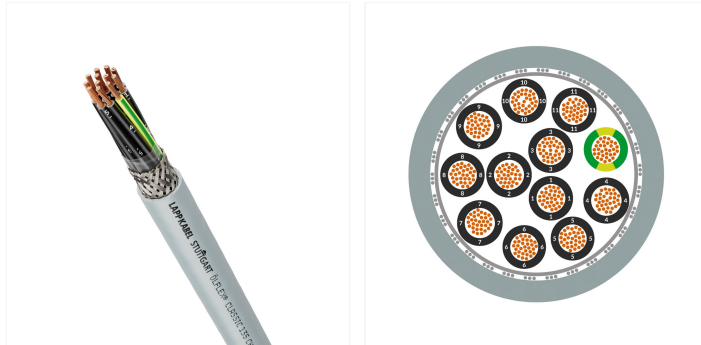


ÖLFLEX® CLASSIC 135 CH 4X1,5

Article No.: 1123310

Power and control cable; 4X1.5; U_0/U : 300/500 V; HFFR; Core identification: Numbers; Shielded; UL recognized; Flexible



Details

Benefits

- Easy handling and installation due to the flexible variant.
- Space-saving due to small outer diameters.
- Halogen free and highly flame retardant materials reduce the risk of flame propagation, high smoke density and toxic flue gases in the event of a fire.
- Ideal protection against electromagnetic interference thanks to copper shielding braiding with a high degree of coverage.
- Classified fire behavior according to EU Directive 305/2011 (BauPVO/CPR) with article number selection on the LAPP website.
- High electrical safety thanks to 4000 V test voltage.
- UL certification according to technical data enables the product to be used on the North American market.

Application

- For structured building cabling for fulfilling special fire protection requirements.
- For universal use for wiring machine-internal and cross-plant control circuits.
- Especially for environments where electromagnetic compatibility (EMC) is required.
- For fixed installation and occasional flexing without tensile strain.
- Can be used in dry and damp environments.

- Suitable for medium mechanical stress.
- The HFFR outer jacket is highly resistant to acids and alkaline solutions.
- Suitable for outdoor use, subject to the temperature range.
- Flexible use at temperatures down to -25°C.

Notes

Inductance and operating capacitance are neither defined nor controlled electrical parameters. The specified values were determined by calculation and may deviate due to tolerances.

Unless specified otherwise, the product values shown are rated values at room temperature. You can receive additional values, such as tolerances, upon request if they are available and have been released for publication.

Photographs and graphics are not to scale and do not represent detailed images of the respective products.

The absence of PWIS raw materials does not protect against the potential risk of contamination with substances that interfere with the paint wetting during subsequent handling of the product(s) during transport, storage or further processing after delivery.

If applicable, the prices are solid metal prices without additional charges and VAT. Sales only to business customers.

Remarks

Technical Data

General information

Brand	ÖLFLEX®
Product type	Power and control cable
Copper index	671.97 lb/10000 ft
Industry segment	Assembly Machines Automotive Food & Beverage Healthcare & Pharma Heating, Ventilation, Air Conditioning & Refrigeration Intralogistics & Material handling Lifts & Elevators Machine Tools Robotics Ships & boats

Electrical parameters

Nominal voltage	U_0/U : 300/500 V AC rms / DC according to IEC
Rated voltage	600 V AC rms according to UL AWM
Test voltage conductor/conductor	4 kV
Test voltage conductor/shielding	2 kV

Product design

Cable dimension	4X1.5
Nominal cross section conductor (mm ²)	1.5 mm ²
Nominal cross section conductor (AWG)	16 AWG
Leading conductor cross-section	mm ²
Conductor material	Bare Copper
Conductor design	IEC 60228 class 5: fine-wire
Including protective ground	No
Number of cores	4
Stranding type	Layered Stranding
Wrapping above stranding	Halogen-free plastic film
Shielded	Yes
Type of overall shielding	Tin-plated copper braiding
Nominal outer diameter	0.331 in
Cable form	Round
Core insulation base material	Halogen-free compound
Conductor insulation basic material, short form	HFFR
Basic material of outer jacket	Halogen-free compound
Base material of outer sheath, shortname	HFFR
Outer jacket color	gray
Core identification	Numbers
Conductor color code	VDE 0293-1 EN 50334

