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|---------------------------|--------------------------|-------------------------------------------------------------------------------------|
| 1752010R                  | <b>DATA SHEET</b>        |  |
| valid from:<br>01.01.2019 | <b>ÖLFLEX® SMART 108</b> |                                                                                     |

## Application

ÖLFLEX® SMART 108 cables are VDE approved control cables for occasional flexible use and fixed installation under medium load conditions. They are also suitable for use in dry, damp or wet areas. If using outdoors, observe the indicated temperature range and use with UV protection. They are largely resistant to certain oils at room temperature. They are suitable for occasional, non-automated movements. The maximum tensile load is 15 N/mm<sup>2</sup> of conductor cross-section during in-stallation and operation. Compulsory guidance is not permitted.

### Application range:

As power and connecting cable for control systems in machine tools, plant engineering and construction, industrial machinery, conveyor systems, production and assembly lines as well as in measuring and control technology and data processing systems.

## Design

|                          |                                                                                                                                                |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| Design                   | based on<br>EN 50525-2-51 resp. VDE 0285-525-2-51                                                                                              |
| Certification            | < VDE-REG 8639 ><br>limited to following dimension range:<br>0.5 mm <sup>2</sup> - 2.5 mm <sup>2</sup> 2 - 7 cores                             |
| Conductor                | fine wire strands of bare copper, acc. to IEC 60228 resp. VDE 0295, Class 5                                                                    |
| Insulation               | PVC compound TI2 acc. to VDE 0207-363-3 with increased requirements acc. to Lapp specification                                                 |
| Core identification code | acc. to VDE 0293-1, with or without GN/YE ground conductor<br>black cores with white numbers acc. to DIN EN 50334 resp. VDE 0293-334           |
| Stranding                | cores are stranded in layers                                                                                                                   |
| Outer sheath             | PVC compound TM2 acc. to VDE 0207-363-4-1<br>2-layer design<br>Colour: silver grey, similar RAL 7001<br>Internal layer black, similar RAL 9005 |

## Electrical properties at 20°C

|               |                     |             |
|---------------|---------------------|-------------|
| Rated voltage | U <sub>0</sub> / U: | 300 / 500 V |
| Test voltage  | core/core:          | 4000 V AC   |

## Mechanical and thermal properties

|                        |                                                                                                                               |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| Minimum bending radius | occasional flexing: 15 x cable diameter<br>fixed installation: 4 x cable diameter                                             |
| Temperature range      | occasional flexing: - 5 °C up to +70 °C max. conductor temp.<br>fixed installation: - 40 °C up to +80 °C max. conductor temp. |
| Flammability           | flame retardant acc. to IEC 60332-1-2 resp. VDE 0482-332-1-2                                                                  |
| Tests                  | acc. to IEC 60811, EN 50395, EN 50396                                                                                         |
| General requirements   | These cables are conform to the EU-Directive 2014/35/EU (Low Voltage Directive)                                               |

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