | P at 1 GHz = | 90 |
| Frequency | Nom. attenuation | Nom. attenuation | CW power |
| GHz | (dB/m) | (dB/ft) | (W) |
| | sea level 25°C ambient temperature | sea level 25°C ambient temperature | sea level 40°C ambient temperature |
| 0.10 | 0.247 | 0.075 | 285 |
| 0.20 | 0.359 | 0.109 | 201 |
| 0.30 | 0.449 | 0.137 | 164 |
| 0.40 | 0.527 | 0.161 | 142 |
| 0.60 | 0.665 | 0.203 | 116 |
| 0.80 | 0.786 | 0.239 | 101 |
| 1.00 | 0.896 | 0.273 | 90 |
| 1.20 | 1.000 | 0.305 | 82 |
| 1.40 | 1.097 | 0.335 | 76 |
| 1.60 | 1.191 | 0.363 | 71 |
| 1.80 | 1.281 | 0.390 | 67 |
| 2.00 | 1.367 | 0.417 | 64 |
| 2.50 | 1.574 | 0.480 | 57 |
| 3.00 | 1.768 | 0.539 | 52 |

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