| 2170056 | DATA SHEET | LAPP |
|---|---|---|
| valid from: 01.01.2019 | 2 x RG-59 B/U | |

## Application

2 x RG-59 B/U are coaxial cables for radio and computer systems, as well as applications related to commercial radio-frequency (high frequency) technology and electronics.
They allow distortion-free and low-attenuation transmission of signals with a high bandwidth over shorter distances.
The cable is intended for limited movements and for fixed installation in dry and damp interiors and outdoors. It meets the requirements concerning high ambient temperatures and chemical stress.

## Design

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| Design | Cable design and electrical properties of M17/29-RG59 to MIL-C-17.<br>Designation in accordance with MIL-DTL-17 H: M17/184-00001 |
| Conductor | Inner conductor:<br>Solid bare copper clad steel wire<br>Ø: 0.575 ± 0.025 mm |
| Insulation | PE, 3,7 mm Ø |
| Screen | Outer conductor:<br>braid of bare copper wires<br>coverage 90 % (nominal value) |
| Outer sheath | PVC, black<br>Outer diameter: 6.15 x 13 mm |

## Electrical properties at 20°C

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| Conductor resistance | Inner conductor: max. 165 Ω/km |
| Insulation resistance | min. 5 GΩ x km |
| Mutual capacitance | max. 67 pF/m (1 kHz) |
| Characteristic impedance | 75 ± 3 Ω |
| Attenuation | nom. 1.1 dB/100 m (1 MHz)<br>nom. 2.3 dB/100 m (5 MHz)<br>nom. 3.5 dB/100 m (10 MHz)<br>nom. 5.3 dB/100 m (20 MHz)<br>nom. 8.5 dB/100 m (50 MHz)<br>nom. 11.5 dB/100 m (100 MHz)<br>nom. 16.5 dB/100 m (200 MHz)<br>nom. 23 dB/100 m (400 MHz)<br>nom. 34 dB/100 m (800 MHz)<br>nom. 39 dB/100 m (1 GHz)<br>nom. 55 dB/100 m (2 GHz) |
| Peak operating voltage | max. 2.0 kV (HF voltage) |
| Rated voltage | 2.3 kV (50 Hz) |
| Test voltage | 7 kV |

## Mechanical and thermal properties

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| Minimum bending radius | occasional flexing: 20 x cable Ø<br>fixed installation: 6 x cable Ø |
| Temperature range | fixed installation: -40˚C up to 80˚C |
| General requirements | This cable is conform to the EU-Directive 2011/65/EU<br>(RoHS, Restriction of the use of certain hazardous substances). |