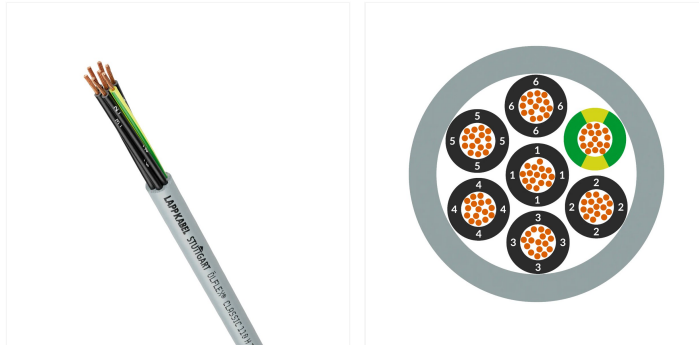


ÖLFLEX® CLASSIC 110 H 4X1

Article No.: 10019964

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



Details

Benefits

- 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.
- 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.
- VDE-tested fire behavior.

Application

- For structured building cabling for fulfilling special fire protection requirements.
- For universal use for wiring machine-internal and cross-plant control circuits.
- 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.
- Flexible use at temperatures down to -30°C.

Notes

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

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

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.

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.

Remarks

Technical Data

General information

Brand	ÖLFLEX®
Product type	Power and control cable
Copper index	258.04 lb/10000 ft
Industry segment	<ul style="list-style-type: none"> Agricultural & Farm Machinery Assembly Machines Automotive Construction Machinery Energy Food & Beverage Healthcare & Pharma Heating, Ventilation, Air Conditioning & Refrigeration Intralogistics & Material handling Lifts & Elevators Machine Tools Packaging Process Industry Robotics Rolling Stock Ships & boats Solar

Electrical parameters

Nominal voltage	U_0/U : 300/500 V AC rms according to IEC
Rated voltage	600 V AC rms according to UL AWM
test voltage	4 kV

Product design

Cable dimension	4X1
Nominal cross section conductor (mm ²)	1 mm ²
Nominal cross section conductor (AWG)	18 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
Shielded	No
Nominal outer diameter	0.26 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	4 x outer diameter

Minimum bending radius in inch, fixed installation	1.039 in
Minimum bending radius, occasionally moved	10 x outer diameter
Minimum bending radius in mm, occasionally moved	2.598 in
Temperature, fixed installation	to 75 °C max. conductor temperature according to UL AWM -40 °C to 80 °C max. conductor temperature
Temperature, occasionally moved	to 75 °C max. conductor temperature according to UL AWM -30 °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 Cable Flame Test
low smoke density according to	IEC 61034-2
low toxicity of combustion gases	NES 02-713 (≤ 3) EN 50306-1 (≤ 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 EN 50618
Ozone-resistant	Yes
ozone resistant according to	EN 50396, method B
Halogenfree	Yes
Halogen-free according to	IEC 60754-1
Oil resistant	Yes
Oil resistance according to	EN 50363-4-1: TM5 UL OILRES I UL OILRES II
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	21089 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	Cca
CPR smoke density	s1
CPR droplets	d1
CPR acidity	a1
Resistance to flame propagation tested according to UN/ECE-R118	No
Tested for fire protection for railway vehicles	No

