

## Coaxial Cable RG\_214\_HIFLEX

### Description

PE-50 Ohm - double screen



### Technical Data

#### Construction

|                  | Material               | Detail        | Diameter         |
|------------------|------------------------|---------------|------------------|
| Centre conductor | Copper, Silver plated  | Strand-19     | 2.25 mm          |
| Dielectric       | TPO (Olefine TPE)      |               | 7.3 mm           |
| Outer conductor  | Copper, Silver plated  | Braid, 93%    | 8 mm             |
| Outer conductor  | Copper, Silver plated  | Braid, 95 %   | 8.7 mm           |
| Jacket           | PVC II (low migration) | RAL 9005 - bk | 10.8 mm +/- 0.15 |

Print: HUBER+SUHNER RG 214 HiFlex 50 Ohm (PA no.)

#### Electrical Data

|                                |                 |                                      |
|--------------------------------|-----------------|--------------------------------------|
| Impedance                      |                 | 50 Ω +/- 2                           |
| Operating Frequency            |                 | 6 GHz                                |
| Capacitance                    |                 | 101 pF/m                             |
| Velocity of signal propagation |                 | 66 %                                 |
| Signal delay                   |                 | 5.03 ns/m                            |
| Insulation resistance          |                 | ≥ 1 x 10 <sup>6</sup> MΩm            |
| Min. screening effectiveness   |                 | ≥ 70 dB (up to 1 GHz)                |
| Max. operating voltage         |                 | ≤ 5 kV <sub>rms</sub> (at sea level) |
| Test voltage                   |                 | 10 kV <sub>rms</sub> (50 Hz/1 min)   |
| Phase vs Temperature           | -40°C... + 80°C | 16200 ppm                            |
| Phase vs Bending               |                 | 5 °/GHz                              |

#### Mechanical Data

|                     |                              |               |
|---------------------|------------------------------|---------------|
| Weight              |                              | 18.5 kg/100 m |
| Min. bending radius | static                       | 15 mm         |
|                     | repeated (for ≤ 50 bendings) | 60 mm         |
|                     | dynamic                      | 100 mm        |

#### Environmental Data

|                          |                  |
|--------------------------|------------------|
| Temperature range        | -25 °C... +85 °C |
| Installation temperature | -20 °C... +60 °C |
| Flammability             | IEC 60332-1, ,   |
| 2011/95/EC (RoHS)        | compliant        |

### Additional Information

#### Ordering Information

Order as RG\_214\_HIFLEX

#### Remarks

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

#### Suitable Connectors

Cable group U32 7 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 = 0.1924

b = 0.0567

f<sub>max</sub> = 6

P at 1GHz = 320

| 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 |
|--------------------|---|--|--|
| 0,3                | 0,12  | 0,037  | 584  |
| 0,6                | 0,18  | 0,056  | 413  |
| 0,9                | 0,23  | 0,071  | 337  |
| 1,2                | 0,28  | 0,085  | 292  |
| 1,5                | 0,32  | 0,098  | 261  |
| 1,8                | 0,36  | 0,110  | 239  |
| 2,1                | 0,4   | 0,121  | 221  |
| 2,4                | 0,43  | 0,132  | 207  |
| 2,7                | 0,47  | 0,143  | 195  |
| 3,0                | 0,5   | 0,153  | 185  |
| 3,3                | 0,54  | 0,164  | 176  |
| 3,6                | 0,57  | 0,173  | 169  |
| 3,9                | 0,6   | 0,183  | 162  |
| 4,2                | 0,63  | 0,193  | 156  |
| 4,5                | 0,66  | 0,202  | 151  |
| 4,8                | 0,69  | 0,211  | 146  |
| 5,1                | 0,72  | 0,221  | 142  |
| 5,4                | 0,75  | 0,230  | 138  |
| 5,7                | 0,78  | 0,239  | 134  |
| 6,0                | 0,81  | 0,247  | 131  |