

10035030	DATA SHEET	 LAPP
valid from: 19.05.2025	ÖLFLEX® CLASSIC 110 CH	

Application

ÖLFLEX® CLASSIC 110 CH are screened, halogen free, oil resistant, highly flame retardant 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. They are suitable for permanent outdoor use if the indicated temperature range is observed. They are suitable for occasional, non-automated movements. The maximum tensile load is 15 N/mm² 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 acc. to UL: FRPE sheathed cable for internal wiring of appliances and external interconnection of electronic equipment.

Design

Design	acc. to UL 758 AWM Style 21089 and based on EN 50525-3-11 and EN 50525-2-51
Certification	UL AWM Style 21089 (File No. E63634) DNV Certificate No. TAE0000408 or TAE00003NM VDE certified: control cable with improved characteristics in case of fire and increased oil resistance EN 13501-6 and EN 50575 Classification of fire behaviour (article/dimension range see www.lappkabel.com/cpr)
Conductor	fine wire strands of bare copper, acc. to IEC 60228 resp. EN IEC 60228, class 5
Insulation	halogen free compound TI6, acc. to EN 50363-7, with increased requirements
Core identification code	acc. to VDE 0293-1, with or without GN/YE ground conductor black cores with white numbers acc. to EN 50334
Cable assembly	cores are stranded in layers
Inner sheath	halogen-free compound TM7, polyolefin based, acc. to EN 50363-8 with increased requirements Colour: silver grey, similar RAL 7001
Screen	braid of tinned copper, coverage = 85% (nominal value)
Outer sheath	halogen free compound HM2, acc. to VDE 0250-214, with increased requirements Colour: Silver Grey, similar RAL 7001

Electrical properties at 20 °C

Nominal voltage	EN U ₀ /U: 300/500 V
Rated voltage	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 (EN): -30 °C up to +70 °C max. conductor temperature occasional flexing (UL): up to +75 °C max. conductor temperature fixed installation (EN): -40 °C up to +80 °C max. conductor temperature fixed installation (UL): up to +75 °C max. conductor temperature
Flammability	flame retardant acc. to IEC 60332-1-2 resp. EN 60332-1-2 UL: Cable flame test acc. to UL 1581 §1061 no flame-propagation acc. to IEC 60332-3-22 resp. EN 60332-3-22 acc. to IEC 60332-3-24 resp. EN 60332-3-24 or acc. to IEC 60332-3-25 resp. EN 60332-3-25

AbN
automation

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Halogen free	acc. to IEC 60754-1 resp. EN 60754-1
Corrosivity of gases	acc. to IEC 60754-2 resp. EN 60754-2
Smoke density	acc. to IEC 61034-2 resp. EN 61034-2
Toxicity	acc. to EN 50306-1 (≤ 6)
UV resistance	acc. to EN 50618 acc. to EN 50620 acc. to EN ISO 4892-2-2013, method A (change of colour allowed)
Ozone resistance	acc. to EN 50396, method B
Oil resistance	acc. to EN 50363-4-1 (TM5) UL OIL RES I und OIL RES II

Tests

acc. to IEC 60811 resp. EN 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) are classified in accordance with the EU-Regulation no. 305/2011 (CPR).

Environmental information

These cables meet the substance-specific requirements of the EU Directive 2011/65/EU (RoHS).

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