ÖLFLEX® CLASSIC 110 H

Article No.	Name	Number of cores	Including protective ground	Nominal cross section conductor (mm ²)	Nominal outer diameter	Copper index	CPR fire class
10019849	ÖLFLEX® CLASSIC 110 H 4G16	4	Yes	16 mm ²	0.74 in	4128.2 lb/10000 ft	Cca
10019851	ÖLFLEX® CLASSIC 110 H 4G10	4	Yes	10 mm ²	0.638 in	2580.1 lb/10000 ft	Cca
10019852	ÖLFLEX® CLASSIC 110 H 5G10	5	Yes	10 mm ²	0.713 in	3225.1 lb/10000 ft	Cca
10019853	ÖLFLEX® CLASSIC 110 H 5G16	5	Yes	16 mm ²	0.835 in	5160.72 lb/10000 ft	Cca
10019854	ÖLFLEX® CLASSIC 110 H 4G25	4	Yes	25 mm ²	0.925 in	6450.2 lb/10000 ft	Cca
10019856	ÖLFLEX® CLASSIC 110 H 4G35	4	Yes	35 mm ²	1.047 in	9030.3 lb/10000 ft	Cca
10019900	ÖLFLEX® CLASSIC 110 H 2X0,5	2	No	0.5 mm ²	0.201 in	64.5 lb/10000 ft	Cca
10019901	ÖLFLEX® CLASSIC 110 H 3G0,5	3	Yes	0.5 mm ²	0.213 in	96.75 lb/10000 ft	Cca
10019902	ÖLFLEX® CLASSIC 110 H 3X0,5	3	No	0.5 mm ²	0.213 in	96.8 lb/10000 ft	Cca
10019903	ÖLFLEX® CLASSIC 110 H 4G0,5	4	Yes	0.5 mm ²	0.228 in	129 lb/10000 ft	
10019904	ÖLFLEX® CLASSIC 110 H 4X0,5	4	No	0.5 mm ²	0.228 in	129.02 lb/10000 ft	
10019905	ÖLFLEX® CLASSIC 110 H 5G0,5	5	Yes	0.5 mm ²	0.248 in	161.25 lb/10000 ft	
10019906	ÖLFLEX® CLASSIC 110 H 7G0,5	7	Yes	0.5 mm ²	0.272 in	225.75 lb/10000 ft	
10019907	ÖLFLEX® CLASSIC 110 H 12G0,5	12	Yes	0.5 mm ²	0.358 in	387 lb/10000 ft	
10019910	ÖLFLEX® CLASSIC 110 H 2X0,75	2	No	0.75 mm ²	0.217 in	96.8 lb/10000 ft	Cca
10019911	ÖLFLEX® CLASSIC 110 H 3G0,75	3	Yes	0.75 mm ²	0.228 in	145.1 lb/10000 ft	Cca
10019912	ÖLFLEX® CLASSIC 110 H 3X0,75	3	No	0.75 mm ²	0.228 in	145.1 lb/10000 ft	Cca
10019913	ÖLFLEX® CLASSIC 110 H 4G0,75	4	Yes	0.75 mm ²	0.248 in	193.5 lb/10000 ft	Cca
10019914	ÖLFLEX® CLASSIC 110 H 4X0,75	4	No	0.75 mm ²	0.248 in	193.5 lb/10000 ft	Cca
10019915	ÖLFLEX® CLASSIC 110 H 5G0,75	5	Yes	0.75 mm ²	0.272 in	241.91 lb/10000 ft	
10019916	ÖLFLEX® CLASSIC 110 H 5X0,75	5	No	0.75 mm ²	0.272 in	241.9 lb/10000 ft	
10019917	ÖLFLEX® CLASSIC 110 H 7G0,75	7	Yes	0.75 mm ²	0.295 in	338.67 lb/10000 ft	
10019918	ÖLFLEX® CLASSIC 110 H 7X0,75	7	No	0.75 mm ²	0.295 in	338.64 lb/10000 ft	
10019919	ÖLFLEX® CLASSIC 110 H 9G0,75	9	Yes	0.75 mm ²	0.378 in	435.4 lb/10000 ft	
10019920	ÖLFLEX® CLASSIC 110 H 12G0,75	12	Yes	0.75 mm ²	0.398 in	580.5 lb/10000 ft	
10019921	ÖLFLEX® CLASSIC 110 H 18G0,75	18	Yes	0.75 mm ²	0.472 in	870.8 lb/10000 ft	
10019922	ÖLFLEX® CLASSIC 110 H 25G0,75	25	Yes	0.75 mm ²	0.555 in	1209.54 lb/10000 ft	
10019927	ÖLFLEX® CLASSIC 110 H 34G1,5	34	Yes	1.5 mm ²	0.78 in	3289.96 lb/10000 ft	
10019930	ÖLFLEX® CLASSIC 110 H 2X1,5	2	No	1.5 mm ²	0.252 in	193.5 lb/10000 ft	Cca
10019931	ÖLFLEX® CLASSIC 110 H 3G1,5	3	Yes	1.5 mm ²	0.268 in	290.26 lb/10000 ft	Cca

