

## Flexible RF cable Enviroflex\_B58

### Description

Enviroflex: LSFH alternatives to RG cables

RG58 LSFH basic type, 50 Ohm, 1 GHz, 85°C, ø4.95 mm, LSFH jacket, Flame retardant



### Technical Data

#### Construction

|                  | Material                     | Detail        | Diameter         |
|------------------|------------------------------|---------------|------------------|
| Centre conductor | Copper, Tin plated           | Strand-19     | 0.9 mm           |
| Dielectric       | PE (Polyethylene)            |               | 2.95 mm          |
| Outer conductor  | Copper, Tin plated           | Braid, 94%    | 3.5 mm           |
| Jacket           | LSFH (modified polyethylene) | RAL 9005 - bk | 4.95 mm +/- 0.15 |

Print: HUBER+SUHNER ENVIROFLEX B58 50 OHM (production order number)

#### Electrical Data

|                                |                                        |
|--------------------------------|----------------------------------------|
| Impedance                      | 50 Ω +/- 2                             |
| Operating Frequency            | 1 GHz                                  |
| Capacitance                    | 101 pF/m                               |
| Velocity of signal propagation | 66 %                                   |
| Signal delay                   | 5 ns/m                                 |
| Screening effectiveness        | ≥ 40 dB (up to 3 GHz)                  |
| Operating voltage              | ≤ 2.5 kV <sub>rms</sub> (at sea level) |
| Test voltage                   | 5 kV <sub>rms</sub> (50 Hz/1 min)      |

#### Mechanical Data

|                     |                                          |
|---------------------|------------------------------------------|
| Weight              | 3.8 kg/100 m                             |
| Min. bending radius | static<br>25 mm                          |
|                     | repeated (for ≤ 15000 bendings)<br>40 mm |
|                     | dynamic<br>50 mm                         |

#### Environmental Data

|                                                      |                   |
|------------------------------------------------------|-------------------|
| Temperature range                                    | -40 °C ... +85 °C |
| Installation temperature                             | -20 °C... +60 °C  |
| Cold bend test                                       | MIL-C-17 § 4.8.19 |
| Halogen free                                         | Yes               |
| 2011/65/EU (RoHS - including 2015/863 and 2017/2102) | compliant         |
| 1907/2006/EC (REACH)                                 | compliant         |

### Additional Information

#### Ordering Information

|          |                |
|----------|----------------|
| Order as | Enviroflex_B58 |
|----------|----------------|

#### Remarks

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

#### Suitable Connectors

|             |                  |
|-------------|------------------|
| Cable group | U7 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 = 0.3455

b = 0.2373

f<sub>max</sub> = 1

P at 1GHz = 105

| Frequency | Nom. attenuation                          | Nom. attenuation                          | Max. CW power                             |
|-----------|-------------------------------------------|-------------------------------------------|-------------------------------------------|
| (GHz)     | (dB / m)                                  | (dB / ft)                                 | (W)                                       |
|           | sea level 25° C<br>ambient<br>temperature | sea level 25° C<br>ambient<br>temperature | sea level 40° C<br>ambient<br>temperature |
| 0,05      | 0,09                                      | 0,027                                     | 470                                       |
| 0,1       | 0,13                                      | 0,041                                     | 332                                       |
| 0,15      | 0,17                                      | 0,052                                     | 271                                       |
| 0,2       | 0,2                                       | 0,062                                     | 235                                       |
| 0,25      | 0,23                                      | 0,071                                     | 210                                       |
| 0,3       | 0,26                                      | 0,079                                     | 192                                       |
| 0,35      | 0,29                                      | 0,088                                     | 177                                       |
| 0,4       | 0,31                                      | 0,096                                     | 166                                       |
| 0,45      | 0,34                                      | 0,103                                     | 157                                       |
| 0,5       | 0,36                                      | 0,111                                     | 148                                       |
| 0,55      | 0,39                                      | 0,118                                     | 142                                       |
| 0,6       | 0,41                                      | 0,125                                     | 136                                       |
| 0,65      | 0,43                                      | 0,132                                     | 130                                       |
| 0,7       | 0,46                                      | 0,139                                     | 125                                       |
| 0,75      | 0,48                                      | 0,145                                     | 121                                       |
| 0,8       | 0,5                                       | 0,152                                     | 117                                       |
| 0,85      | 0,52                                      | 0,159                                     | 114                                       |
| 0,9       | 0,54                                      | 0,165                                     | 111                                       |
| 0,95      | 0,56                                      | 0,171                                     | 108                                       |
| 1,0       | 0,58                                      | 0,178                                     | 105                                       |

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