

## Coaxial Cable RG\_223\_/U

### Description

PE-50 Ohm - double screen - precision type



### Technical Data

#### Construction

|                  | Material               | Detail        | Diameter       |
|------------------|------------------------|---------------|----------------|
| Centre conductor | Copper, Silver plated  | Wire          | 0.88 mm        |
| Dielectric       | PE (Polyethylene)      |               | 2.95 mm        |
| Outer conductor  | Copper, Silver plated  | Braid, 96%    | 3.6 mm         |
| Outer conductor  | Copper, Silver plated  | Braid, 94 %   | 4.2 mm         |
| Jacket           | PVC II (low migration) | RAL 9005 - bk | 5.4 mm +/- 0.1 |

Print: HUBER+SUHNER RG 223 U 50 Ohm (PA no.)

#### Electrical Data

|                                |                                             |
|--------------------------------|---------------------------------------------|
| Impedance                      | 50 $\Omega$ +/- 1                           |
| Operating Frequency            | 6 GHz                                       |
| Capacitance                    | 101 pF/m                                    |
| Velocity of signal propagation | 66 %                                        |
| Signal delay                   | 5 ns/m                                      |
| Insulation resistance          | $\geq 1 \times 10^8$ MQm                    |
| Min. screening effectiveness   | $\geq 85$ dB (up to 1 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              | 5.5 kg/100 m                               |
| Min. bending radius | static<br>30 mm                            |
|                     | repeated (for $\leq 50$ bendings)<br>54 mm |

#### Environmental Data

|                          |                  |
|--------------------------|------------------|
| Temperature range        | -25 °C... +85 °C |
| Installation temperature | -20 °C... +60 °C |
| 2011/65/EU (RoHS)        | compliant        |

### Additional Information

#### Ordering Information

Order as RG\_223\_/U

#### Remarks

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

#### Suitable Connectors

Cable group U9 3 mm / 50 Ohm

## Coaxial Cable RG\_223\_/U

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

Coefficients:

a = 0.3756

b = 0.0749

f<sub>max</sub> = 6

P at 1GHz = 120

| 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                | 0,23                                                                      | 0,070                                                                      | 219                                                                  |
| 0,6                | 0,34                                                                      | 0,102                                                                      | 155                                                                  |
| 0,9                | 0,42                                                                      | 0,129                                                                      | 126                                                                  |
| 1,2                | 0,5                                                                       | 0,153                                                                      | 110                                                                  |
| 1,5                | 0,57                                                                      | 0,174                                                                      | 98                                                                   |
| 1,8                | 0,64                                                                      | 0,195                                                                      | 89                                                                   |
| 2,1                | 0,7                                                                       | 0,214                                                                      | 83                                                                   |
| 2,4                | 0,76                                                                      | 0,232                                                                      | 77                                                                   |
| 2,7                | 0,82                                                                      | 0,250                                                                      | 73                                                                   |
| 3,0                | 0,88                                                                      | 0,267                                                                      | 69                                                                   |
| 3,3                | 0,93                                                                      | 0,283                                                                      | 66                                                                   |
| 3,6                | 0,98                                                                      | 0,299                                                                      | 63                                                                   |
| 3,9                | 1,03                                                                      | 0,315                                                                      | 61                                                                   |
| 4,2                | 1,08                                                                      | 0,330                                                                      | 59                                                                   |
| 4,5                | 1,13                                                                      | 0,346                                                                      | 57                                                                   |
| 4,8                | 1,18                                                                      | 0,360                                                                      | 55                                                                   |
| 5,1                | 1,23                                                                      | 0,375                                                                      | 53                                                                   |
| 5,4                | 1,28                                                                      | 0,389                                                                      | 52                                                                   |
| 5,7                | 1,32                                                                      | 0,403                                                                      | 50                                                                   |
| 6,0                | 1,37                                                                      | 0,417                                                                      | 49                                                                   |