
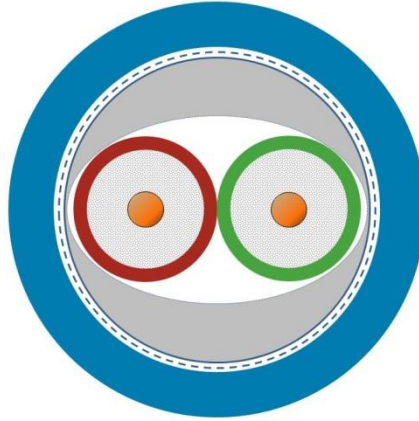


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|---|---|---|
| <b>2170334</b>                          | <b>DATA SHEET</b>                                 |  |
| <b>valid from:</b><br><b>01.01.2019</b> | <b>UNITRONIC® BUS PA FC</b><br><b>1 x 2 x 1.0</b> |   |

## Application

Data cable for PROFIBUS PA field net according to IEC 61158-2. The cable is intended for fixed laying in dry and damp interiors and with the black outer sheath for laying outdoors.

## Design




|                          |   |
|--------------------------|---|
| Certification            | c(UL)us type CMG acc. to UL 444<br>CSA C22.2 No. 214-02<br>UL CL3 acc. to UL 13<br>UL AWM style 20201 (600 V, 60 °C) acc. to UL 758 |
| Conductor                | bare copper wire,<br>nom. 1.05 mm Ø approx. 0.8 mm <sup>2</sup>   |
| Insulation               | foam-skin PE,<br>core Ø nom. 2.55 mm  |
| Core identification code | cores red and green   |
| Stranding                | 2 cores twisted to pair<br>1 layer plastic foil   |
| Inner sheath             | PVC   |
| Screen                   | 1 layer plastic-laminated aluminium foil (side with metal outwards),<br>braid of tinned copper wires, coverage 85 % (nominal value) |
| Outer sheath             | PVC lead-free<br>Colour in accordance with part number<br>outer Ø ca. 8.0 mm  |

## Electrical properties at 20°C

|                          |  |
|--------------------------|--|
| Loop resistance          | max. 44 Ω/km   |
| Insulation resistance    | min. 10 MΩxkm  |
| Mutual capacitance       | ca. 52 nF/km<br>(at 800 Hz)  |
| Inductance               | ca. 0.65 mH/km<br>(at 31.25 kHz)   |
| Characteristic impedance | 31,25 kHz: 100 Ω ± 20%<br>≥ 1 MHz: nom. 80 Ω   |
| Attenuation              | 39 kHz: max. 0,3 dB/100 m<br>100 kHz: nom. 0,35 dB/100 m<br>1 MHz: nom. 1,2 dB/100 m |
| Velocity of propagation  | nom. 81%   |
| Transfer impedance       | max. 10 mΩ/m   |
| Peak operating voltage   | 100 V (not for power purposes)   |
| Test voltage             | 3600 V   |

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### Mechanical and thermal properties

|                        |   |
|------------------------|---|
| Minimum bending radius | 5 x cable Ø   |
| Temperature range      | during installation: -5° C up to +50° C<br>static: -40° C up to +80° C  |
| UV resistance          | UV-resistant outer sheath acc. to EN 50283-4-17/ VDE 0819-289-4-17  |
| Oil resistance         | acc. to UL 1581 Sec. 480 (60 °C)  |
| General requirements   | This cable is conform to the EU-Directive 2011/65/EU<br>(RoHS, Restriction of the use of certain hazardous substances). |

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