Product features

Application area	Flexible Fixed Installation
For torsional load	No
Minimum bending radius, stationary	6 x outer diameter
Minimum bending radius in inch, fixed installation	1.984 in
Minimum bending radius, occasionally moved	20 x outer diameter
Minimum bending radius in mm, occasionally moved	6.614 in
Temperature, fixed installation	-40 °C to 80 °C max. conductor temperature to 75 °C max. conductor temperature according to UL AWM
Temperature, occasionally moved	to 75 °C max. conductor temperature according to UL AWM -25 °C to 70 °C max. conductor temperature
Flame-retardant	Yes
Flame retardance according to	IEC 60332-1-2 IEC 60332-3-22 IEC 60332-3-25 UL Horizontal Flame Test
low smoke density according to	IEC 61034-2
low toxicity of combustion gases	NES 02-713 (≤ 3)
Corrosiveness of combustion gases according to	IEC 60754-2
UV-resistant	Yes
UV-resistant according to	DIN EN ISO 4892-2 method A EN 50620
Ozone-resistant	Yes
ozone resistant according to	EN 50396, method B

Halogenfree	Yes
Halogen-free according to	IEC 60754-1
Oil resistant	No
PWIS-free	Yes
PWIS-free according to	VDMA 24364-B2-L

Certifications and standards

CE marking	Yes
EAC certified	Yes
EAC certification number	EAЭC N RU Д-DE.АЮ64.В.00130/20
UL recognized	Yes
UL AWM certification	21217 according to UL 758 (e-file number: E63634)
UL listed	No
cUR recognized	No
cUL listed	No
CSA certified	No
VDE certified	No
DNV-certified	No
CPR fire class	Dca
CPR smoke density	s1b
CPR droplets	d2
CPR acidity	a1
Resistance to flame propagation tested according to UN/ECE-R118	No
Tested for fire protection for railway vehicles	No

