

## ÖLFLEX® FD 891 P 4G1,5

**Article No.:** 1028304

Power and control cable; 4G1.5; Core-Line;  $U_0/U$ : 300/500 V; PUR; Core identification: Numbers; UL recognized; Cable chain



### Details

#### Benefits

- Highly flexible cable design means excellent product performance.
- Durable cable chain use with medium travel distances or increased acceleration (LAPP performance class “Core Line”).
- Durable, resistant product thanks to the outer jacket PUR material that is resistant to abrasions, notches and cuts.
- Shorter conductor stranding allows very small bending radii.
- UL/CSA certification according to technical data enables the product to be used on the North American market.
- Product with multiple certifications enables universal use and reduces the variety of parts, thus guaranteeing logistics savings.
- Classified fire behavior according to EU Directive 305/2011 (BauPVO/CPR) with article number selection on the LAPP website.

#### Application

- Cable design allows highly flexible, continuously flexing use in moving machine parts and in the cable chain.
- For use in control, regulating and measurement circuits.
- Can be used in dry, damp or wet environments.
- The PUR outer jacket withstands high mechanical stress.

- The PUR outer jacket is resistant to mineral oil-based lubricants and highly resistant to chemicals.
- Suitable for outdoor use, subject to the temperature range.

### 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

When used in cable chains: please follow the T3 technical assembly guidelines

Bending cycles and usage parameters: please refer to the A2-1 selection table

### Technical Data

#### General information

Brand	ÖLFLEX®
Product type	Power and control cable
Copper index	387 lb/10000 ft
Performance class	Core-Line
Industry segment	Assembly Machines

#### 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 600 V AC rms according to cRU AWM
test voltage	4 kV
Current rating according to	VDE 0298-4

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**Product design**

Cable dimension	4G1.5
Nominal cross section conductor (mm <sup>2</sup> )	1.5 mm <sup>2</sup>
Nominal cross section conductor (AWG)	16 AWG
Leading conductor cross-section	mm <sup>2</sup>
Conductor material	Bare Copper
Conductor design	IEC 60228 class 6: extra-fine wire
Including protective ground	Yes
Number of cores	4
Stranding type	Layered Stranding
Wrapping above stranding	Fleece Wrapping
Shielded	No
Nominal outer diameter	0.366 in
Cable form	Round
Core insulation base material	Polyvinylchloride
Conductor insulation basic material, short form	PVC
Basic material of outer jacket	Polyurethane
Base material of outer sheath, shortname	PUR
Outer jacket color	black

Colour outer sheath RAL code	RAL 9005
Core identification	Numbers
Conductor color code	EN 50334 VDE 0293-1

**Product features**

Application area	Cable chain Flexible
For permanent bending	Yes
For torsional load	No
Minimum bending radius, stationary	4 x outer diameter
Minimum bending radius in inch, fixed installation	1.465 in
Minimum bending radius, dynamic continuously flexing	7.5 x outer diameter
Minimum bending radius in inch, dynamic continuously flexing	2.748 in
Minimum bending radius, occasionally moved	7.5 x outer diameter
Minimum bending radius in mm, occasionally moved	2.748 in
Maximum bending cycles	7,000,000
Maximum travel distance	164.042 ft
Maximum speed sliding	16.404 ft/s
Maximum speed unsupported	32.808 ft/s
Maximum acceleration	98.425 ft/s <sup>2</sup>
Temperature, fixed installation	-40 °C to 80 °C max. conductor temperature according to IEC to 80 °C max. conductor temperature according to CSA AWM to 80 °C max. conductor temperature according to UL AWM

Temperature, occasionally moved	-5 °C to 80 °C max. conductor temperature according to UL AWM -5 °C to 80 °C max. conductor temperature according to CSA AWM -5 °C to 70 °C max. conductor temperature according to IEC
temperature, dynamic permanently moved	-5 °C to 80 °C max. conductor temperature according to UL AWM -5 to 70 °C max. conductor temperature according to IEC -5 °C to 80 °C max. conductor temperature according to CSA AWM
Flame-retardant	Yes
Flame retardance according to	IEC 60332-1-2 UL VW-1 CSA FT1
UV-resistant	Yes
UV-resistant according to	EN ISO 4892-2, method A (color change permitted)
weather resistant	Yes
Chemical resistant	Yes
Hydrolysis-resistant	Yes
Halogenfree	No
Oil resistant	Yes
Oil resistance according to	EN 50363-10-2
PWIS-free	Yes
PWIS-free according to	VDMA 24364-B2-L
Low-adhesive jacket surface	Yes

#### Certifications and standards

CE marking	Yes
EAC certified	Yes
EAC certification number	EAЭС N RU Д-DE.АЮ64.В.00130/20
UL recognized	Yes

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UL AWM certification	20234 according to UL 758 (e-file number: E63634) 10012 according to UL 758 (e-file number: E63634)
UL listed	No
cUR recognized	Yes
cUR certification	AWM I B according to CSA C22.2 No. 210 (e-file number: E63634) AWM II B according to CSA C22.2 No. 210 (e-file number: E63634) AWM I A according to CSA C22.2 No. 210 (e-file number: E63634) AWM II A according to CSA C22.2 No. 210 (e-file number: E63634)
cUL listed	No
CSA certified	No
VDE certified	No
DNV-certified	No
Resistance to flame propagation tested according to UN/ECE-R118	No

