

Coaxial Cable  
ENVIROFLEX\_178-01

苏州启道 — 中国区优势专业供应商  
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Description

PE Foam cross-linked - 50 Ohm - single screen (UL AWM Style 3651)



Technical Data

Construction

|                  | Material                    | Detail        | Diameter         |
|------------------|-----------------------------|---------------|------------------|
| Centre conductor | Steel, Copper+Silver plated | Strand-07     | 0.305 mm         |
| Dielectric       | SPEX (Crosslink Foam PE)    |               | 0.82 mm          |
| Outer conductor  | Copper, Silver plated       | Braid, 95%    | 1.27 mm          |
| Jacket           | RADOX                       | RAL 9005 - bk | 1.84 mm +/- 0.07 |

Print: HUBER+SUHNER ENVIROFLEX 178-01 50 Ohm (UL logo) AWM Style 3651 (PA no.)

Electrical Data

|                                |                  |                                      |
|--------------------------------|------------------|--------------------------------------|
| Impedance                      |                  | 50 Ω +/- 2                           |
| Operating Frequency            |                  | 3 GHz                                |
| Capacitance                    |                  | 94.5 pF/m                            |
| Velocity of signal propagation |                  | 70.7 %                               |
| Signal delay                   |                  | 4.71 ns/m                            |
| Insulation resistance          |                  | ≥ 1 x 10 <sup>7</sup> MQm            |
| Min. screening effectiveness   |                  | ≥ 40 dB (up to 3 GHz)                |
| Max. operating voltage         |                  | ≤ 1 kV <sub>rms</sub> (at sea level) |
| Test voltage                   |                  | 2 kV <sub>rms</sub> (50 Hz/1 min)    |
| Voltage Rating UL              |                  | 300 V                                |
| Phase vs Temperature           | -40°C... + 100°C | 8400 ppm                             |
| Phase vs Bending               |                  | 0.7 °/GHz                            |

Mechanical Data

|                     |                                                   |                        |
|---------------------|---------------------------------------------------|------------------------|
| Weight              |                                                   | 0.65 kg/100 m          |
| Min. bending radius | static<br>repeated (for ≤ 50 bendings)<br>dynamic | 5 mm<br>20 mm<br>30 mm |

Environmental Data

|                          |                        |
|--------------------------|------------------------|
| Temperature range        | -40°C... +105 °C       |
| Temperature Rating UL    | 105 °C                 |
| Installation temperature | -20 °C... +60 °C       |
| Flammability             | UL 1581 § 1100,        |
| Halogen test             | IEC 60754              |
| Uv resistance test       | IEC 60068-2-5, proc. C |
| Solar radiation          | IEC 60068-2-5, proc. C |
| 2011/65/EU (RoHS)        | compliant              |

Additional Information

Ordering Information

|          |                   |
|----------|-------------------|
| Order as | ENVIROFLEX_178-01 |
|----------|-------------------|

Remarks

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

Suitable Connectors

|             |                  |
|-------------|------------------|
| Cable group | U1 1 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 = 1.4067

b = 0.2229

f<sub>max</sub> = 3

P at 1GHz = 60

| Frequency<br>(GHz) | Nom. attenuation<br>(dB / m)              | Nom. attenuation<br>(dB / ft)             | Max. CW power<br>(watt)                   |
|--------------------|-------------------------------------------|-------------------------------------------|-------------------------------------------|
|                    | sea level 25° C<br>ambient<br>temperature | sea level 25° C<br>ambient<br>temperature | sea level 40° C<br>ambient<br>temperature |
| 0,15               | 0,58                                      | 0,176                                     | 155                                       |
| 0,3                | 0,84                                      | 0,255                                     | 110                                       |
| 0,45               | 1,04                                      | 0,318                                     | 89                                        |
| 0,6                | 1,22                                      | 0,373                                     | 77                                        |
| 0,75               | 1,39                                      | 0,422                                     | 69                                        |
| 0,9                | 1,54                                      | 0,468                                     | 63                                        |
| 1,05               | 1,68                                      | 0,511                                     | 59                                        |
| 1,2                | 1,81                                      | 0,551                                     | 55                                        |
| 1,35               | 1,94                                      | 0,590                                     | 52                                        |
| 1,5                | 2,06                                      | 0,627                                     | 49                                        |
| 1,65               | 2,17                                      | 0,663                                     | 47                                        |
| 1,8                | 2,29                                      | 0,698                                     | 45                                        |
| 1,95               | 2,4                                       | 0,731                                     | 43                                        |
| 2,1                | 2,51                                      | 0,764                                     | 41                                        |
| 2,25               | 2,61                                      | 0,796                                     | 40                                        |
| 2,4                | 2,71                                      | 0,827                                     | 39                                        |
| 2,55               | 2,81                                      | 0,858                                     | 38                                        |
| 2,7                | 2,91                                      | 0,888                                     | 37                                        |
| 2,85               | 3,01                                      | 0,917                                     | 36                                        |
| 3,0                | 3,11                                      | 0,946                                     | 35                                        |