ÖLFLEX® CLASSIC 135 CH

Article No.	Name	Number of cores	Including protective ground	Nominal cross section conductor (mm ²)	Nominal outer diameter	Copper index	CPR fire class
1123200	ÖLFLEX® CLASSIC 135 CH 2X0,5	2	No	0.5 mm ²	0.232 in	241.91 lb/10000 ft	Dca
1123201	ÖLFLEX® CLASSIC 135 CH 3G0,5	3	Yes	0.5 mm ²	0.244 in	288.9 lb/10000 ft	Dca
1123202	ÖLFLEX® CLASSIC 135 CH 3X0,5	3	No	0.5 mm ²	0.244 in	290 lb/10000 ft	Dca
1123203	ÖLFLEX® CLASSIC 135 CH 4G0,5	4	Yes	0.5 mm ²	0.26 in	329.2 lb/10000 ft	Dca
1123204	ÖLFLEX® CLASSIC 135 CH 4X0,5	4	No	0.5 mm ²	0.26 in	329.26 lb/10000 ft	Dca
1123205	ÖLFLEX® CLASSIC 135 CH 5G0,5	5	Yes	0.5 mm ²	0.28 in	383.02 lb/10000 ft	Dca
1123206	ÖLFLEX® CLASSIC 135 CH 5X0,5	5	No	0.5 mm ²	0.28 in	383.02 lb/10000 ft	Dca
1123208	ÖLFLEX® CLASSIC 135 CH 7G0,5	7	Yes	0.5 mm ²	0.303 in	463.66 lb/10000 ft	Dca
1123209	ÖLFLEX® CLASSIC 135 CH 7X0,5	7	No	0.5 mm ²	0.303 in	463.66 lb/10000 ft	Dca
1123213	ÖLFLEX® CLASSIC 135 CH 12G0,5	12	Yes	0.5 mm ²	0.398 in	698.85 lb/10000 ft	Dca
1123217	ÖLFLEX® CLASSIC 135 CH 18G0,5	18	Yes	0.5 mm ²	0.465 in	947.48 lb/10000 ft	Dca
1123220	ÖLFLEX® CLASSIC 135 CH 25G0,5	25	Yes	0.5 mm ²	0.539 in	1505.21 lb/10000 ft	Dca
1123232	ÖLFLEX® CLASSIC 135 CH 2X0,75	2	No	0.75 mm ²	0.248 in	288.95 lb/10000 ft	Dca
1123233	ÖLFLEX® CLASSIC 135 CH 3G0,75	3	Yes	0.75 mm ²	0.26 in	349.42 lb/10000 ft	Dca
1123234	ÖLFLEX® CLASSIC 135 CH 3X0,75	3	No	0.75 mm ²	0.26 in	349.42 lb/10000 ft	Dca
1123235	ÖLFLEX® CLASSIC 135 CH 4G0,75	4	Yes	0.75 mm ²	0.28 in	409.9 lb/10000 ft	Dca
1123236	ÖLFLEX® CLASSIC 135 CH 4X0,75	4	No	0.75 mm ²	0.28 in	409.9 lb/10000 ft	Dca
1123237	ÖLFLEX® CLASSIC 135 CH 5G0,75	5	Yes	0.75 mm ²	0.311 in	483.82 lb/10000 ft	Dca
1123238	ÖLFLEX® CLASSIC 135 CH 5X0,75	5	No	0.75 mm ²	0.311 in	483.82 lb/10000 ft	Dca
1123241	ÖLFLEX® CLASSIC 135 CH 7G0,75	7	Yes	0.75 mm ²	0.335 in	598 lb/10000 ft	Dca
1123247	ÖLFLEX® CLASSIC 135 CH 12G0,75	12	Yes	0.75 mm ²	0.437 in	927.22 lb/10000 ft	Dca
1123248	ÖLFLEX® CLASSIC 135 CH 12X0,75	12	No	0.75 mm ²	0.437 in	927.32 lb/10000 ft	Dca
1123251	ÖLFLEX® CLASSIC 135 CH 18G0,75	18	Yes	0.75 mm ²	0.512 in	1417.85 lb/10000 ft	Dca
1123266	ÖLFLEX® CLASSIC 135 CH 2X1	2	No	1 mm ²	0.26 in	342.7 lb/10000 ft	Dca
1123267	ÖLFLEX® CLASSIC 135 CH 3G1	3	Yes	1 mm ²	0.272 in	416.58 lb/10000 ft	Dca
1123268	ÖLFLEX® CLASSIC 135 CH 3X1	3	No	1 mm ²	0.272 in	416.62 lb/10000 ft	Dca
1123269	ÖLFLEX® CLASSIC 135 CH 4G1	4	Yes	1 mm ²	0.291 in	497.21 lb/10000 ft	Dca
1123270	ÖLFLEX® CLASSIC 135 CH 4X1	4	No	1 mm ²	0.291 in	497.26 lb/10000 ft	Dca
1123271	ÖLFLEX® CLASSIC 135 CH 5G1	5	Yes	1 mm ²	0.327 in	591.3 lb/10000 ft	Dca
1123272	ÖLFLEX® CLASSIC 135 CH 5X1	5	No	1 mm ²	0.327 in	591.3 lb/10000 ft	Dca

