

1120831

**DATA SHEET**valid from:  
21.05.2024**ÖLFLEX® CLASSIC PN****LAPP****Application**

ÖLFLEX® CLASSIC PN cables are colour coded control cables for occasional flexible use and fixed installation for medium mechanical use. They are suitable for use in dry, damp and wet areas and are space-saving due to smaller cable diameters. If using outdoors, observe the indicated temperature range and use with UV protection. They are largely resistant to acids, alkalis and certain oils at room temperature. ÖLFLEX® CLASSIC PN cables are suitable for occasional, non-automated movements. They meet the requirements for slow rotational movements, such as in the loop of a wind turbine. The maximum tensile load is 15 N/mm<sup>2</sup> of conductor cross-section during installation and operation. Compulsory guidance is not permitted.

They are specially designed for use in PROFINET energy supply.

Pink core: functional earth acc. to EN 60445, Annex A.

Application range: ÖLFLEX® CLASSIC PN cables are particularly used as control cable in industrial machinery, plant engineering and factory automation.

**Design**

Design	based on EN 50525-2-51
Certification	EN 13501-6 and EN 50575 Classification of fire behaviour (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. EN 60228, class 5
Insulation	PVC compound TI2 acc. to EN 50363-3 with increased requirements acc. to Lapp specification
Core identification code	coloured cores acc. to PPROFINET Guideline: 3 cores: BN, BU, PK 4 cores: BN, BU, BK, WH 5 cores: BN, BU, BK, WH, PK
Stranding	cores are stranded in layers
Outer sheath	PVC compound TM2 acc. to EN 50363-4-1 with increased requirements acc. to LAPP specification colour: silver grey, similar RAL 7001

**Electrical properties at 20 °C**

Specific volume resistivity	> 20 G Ω x cm
Nominal 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 outer diameter fixed installation: 4 x outer diameter
Temperature range	occasional flexing: -5 °C up to +70 °C max. conductor temp. fixed installation: -40 °C up to +80 °C max. conductor temp.
Torsional stress	Torsion movement in wind turbine generators TW-0 (5000 cycles at ≥ 5 °C) TW-1 (2000 cycles at ≥ 20 °C) ±150 °/m at 1 revolution per minute
Flammability	flame retardant acc. to IEC 60332-1-2 resp. EN 60332-1-2

**Tests**

acc. to IEC 60811 resp. EN 60811, EN 50395, EN 50396

**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).**Environmental information**

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

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