

HUBER+SUHNER® DATA SHEET

Coaxial Cable: RG_400_/U



Description

PTFE - 50 Ohm - double screen

Technical Data

Construction

| | Material | Detail | Diameter |
|------------------|---------------------------------------|---------------|-----------------|
| Centre conductor | Copper, Silver plated | Strand-19 | 1 mm |
| Dielectric | PTFE | | 2.95 mm |
| Outer conductor | Copper, Silver plated | Braid, 97 % | 3.6 mm |
| Outer conductor | Copper, Silver plated | Braid, 94 % | 4.2 mm |
| Jacket | FEP | RAL 8015 - br | 4.95 mm +/- 0.1 |
| Print | HUBER+SUHNER RG 400 U 50 Ohm (PA no.) | | |

Electrical Data

| | | |
|--------------------------------|----------------------|----------------------------------|
| Impedance | 50 | Ω +/- 2 |
| Max. operating frequency | 6 | GHz |
| Capacitance | 94 | pF/m |
| Velocity of signal propagation | 69 | % |
| Signal delay | 4.75 | ns/m |
| Insulation resistance | $\geq 1 \times 10^8$ | M Ω m |
| Min. screening effectiveness | >81 | dB (up to 6 GHz) |
| Max. operating voltage | 1.7 | kV _{rms} (at sea level) |
| Test voltage | 3.4 | kV _{rms} (50 Hz/1 min) |

Mechanical Data

| | | |
|---------------------|---------------------------------|----------|
| Weight | 6.4 | kg/100 m |
| Min. bending radius | static | 30 mm |
| | repeated (for max. 50 bendings) | 50 mm |
| | dynamic | 75 mm |

Environmental Data

| | |
|--------------------------|--------------------|
| Temperature range | -20 °C... + 165 °C |
| Installation temperature | -20 °C... + 60 °C |
| Flammability | IEC 60332-3 |
| 2002/95/EC (RoHS) | compliant |

Ordering Information

Order as RG_400_/U

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 (U11) |
| | clamped (U10) |
| | soldered — |

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Rev.: I

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

Coefficients:

| | | | | | | | |
|----|------------------|----|---|--------------------|---|---------------------------|---|
| a= | 0.3894 | b= | 0.0925 | f _{max} = | 6 | p _{at} 1GHz = | 365 |
| | | | | | | | |
| | Frequency | | Nom. attenuation | | Nom. attenuation | | Max. CW power |
| | (GHz) | | (dB / m) | | (dB / ft) | | (watt) |
| | | | sea level 25° C ambient temperature | | sea level 25° C ambient temperature | | sea level 40° C ambient temperature |
| | | | | | | | |
| | 0.3 | | 0.24 | | 0.073 | | 666 |
| | 0.6 | | 0.36 | | 0.110 | | 471 |
| | 0.9 | | 0.45 | | 0.137 | | 385 |
| | 1.2 | | 0.54 | | 0.165 | | 333 |
| | 1.5 | | 0.62 | | 0.189 | | 298 |
| | 1.8 | | 0.69 | | 0.210 | | 272 |
| | 2.1 | | 0.76 | | 0.232 | | 252 |
| | 2.4 | | 0.83 | | 0.253 | | 236 |
| | 2.7 | | 0.89 | | 0.271 | | 222 |
| | 3.0 | | 0.95 | | 0.290 | | 211 |
| | 3.3 | | 1.01 | | 0.308 | | 201 |
| | 3.6 | | 1.07 | | 0.326 | | 192 |
| | 3.9 | | 1.13 | | 0.344 | | 185 |
| | 4.2 | | 1.19 | | 0.363 | | 178 |
| | 4.5 | | 1.24 | | 0.378 | | 172 |
| | 4.8 | | 1.30 | | 0.396 | | 167 |
| | 5.1 | | 1.35 | | 0.411 | | 162 |
| | 5.4 | | 1.40 | | 0.427 | | 157 |
| | 5.7 | | 1.46 | | 0.445 | | 153 |
| | 6.0 | | 1.51 | | 0.460 | | 149 |

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.



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