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**ÖLFLEX® FD 891 P**

Article No.	Name	Number of cores	Including protective ground	Nominal cross section conductor (mm <sup>2</sup> )	Nominal outer diameter	Copper index
1028007	ÖLFLEX® FD 891 P 7G0,5	7	Yes	0.5 mm <sup>2</sup>	0.378 in	225.8 lb/10000 ft
1028103	ÖLFLEX® FD 891 P 3G0,75	3	Yes	0.75 mm <sup>2</sup>	0.287 in	145.13 lb/10000 ft
1028104	ÖLFLEX® FD 891 P 4G0,75	4	Yes	0.75 mm <sup>2</sup>	0.315 in	193.5 lb/10000 ft
1028105	ÖLFLEX® FD 891 P 5G0,75	5	Yes	0.75 mm <sup>2</sup>	0.343 in	241.9 lb/10000 ft
1028107	ÖLFLEX® FD 891 P 7G0,75	7	Yes	0.75 mm <sup>2</sup>	0.398 in	338.6 lb/10000 ft
1028112	ÖLFLEX® FD 891 P 12G0,75	12	Yes	0.75 mm <sup>2</sup>	0.461 in	580.5 lb/10000 ft
1028118	ÖLFLEX® FD 891 P 18G0,75	18	Yes	0.75 mm <sup>2</sup>	0.547 in	870.8 lb/10000 ft
1028125	ÖLFLEX® FD 891 P 25G0,75	25	Yes	0.75 mm <sup>2</sup>	0.654 in	1209.4 lb/10000 ft
1028134	ÖLFLEX® FD 891 P 34G0,75	34	Yes	0.75 mm <sup>2</sup>	0.744 in	1644.8 lb/10000 ft
1028150	ÖLFLEX® FD 891 P 50G0,75	50	Yes	0.75 mm <sup>2</sup>	0.886 in	2418.8 lb/10000 ft
1028303	ÖLFLEX® FD 891 P 3G1,5	3	Yes	1.5 mm <sup>2</sup>	0.331 in	290.26 lb/10000 ft
1028304	ÖLFLEX® FD 891 P 4G1,5	4	Yes	1.5 mm <sup>2</sup>	0.366 in	387 lb/10000 ft
1028305	ÖLFLEX® FD 891 P 5G1,5	5	Yes	1.5 mm <sup>2</sup>	0.398 in	483.76 lb/10000 ft
1028307	ÖLFLEX® FD 891 P 7G1,5	7	Yes	1.5 mm <sup>2</sup>	0.469 in	677.3 lb/10000 ft
1028312	ÖLFLEX® FD 891 P 12G1,5	12	Yes	1.5 mm <sup>2</sup>	0.547 in	1161.04 lb/10000 ft
1028318	ÖLFLEX® FD 891 P 18G1,5	18	Yes	1.5 mm <sup>2</sup>	0.665 in	1741.56 lb/10000 ft
1028325	ÖLFLEX® FD 891 P 25G1,5	25	Yes	1.5 mm <sup>2</sup>	0.791 in	2418.8 lb/10000 ft
1028334	ÖLFLEX® FD 891 P 34G1,5	34	Yes	1.5 mm <sup>2</sup>	0.909 in	3289.6 lb/10000 ft
1028403	ÖLFLEX® FD 891 P 3G2,5	3	Yes	2.5 mm <sup>2</sup>	0.366 in	483.8 lb/10000 ft
1028404	ÖLFLEX® FD 891 P 4G2,5	4	Yes	2.5 mm <sup>2</sup>	0.406 in	645 lb/10000 ft
1028405	ÖLFLEX® FD 891 P 5G2,5	5	Yes	2.5 mm <sup>2</sup>	0.445 in	806.3 lb/10000 ft
1028407	ÖLFLEX® FD 891 P 7G2,5	7	Yes	2.5 mm <sup>2</sup>	0.528 in	1128.8 lb/10000 ft
1028412	ÖLFLEX® FD 891 P 12G2,5	12	Yes	2.5 mm <sup>2</sup>	0.622 in	1935.1 lb/10000 ft
1028503	ÖLFLEX® FD 891 P 3G4	3	Yes	4 mm <sup>2</sup>	0.429 in	774 lb/10000 ft
1028504	ÖLFLEX® FD 891 P 4G4	4	Yes	4 mm <sup>2</sup>	0.476 in	1032.03 lb/10000 ft
1028507	ÖLFLEX® FD 891 P 7G4	7	Yes	4 mm <sup>2</sup>	0.634 in	1806.1 lb/10000 ft
1028604	ÖLFLEX® FD 891 P 4G6	4	Yes	6 mm <sup>2</sup>	0.539 in	1548.1 lb/10000 ft
1028614	ÖLFLEX® FD 891 P 4G10	4	Yes	10 mm <sup>2</sup>	0.705 in	2580.1 lb/10000 ft
1028624	ÖLFLEX® FD 891 P 4G16	4	Yes	16 mm <sup>2</sup>	0.921 in	4128.2 lb/10000 ft
1028634	ÖLFLEX® FD 891 P 4G25	4	Yes	25 mm <sup>2</sup>	1.087 in	6450.2 lb/10000 ft

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Article No.	Name	Number of cores	Including protective ground	Nominal cross section conductor (mm <sup>2</sup> )	Nominal outer diameter	Copper index
1028752	ÖLFLEX® FD 891 P 2X0,5	2	No	0.5 mm <sup>2</sup>	0.256 in	64.5 lb/10000 ft
1028952	ÖLFLEX® FD 891 P 2X2,5	2	No	2.5 mm <sup>2</sup>	0.339 in	322.5 lb/10000 ft

V1.1