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|---------------------------|----------------------|---|
| 002784 1                  | <b>DATA SHEET</b>    |  |
| valid from:<br>01.01.2019 | <b>UNITRONIC® FD</b> |   |

## Application

UNITRONIC® FD is a high flexible data cable with an outer sheath from PVC. The cable is designed for special use in power chains, automatic manipulators and in permanently moved machine parts.

## Design

|                          |   |
|--------------------------|---|
| Design                   | Design based on standard VDE 0812                                 |
| Conductor                | superfine wire strands of bare copper wires                       |
| Insulation               | special PVC-based compound  |
| Core identification code | according to DIN 47100  |
| Stranding                | cores stranded in layers, wrapping with fleece on the outer layer |
| Outer sheath             | special PVC-based compound<br>colour: grey (similar RAL 7001)     |

## Electrical properties at 20°C

|                             |  |
|-----------------------------|--|
| Specific volume resistivity | > 20 G $\Omega$ x cm   |
| Mutual capacitance          | C/C: approx. 120 nF/km<br>(at 800 Hz)  |
| Inductance                  | approx. 0.65 mH/km   |
| Peak operating voltage      | 0.14 mm <sup>2</sup> : 350 V (not for power applications)<br>≥ 0.25 mm <sup>2</sup> : 500 V (not for power applications) |
| Test voltage                | C/C: 1500 V  |

## Mechanical and thermal properties

|                        |   |
|------------------------|---|
| Minimum bending radius | Flexing: 5 x cable $\emptyset$<br>Fixed installation: 3 x cable $\emptyset$   |
| Temperature range      | Flexing: - 5 °C up to +70 °C<br>Fixed installation: - 40 °C up to +80 °C  |
| Flammability           | flame retardant acc. to IEC 60332-1-2   |
| 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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