

## Coaxial Cable Enviroflex\_B58

### Description

PE - 50 Ohm - single screen



### 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 (PA no.)

#### Electrical Data

|                                |                                             |
|--------------------------------|---------------------------------------------|
| Impedance                      | 50 $\Omega$ +/- 2                           |
| Operating Frequency            | 1 GHz                                       |
| Capacitance                    | 101 pF/m                                    |
| Velocity of signal propagation | 66 %                                        |
| Signal delay                   | 5 ns/m                                      |
| Insulation resistance          | $\geq 1 \times 10^8$ M $\Omega$ m           |
| Min. screening effectiveness   | $\geq 40$ dB (up to 3 GHz)                  |
| Max. operating voltage         | $\leq 2.5$ 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 $\leq 50$ bendings)<br>40 mm |
|                     | dynamic<br>50 mm                           |

#### Environmental Data

|                          |                  |
|--------------------------|------------------|
| Temperature range        | -40 °C... +85 °C |
| Installation temperature | -20 °C... +60 °C |
| 2011/65/EU (RoHS)        | 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 |
|-------------|------------------|

## Coaxial Cable Enviroflex\_B58

**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<br>(GHz) | Nom. attenuation<br>(dB / m)<br>sea level 25° C<br>ambient<br>temperature | Nom. attenuation<br>(dB / ft)<br>sea level 25° C<br>ambient<br>temperature | Max. CW power<br>(watt)<br>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                                                                  |