

# HUBER+SUHNER® DATA SHEET

## 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       | POE (Polyolefine Elastomer)                |               | 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 $\Omega$ +/- 2                  |
| Max. operating frequency       | 6 GHz                              |
| Capacitance                    | 101 pF/m                           |
| Velocity of signal propagation | 66 %                               |
| Signal delay                   | 5.03 ns/m                          |
| Insulation resistance          | $\geq 1 \times 10^6$ M $\Omega$ m  |
| 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) |

#### Mechanical Data

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

#### Environmental Data

|                          |                   |
|--------------------------|-------------------|
| Temperature range        | -25 °C... + 85 °C |
| Installation temperature | -20 °C... + 60 °C |
| Flammability             | IEC 60332-1       |
| 2002/95/EC (RoHS)        | compliant         |

#### Ordering Information

|          |               |
|----------|---------------|
| Order as | RG_214_HIFLEX |
|----------|---------------|

#### Additional Information

##### Remarks

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

#### Suitable Connectors

|             |               |
|-------------|---------------|
| Cable group | crimped (U32) |
|             | clamped (U33) |
|             | soldered —    |

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Rev.: O



**Matrix**      **Attenuation** [ formula:  $(a \cdot f^{0.5} + b \cdot f)$  ] **and Power CW** [ formula:  $(p \cdot f / f^{0.5})$  ]

Coefficients:

|    |                  |    |                                           |                    |                                           |                           |                                           |
|----|------------------|----|-------------------------------------------|--------------------|-------------------------------------------|---------------------------|-------------------------------------------|
| a= | 0.1924           | b= | 0.0567                                    | f <sub>max</sub> = | 6                                         | p <sub>at</sub><br>1GHz = | 320                                       |
|    |                  |    |                                           |                    |                                           |                           |                                           |
|    | <b>Frequency</b> |    | <b>Nom. attenuation</b>                   |                    | <b>Nom. attenuation</b>                   |                           | <b>Max. CW power</b>                      |
|    | <b>(GHz)</b>     |    | <b>(dB / m)</b>                           |                    | <b>(dB / ft)</b>                          |                           | <b>(watt)</b>                             |
|    |                  |    | sea level<br>25° C ambient<br>temperature |                    | sea level<br>25° C ambient<br>temperature |                           | sea level<br>40° C ambient<br>temperature |
|    |                  |    |                                           |                    |                                           |                           |                                           |
|    | 0.3              |    | 0.12                                      |                    | 0.037                                     |                           | 584                                       |
|    | 0.6              |    | 0.18                                      |                    | 0.055                                     |                           | 413                                       |
|    | 0.9              |    | 0.23                                      |                    | 0.070                                     |                           | 337                                       |
|    | 1.2              |    | 0.28                                      |                    | 0.085                                     |                           | 292                                       |
|    | 1.5              |    | 0.32                                      |                    | 0.098                                     |                           | 261                                       |
|    | 1.8              |    | 0.36                                      |                    | 0.110                                     |                           | 239                                       |
|    | 2.1              |    | 0.40                                      |                    | 0.122                                     |                           | 221                                       |
|    | 2.4              |    | 0.43                                      |                    | 0.131                                     |                           | 207                                       |
|    | 2.7              |    | 0.47                                      |                    | 0.143                                     |                           | 195                                       |
|    | 3.0              |    | 0.50                                      |                    | 0.152                                     |                           | 185                                       |
|    | 3.3              |    | 0.54                                      |                    | 0.165                                     |                           | 176                                       |
|    | 3.6              |    | 0.57                                      |                    | 0.174                                     |                           | 169                                       |
|    | 3.9              |    | 0.60                                      |                    | 0.183                                     |                           | 162                                       |
|    | 4.2              |    | 0.63                                      |                    | 0.192                                     |                           | 156                                       |
|    | 4.5              |    | 0.66                                      |                    | 0.201                                     |                           | 151                                       |
|    | 4.8              |    | 0.69                                      |                    | 0.210                                     |                           | 146                                       |
|    | 5.1              |    | 0.72                                      |                    | 0.219                                     |                           | 142                                       |
|    | 5.4              |    | 0.75                                      |                    | 0.229                                     |                           | 138                                       |
|    | 5.7              |    | 0.78                                      |                    | 0.238                                     |                           | 134                                       |
|    | 6.0              |    | 0.81                                      |                    | 0.247                                     |                           | 131                                       |

HUBER+SUHNER is certified according to ISO 9001 and ISO 14001

#### WAIVER!

It is exclusively in written agreements that we provide our customers with warrants and representations as to the technical specifications and/or the fitness for any particular purpose. The facts and figures contained herein are carefully compiled to the best of our knowledge, but they are intended for general informational purposes only.



**HUBER+SUHNER AG**  
**RF Industrial**  
**9100 Herisau, Switzerland**  
 Phone +41 (0)71 353 41 11  
 Fax +41 (0)71 353 45 90  
[www.hubersuhner.com](http://www.hubersuhner.com)

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