

## Coaxial Cable MULTIFLEX\_141

### Description

The flexible microwave cable



### Technical Data

#### Construction

|                  | Material                             | Detail             | Diameter        |
|------------------|--------------------------------------|--------------------|-----------------|
| Centre conductor | Copper, Silver plated                | Wire               | 0.92 mm         |
| Dielectric       | PTFE (Polytetrafluoroethylene)       |                    | 2.93 mm         |
| Outer conductor  | Copper, Silver plated                | wrapped Foil, 100% | 3.21 mm         |
| Outer conductor  | Multi-end: Copper - Tinned           | Braid, 83 %        | 3.53 mm         |
| Jacket           | FEP (Fluorinated ethylene propylene) | RAL 5015 - bl      | 4.14 mm +/- 0.1 |

Print: HUBER+SUHNER MULTIFLEX 141 (PA no.)

#### Electrical Data

|                                |  |
|--------------------------------|--|
| Impedance                      | 50 Ω +/- 2                             |
| Operating Frequency            | 33 GHz                                 |
| Capacitance                    | 95 pF/m                                |
| Velocity of signal propagation | 70.6 %                                 |
| Signal delay                   | 4.7 ns/m                               |
| Insulation resistance          | ≥ 1 x 10 <sup>8</sup> MQm              |
| Min. screening effectiveness   | ≥ 90 dB (up to 18 GHz)                 |
| Max. operating voltage         | ≤ 1.9 kV <sub>rms</sub> (at sea level) |
| Test voltage                   | 3.8 kV <sub>rms</sub> (50 Hz/1 min)    |

#### Mechanical Data

|                     |                   |
|---------------------|-------------------|
| Weight              | 4.5 kg/100 m      |
| Min. bending radius | static<br>dynamic |
|                     | 10 mm<br>40 mm    |

#### Environmental Data

|                          |                                     |
|--------------------------|-------------------------------------|
| Temperature range        | -65 °C... +165 °C                   |
| Installation temperature | -20 °C... +60 °C                    |
| Flammability             | IEC 60332-1, UL 1581 § 1080 (VW-1), |
| 2011/95/EC (RoHS)        | compliant                           |

### Additional Information

#### Ordering Information

Order as MULTIFLEX\_141

#### Remarks

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

#### Suitable Connectors

Cable group Y17 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 = 0.3732

b = 0.0279

f<sub>max</sub> = 33

P at 1GHz = 373

| 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 |
|--------------------|---|--|--|
| 1,65               | 0,53  | 0,160  | 290  |
| 3,3                | 0,77  | 0,235  | 205  |
| 4,95               | 0,97  | 0,295  | 168  |
| 6,6                | 1,14  | 0,348  | 145  |
| 8,25               | 1,3   | 0,397  | 130  |
| 9,9                | 1,45  | 0,442  | 119  |
| 11,55              | 1,59  | 0,485  | 110  |
| 13,2               | 1,72  | 0,526  | 103  |
| 14,85              | 1,85  | 0,565  | 97   |
| 16,5               | 1,98  | 0,602  | 92   |
| 18,15              | 2,1   | 0,639  | 88   |
| 19,8               | 2,21  | 0,675  | 84   |
| 21,45              | 2,33  | 0,709  | 81   |
| 23,1               | 2,44  | 0,743  | 78   |
| 24,75              | 2,55  | 0,776  | 75   |
| 26,4               | 2,65  | 0,809  | 73   |
| 28,05              | 2,76  | 0,841  | 70   |
| 29,7               | 2,86  | 0,872  | 68   |
| 31,35              | 2,96  | 0,903  | 67   |
| 33,0               | 3,06  | 0,934  | 65   |