

## Flexible microwave cable S\_04262\_B-01 Item: 84000918

### Description

S: Low loss RF cables with foam PE dielectrics  
50 Ohm, 18 GHz, 85°C, ø5.5 mm, LSFH jacket



### Technical Data

#### Construction

|                  | Material                     | Detail                  | Diameter       |
|------------------|------------------------------|-------------------------|----------------|
| Centre conductor | Copper, Silver plated        | Wire                    | 1.4 mm         |
| Dielectric       | SPE (Foamed Polyethylene)    |                         | 3.8 mm         |
| Outer conductor  | Aluminium                    | longitudinal Foil, 100% | 4 mm           |
| Outer conductor  | Copper, Tin plated           | Braid, 87 %             | 4.5 mm         |
| Jacket           | LSFH (modified polyethylene) | RAL 9005 - bk           | 5.5 mm +/- 0.1 |

Print: HUBER+SUHNER S 04262 B-01 50 Ohm (production order number)

#### Electrical Data

|                                |  |
|--------------------------------|--|
| Impedance                      | 50 Ω +/- 2                             |
| Operating Frequency            | 18 GHz                                 |
| Capacitance                    | 82 pF/m                                |
| Velocity of signal propagation | 82 %                                   |
| Signal delay                   | 4.1 ns/m                               |
| Screening effectiveness        | ≥ 90 dB (up to 18 GHz)                 |
| Operating voltage              | ≤ 0.5 kV <sub>rms</sub> (at sea level) |
| Test voltage                   | 1 kV <sub>rms</sub> (50 Hz/1 min)      |

#### Mechanical Data

|                     |         |              |
|---------------------|---------|--------------|
| Weight              |         | 4.1 kg/100 m |
| Min. bending radius | static  | 25 mm        |
|                     | dynamic | 90 mm        |

#### Environmental Data

|  |                           |
|--|---------------------------|
| Temperature range                                    | -40 °C ... +85 °C         |
| Installation temperature                             | -20 °C... +60 °C          |
| Flame propagation test                               | IEC 60332-1, EN 50265-2-1 |
| Halogen test   | IEC 60754-2               |
| Halogen free   | Yes                       |
| 2011/65/EU (RoHS - including 2015/863 and 2017/2102) | compliant                 |
| 1907/2006/EC (REACH)                                 | compliant                 |
| 2000/53/EC (ELV)                                     | compliant                 |
| 2012/19/EU (WEEE)                                    | no special marking needed |

### 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 | X9 4 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 = 0.197

b = 0.045

f<sub>max</sub> = 18

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>(W)<br>sea level 40° C<br>ambient<br>temperature |
|--------------------|---|--|---|
| 0,9                | 0,23  | 0,069  | 126   |
| 1,8                | 0,35  | 0,105  | 89  |
| 2,7                | 0,45  | 0,136  | 73  |
| 3,6                | 0,54  | 0,163  | 63  |
| 4,5                | 0,62  | 0,189  | 57  |
| 5,4                | 0,7   | 0,214  | 52  |
| 6,3                | 0,78  | 0,237  | 48  |
| 7,2                | 0,85  | 0,260  | 45  |
| 8,1                | 0,93  | 0,282  | 42  |
| 9,0                | 1,0   | 0,304  | 40  |
| 9,9                | 1,07  | 0,325  | 38  |
| 10,8               | 1,13  | 0,345  | 37  |
| 11,7               | 1,2   | 0,366  | 35  |
| 12,6               | 1,27  | 0,386  | 34  |
| 13,5               | 1,33  | 0,406  | 33  |
| 14,4               | 1,4   | 0,425  | 32  |
| 15,3               | 1,46  | 0,445  | 31  |
| 16,2               | 1,52  | 0,464  | 30  |
| 17,1               | 1,58  | 0,483  | 29  |
| 18,0               | 1,65  | 0,502  | 28  |