Article No.	Name	Number of cores	Including protective ground	Nominal cross section conductor (mm ²)	Nominal outer diameter	Copper index	CPR fire class
10019932	ÖLFLEX® CLASSIC 110 H 4G1,5	4	Yes	1.5 mm ²	0.291 in	387 lb/10000 ft	Cca
10019933	ÖLFLEX® CLASSIC 110 H 5G1,5	5	Yes	1.5 mm ²	0.327 in	483.8 lb/10000 ft	Cca
10019934	ÖLFLEX® CLASSIC 110 H 7G1,5	7	Yes	1.5 mm ²	0.354 in	677.3 lb/10000 ft	Cca
10019935	ÖLFLEX® CLASSIC 110 H 12G1,5	12	Yes	1.5 mm ²	0.48 in	1161 lb/10000 ft	
10019936	ÖLFLEX® CLASSIC 110 H 14G1,5	14	Yes	1.5 mm ²	0.512 in	1354.6 lb/10000 ft	
10019937	ÖLFLEX® CLASSIC 110 H 18G1,5	18	Yes	1.5 mm ²	0.575 in	1741.6 lb/10000 ft	
10019938	ÖLFLEX® CLASSIC 110 H 25G1,5	25	Yes	1.5 mm ²	0.677 in	2418.8 lb/10000 ft	
10019944	ÖLFLEX® CLASSIC 110 H 2X2,5	2	No	2.5 mm ²	0.299 in	322.5 lb/10000 ft	Cca
10019945	ÖLFLEX® CLASSIC 110 H 3G2,5	3	Yes	2.5 mm ²	0.327 in	483.76 lb/10000 ft	Cca
10019946	ÖLFLEX® CLASSIC 110 H 4G2,5	4	Yes	2.5 mm ²	0.354 in	645 lb/10000 ft	Cca
10019947	ÖLFLEX® CLASSIC 110 H 5G2,5	5	Yes	2.5 mm ²	0.398 in	806.3 lb/10000 ft	Cca
10019948	ÖLFLEX® CLASSIC 110 H 7G2,5	7	Yes	2.5 mm ²	0.441 in	1128.8 lb/10000 ft	Cca
10019949	ÖLFLEX® CLASSIC 110 H 12G2,5	12	Yes	2.5 mm ²	0.594 in	1935.1 lb/10000 ft	Cca
10019950	ÖLFLEX® CLASSIC 110 H 4G4	4	Yes	4 mm ²	0.425 in	1032.03 lb/10000 ft	Cca
10019951	ÖLFLEX® CLASSIC 110 H 5G4	5	Yes	4 mm ²	0.476 in	1290 lb/10000 ft	Cca
10019952	ÖLFLEX® CLASSIC 110 H 7G4	7	Yes	4 mm ²	0.528 in	1806.1 lb/10000 ft	Cca
10019953	ÖLFLEX® CLASSIC 110 H 4G6	4	Yes	6 mm ²	0.512 in	1548.1 lb/10000 ft	Cca
10019954	ÖLFLEX® CLASSIC 110 H 5G6	5	Yes	6 mm ²	0.571 in	1935.1 lb/10000 ft	Cca
10019960	ÖLFLEX® CLASSIC 110 H 2X1	2	No	1 mm ²	0.228 in	129 lb/10000 ft	Cca
10019961	ÖLFLEX® CLASSIC 110 H 3G1	3	Yes	1 mm ²	0.24 in	193.5 lb/10000 ft	Cca
10019962	ÖLFLEX® CLASSIC 110 H 3X1	3	No	1 mm ²	0.24 in	193.5 lb/10000 ft	Cca
10019963	ÖLFLEX® CLASSIC 110 H 4G1	4	Yes	1 mm ²	0.26 in	258 lb/10000 ft	Cca
10019964	ÖLFLEX® CLASSIC 110 H 4X1	4	No	1 mm ²	0.26 in	258.04 lb/10000 ft	Cca
10019965	ÖLFLEX® CLASSIC 110 H 5G1	5	Yes	1 mm ²	0.287 in	322.5 lb/10000 ft	Cca
10019967	ÖLFLEX® CLASSIC 110 H 7G1	7	Yes	1 mm ²	0.319 in	451.5 lb/10000 ft	
10019968	ÖLFLEX® CLASSIC 110 H 8G1	8	Yes	1 mm ²	0.382 in	516.07 lb/10000 ft	
10019969	ÖLFLEX® CLASSIC 110 H 12G1	12	Yes	1 mm ²	0.421 in	774.02 lb/10000 ft	
10019970	ÖLFLEX® CLASSIC 110 H 14G1	14	Yes	1 mm ²	0.449 in	903.13 lb/10000 ft	
10019971	ÖLFLEX® CLASSIC 110 H 18G1	18	Yes	1 mm ²	0.508 in	1161 lb/10000 ft	
10019972	ÖLFLEX® CLASSIC 110 H 25G1	25	Yes	1 mm ²	0.591 in	1612.6 lb/10000 ft	

Article No.	Name	Number of cores	Including protective ground	Nominal cross section conductor (mm ²)	Nominal outer diameter	Copper index	CPR fire class
10019973	ÖLFLEX® CLASSIC 110 H 41G1	41	Yes	1 mm ²	0.756 in	2644.87 lb/10000 ft	
10019975	ÖLFLEX® CLASSIC 110 H 7G6	7	Yes	6 mm ²	0.63 in	2709.1 lb/10000 ft	Cca
10019980	ÖLFLEX® CLASSIC 110 H 3X1,5	3	No	1.5 mm ²	0.268 in	290.3 lb/10000 ft	Cca
10019981	ÖLFLEX® CLASSIC 110 H 8G1,5	8	Yes	1.5 mm ²	0.425 in	774.11 lb/10000 ft	Cca
10019982	ÖLFLEX® CLASSIC 110 H 9G1,5	9	Yes	1.5 mm ²	0.457 in	870.87 lb/10000 ft	

V1.1