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|---------------------------|-------------------------------|---|
| 10035030                  | <b>DATA SHEET</b>             |  |
| valid from:<br>01.01.2019 | <b>ÖLFLEX® CLASSIC 110 CH</b> |   |

## Application

ÖLFLEX® CLASSIC 110 CH are screened, halogen free, oil resistant, highly flame retardant, power and control cables, designed for the European and North American market, for occasional flexible use and fixed installation subject to normal mechanical load conditions. They are among others for use in dry and damp rooms. Considering the temperature range, a temporary outdoor use is possible. They are suitable for occasional, non-automated movements. The maximum tensile load is 15 N/mm<sup>2</sup> of conductor cross-section during installation and operation. Compulsory guidance is not permitted.

ÖLFLEX® CLASSIC 110 CH cables are particularly used in areas, where human and animal life as well as valuable property are exposed to high risk of fire hazards. In the event of a fire minimal toxic and no corrosive gases occur. The screen is a protection against electrical interference.

### Application range:

public buildings like airports or railway stations; plant engineering, industrial machinery; heating and air conditioning systems, stage applications; in EMC sensitive environments (electromagnetic compatibility)

USE according to UL: FRPE sheathed cable for internal wiring of appliances and external interconnection of electronic equipment.

## Design

|                          |  |
|--------------------------|--|
| Design                   | acc. to UL AWM Style 21089, UL 758 and based on EN 50525-3-11 resp. VDE 0285-525-3-11 EN 50525-2-51 resp. VDE 0285-525-2-51  |
| Certification            | UL AWM Style 21089 (File No. 63634), UL 758<br>GL-Germanischer Lloyd (Certificate No. 11119-14 HH)<br>VDE certified: supply cable with improved characteristics in case of fire and increased oil resistance<br>EN 13501-6 and EN 50575<br>Classification of fire behaviour<br>(article/dimension range see <a href="http://www.lappkabel.com/cpr">www.lappkabel.com/cpr</a> ) |
| Conductor                | fine wire strands of bare copper, acc. to IEC 60228 resp. VDE 0295, Class 5  |
| Insulation               | halogen free compound TI6, polyolefin based, acc. to EN 50363-7 resp. VDE 0207-363-7, with increased requirements  |
| 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   |
| Taping                   | non-woven wrapping optional  |
| Inner sheath             | halogen-free compound TM7, polyolefin based, acc. to EN 50363-8 resp. VDE 0207-363-8 with increased requirements<br>Colour: Silver Grey, similar RAL 7001  |
| Screen                   | braid of tinned copper, coverage = 85% (nominal value)   |
| Outer sheath             | halogen free compound HM2, polyolefin based, acc. to DIN VDE 0250-214, with increased requirements<br>LAPP special compound LP Ultraflex FR<br>Colour: Silver Grey, similar RAL 7001   |

## Electrical properties at 20°C

|               |                         |             |
|---------------|-------------------------|-------------|
| Rated voltage | VDE U <sub>0</sub> / U: | 300 / 500 V |
|               | UL:                     | 600 V       |
| Test voltage  | core / core:            | 4000 V AC   |
|               | core / screen:          | 4000 V AC   |

## Mechanical and thermal properties

|                        |  |  |
|------------------------|--|--|
| Minimum bending radius | occasional flexing:  | 15 x outer diameter                      |
|                        | fixed installation:  | 6 x outer diameter                       |
| Temperature range      | occasional flexing (VDE):  | -30 °C up to +70 °C max. conductor temp. |
|                        | occasional flexing (UL):   | up to +75 °C max. conductor temp.        |
|                        | fixed installation (VDE):  | -40 °C up to +80 °C max. conductor temp. |
|                        | fixed installation (UL):   | up to +75 °C max. conductor temp.        |
| Flammability           | acc. to IEC 60332-1-2 resp. VDE 0482-332-1-2<br>UL: Cable flame test<br>no flame-propagation |  |

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|                      |   |
|----------------------|---|
|                      | acc. to IEC 60332-3-22 resp. VDE 0482-332-3-22<br>acc. to IEC 60332-3-24 resp. VDE 0482-332-3-24 or<br>acc. to IEC 60332-3-25 resp. VDE 0482-332-3-25 |
| Halogen free         | acc. to IEC 60754-1 resp. VDE 0482-754-1  |
| Corrosivity of gases | acc. to IEC 60754-2 resp. VDE 0482-754-2  |
| Smoke density        | acc. to IEC 61034-2 resp. EN 61034-2  |
| Toxicity             | acc. to NES 713-3, EN 50306-1 (≤ 3)   |
| UV resistance        | acc. to EN 50620 resp. VDE 0285-620<br>acc. to EN ISO 4892-2-2013, method A (change of colour allowed)  |
| Ozone resistance     | acc. to EN 50396 resp. VDE 0473-396, method B   |
| Oil resistance       | acc. to EN 50363-4-1 resp. VDE 0207-363-4-1 (TM5)<br>UL OIL RES I und OIL RES II  |
| Tests                | acc. to IEC 60811, EN 50395, EN 50396, UL 1581  |
| General requirements | These cables are conform to the EU-Directive 2014/35/EU (Low Voltage Directive).  |

A part of these cables (see [www.lappkabel.com/cpr](http://www.lappkabel.com/cpr)) are classified in accordance with the EU-Regulation no. 305/2011 (CPR).

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