Article No.	Name	Number of cores	Including protective ground	Nominal cross section conductor (mm ²)	Nominal outer diameter	Copper index	CPR fire class
1123274	ÖLFLEX® CLASSIC 135 CH 7G1	7	Yes	1 mm ²	0.35 in	752.5 lb/10000 ft	Dca
1123275	ÖLFLEX® CLASSIC 135 CH 7X1	7	No	1 mm ²	0.35 in	752.61 lb/10000 ft	Dca
1123280	ÖLFLEX® CLASSIC 135 CH 12G1	12	Yes	1 mm ²	0.461 in	1243 lb/10000 ft	Dca
1123281	ÖLFLEX® CLASSIC 135 CH 12X1	12	No	1 mm ²	0.461 in	1243.14 lb/10000 ft	Dca
1123284	ÖLFLEX® CLASSIC 135 CH 18G1	18	Yes	1 mm ²	0.555 in	1800.7 lb/10000 ft	Dca
1123290	ÖLFLEX® CLASSIC 135 CH 25G1	25	Yes	1 mm ²	0.638 in	2378.5 lb/10000 ft	Dca
1123291	ÖLFLEX® CLASSIC 135 CH 25X1	25	No	1 mm ²	0.638 in	2378.5 lb/10000 ft	Dca
1123306	ÖLFLEX® CLASSIC 135 CH 2X1,5	2	No	1.5 mm ²	0.283 in	436.78 lb/10000 ft	Dca
1123307	ÖLFLEX® CLASSIC 135 CH 3G1,5	3	Yes	1.5 mm ²	0.299 in	551 lb/10000 ft	Dca
1123308	ÖLFLEX® CLASSIC 135 CH 3X1,5	3	No	1.5 mm ²	0.299 in	551.01 lb/10000 ft	Dca
1123309	ÖLFLEX® CLASSIC 135 CH 4G1,5	4	Yes	1.5 mm ²	0.331 in	671.97 lb/10000 ft	Dca
1123310	ÖLFLEX® CLASSIC 135 CH 4X1,5	4	No	1.5 mm ²	0.331 in	671.97 lb/10000 ft	Dca
1123311	ÖLFLEX® CLASSIC 135 CH 5G1,5	5	Yes	1.5 mm ²	0.358 in	799.64 lb/10000 ft	Dca
1123314	ÖLFLEX® CLASSIC 135 CH 7G1,5	7	Yes	1.5 mm ²	0.394 in	1034.83 lb/10000 ft	Dca
1123315	ÖLFLEX® CLASSIC 135 CH 7X1,5	7	No	1.5 mm ²	0.394 in	1034.84 lb/10000 ft	Dca
1123320	ÖLFLEX® CLASSIC 135 CH 12G1,5	12	Yes	1.5 mm ²	0.528 in	1800.88 lb/10000 ft	Dca
1123324	ÖLFLEX® CLASSIC 135 CH 18G1,5	18	Yes	1.5 mm ²	0.622 in	2506.44 lb/10000 ft	Dca
1123328	ÖLFLEX® CLASSIC 135 CH 25G1,5	25	Yes	1.5 mm ²	0.717 in	3561.43 lb/10000 ft	Dca
1123339	ÖLFLEX® CLASSIC 135 CH 2X2,5	2	No	2.5 mm ²	0.339 in	645.09 lb/10000 ft	Dca
1123340	ÖLFLEX® CLASSIC 135 CH 3G2,5	3	Yes	2.5 mm ²	0.358 in	792.8 lb/10000 ft	Dca
1123342	ÖLFLEX® CLASSIC 135 CH 4G2,5	4	Yes	2.5 mm ²	0.394 in	987.7 lb/10000 ft	Dca
1123344	ÖLFLEX® CLASSIC 135 CH 5G2,5	5	Yes	2.5 mm ²	0.437 in	1182.67 lb/10000 ft	Dca
1123346	ÖLFLEX® CLASSIC 135 CH 7G2,5	7	Yes	2.5 mm ²	0.472 in	1700.08 lb/10000 ft	Dca
1123349	ÖLFLEX® CLASSIC 135 CH 12G2,5	12	Yes	2.5 mm ²	0.642 in	2587.08 lb/10000 ft	Dca
1123359	ÖLFLEX® CLASSIC 135 CH 3G4	3	Yes	4 mm ²	0.417 in	1196.1 lb/10000 ft	Dca
1123360	ÖLFLEX® CLASSIC 135 CH 4G4	4	Yes	4 mm ²	0.465 in	1666.3 lb/10000 ft	Dca
1123366	ÖLFLEX® CLASSIC 135 CH 3G6	3	Yes	6 mm ²	0.5 in	1612.6 lb/10000 ft	Dca
1123367	ÖLFLEX® CLASSIC 135 CH 4G6	4	Yes	6 mm ²	0.559 in	2304.6 lb/10000 ft	Dca
1123372	ÖLFLEX® CLASSIC 135 CH 4G10	4	Yes	10 mm ²	0.677 in	3325.9 lb/10000 ft	Dca
1123373	ÖLFLEX® CLASSIC 135 CH 5G10	5	Yes	10 mm ²	0.768 in	3978.06 lb/10000 ft	Dca

V1.1