

## ÖLFLEX® FD 891 7G1

**Article No.:** 1026128

Power and control cable; 7G1; Core-Line;  $U_0/U$ : 300/500 V; PVC; 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”).
- 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

- The cable design allows 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.
- Suitable for medium mechanical stress.
- 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	451.5 lb/10000 ft
Performance class	Core-Line
Industry segment	Food & Beverage Intralogistics & Material handling Machine Tools Packaging

**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 CSA AWM
test voltage	4 kV
Current rating according to	VDE 0298-4

**Product design**

Cable dimension	7G1
Nominal cross section conductor (mm <sup>2</sup> )	1 mm <sup>2</sup>
Nominal cross section conductor (AWG)	18 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	7
Stranding type	Layered Stranding
Wrapping above stranding	Fleece Wrapping
Shielded	No
Nominal outer diameter	0.413 in
Cable form	Round
Core insulation base material	Polyvinylchloride

Conductor insulation basic material, short form	PVC
Basic material of outer jacket	Polyvinylchloride
Base material of outer sheath, shortname	PVC
Outer jacket color	black
Colour outer sheath RAL code	RAL 9005
Core identification	Numbers

Conductor color code	EN 50334 VDE 0293-1
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**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	1.654 in
Minimum bending radius, dynamic continuously flexing	7.5 x outer diameter
Minimum bending radius in inch, dynamic continuously flexing	3.102 in
Minimum bending radius, occasionally moved	7.5 x outer diameter
Minimum bending radius in mm, occasionally moved	3.102 in
Maximum bending cycles	7,000,000
Maximum travel distance	65.617 ft
Maximum speed sliding	16.404 ft/s
Maximum speed unsupported	32.808 ft/s
Maximum acceleration	65.617 ft/s <sup>2</sup>
Temperature, fixed installation	to 90 °C max. conductor temperature according to CSA AWM -40 °C to 80 °C max. conductor temperature according to IEC to 90 °C max. conductor temperature according to UL AWM
Temperature, occasionally moved	-5 °C to 90 °C max. conductor temperature according to CSA AWM -5 °C to 90 °C max. conductor temperature according to UL AWM -5 °C to 70 °C max. conductor temperature according to IEC
temperature, dynamic permanently moved	-5 °C to 90 °C max. conductor temperature according to UL AWM -5 °C to 90 °C max. conductor temperature according to CSA AWM -5 °C to 70 °C max. conductor temperature according to IEC
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) EN 50525-1 (cables with a black jacket are suitable for permanent outdoor use)
Halogenfree	No
Oil resistant	Yes
Oil resistance according to	EN 50363-4-1: TM5 UL 80°C (176°F) rating according to UL 758 CSA C22.2 No. 210-15
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	EAЭC N RU Д-DE.АЮ64.В.00130/20
UL recognized	Yes
UL AWM certification	21098 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 A according to CSA C22.2 No. 210 (e-file number: E63634) AWM I B 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) AWM II B according to CSA C22.2 No. 210 (e-file number: E63634)
cUL listed	No
CSA certified	No
Resistance to flame propagation tested according to UN/ECE-R118	No

**ÖLFLEX® FD 891**

Article No.	Name	Number of cores	Including protective ground	Nominal cross section conductor (mm <sup>2</sup> )	Nominal outer diameter	Copper index
1026012	ÖLFLEX® FD 891 12G0,5	12	Yes	0.5 mm <sup>2</sup>	0.425 in	387 lb/10000 ft
1026103	ÖLFLEX® FD 891 3G0,75	3	Yes	0.75 mm <sup>2</sup>	0.26 in	145.1 lb/10000 ft
1026104	ÖLFLEX® FD 891 4G0,75	4	Yes	0.75 mm <sup>2</sup>	0.287 in	193.5 lb/10000 ft
1026105	ÖLFLEX® FD 891 5G0,75	5	Yes	0.75 mm <sup>2</sup>	0.315 in	241.9 lb/10000 ft
1026107	ÖLFLEX® FD 891 7G0,75	7	Yes	0.75 mm <sup>2</sup>	0.378 in	338.6 lb/10000 ft
1026112	ÖLFLEX® FD 891 12G0,75	12	Yes	0.75 mm <sup>2</sup>	0.457 in	581.2 lb/10000 ft
1026118	ÖLFLEX® FD 891 18G0,75	18	Yes	0.75 mm <sup>2</sup>	0.547 in	870.8 lb/10000 ft
1026125	ÖLFLEX® FD 891 25G0,75	25	Yes	0.75 mm <sup>2</sup>	0.654 in	1209.4 lb/10000 ft
1026127	ÖLFLEX® FD 891 3G1	3	Yes	1 mm <sup>2</sup>	0.28 in	193.53 lb/10000 ft
1026128	ÖLFLEX® FD 891 7G1	7	Yes	1 mm <sup>2</sup>	0.413 in	451.5 lb/10000 ft
1026129	ÖLFLEX® FD 891 4G1	4	Yes	1 mm <sup>2</sup>	0.307 in	262.07 lb/10000 ft
1026130	ÖLFLEX® FD 891 5G1	5	Yes	1 mm <sup>2</sup>	0.346 in	322.55 lb/10000 ft
1026131	ÖLFLEX® FD 891 12G1	12	Yes	1 mm <sup>2</sup>	0.492 in	779.48 lb/10000 ft
1026132	ÖLFLEX® FD 891 18G1	18	Yes	1 mm <sup>2</sup>	0.591 in	1162.51 lb/10000 ft
1026133	ÖLFLEX® FD 891 25G1	25	Yes	1 mm <sup>2</sup>	0.705 in	1612.73 lb/10000 ft
1026303	ÖLFLEX® FD 891 3G1,5	3	Yes	1.5 mm <sup>2</sup>	0.303 in	290.3 lb/10000 ft
1026304	ÖLFLEX® FD 891 4G1,5	4	Yes	1.5 mm <sup>2</sup>	0.346 in	387 lb/10000 ft
1026305	ÖLFLEX® FD 891 5G1,5	5	Yes	1.5 mm <sup>2</sup>	0.378 in	483.76 lb/10000 ft
1026307	ÖLFLEX® FD 891 7G1,5	7	Yes	1.5 mm <sup>2</sup>	0.457 in	677.3 lb/10000 ft
1026312	ÖLFLEX® FD 891 12G1,5	12	Yes	1.5 mm <sup>2</sup>	0.547 in	1161.04 lb/10000 ft
1026318	ÖLFLEX® FD 891 18G1,5	18	Yes	1.5 mm <sup>2</sup>	0.665 in	1741.56 lb/10000 ft
1026325	ÖLFLEX® FD 891 25G1,5	25	Yes	1.5 mm <sup>2</sup>	0.791 in	2418.84 lb/10000 ft
1026334	ÖLFLEX® FD 891 34G1,5	34	Yes	1.5 mm <sup>2</sup>	0.929 in	3289.6 lb/10000 ft
1026403	ÖLFLEX® FD 891 3G2,5	3	Yes	2.5 mm <sup>2</sup>	0.346 in	483.8 lb/10000 ft
1026404	ÖLFLEX® FD 891 4G2,5	4	Yes	2.5 mm <sup>2</sup>	0.386 in	645 lb/10000 ft
1026405	ÖLFLEX® FD 891 5G2,5	5	Yes	2.5 mm <sup>2</sup>	0.433 in	806.3 lb/10000 ft
1026407	ÖLFLEX® FD 891 7G2,5	7	Yes	2.5 mm <sup>2</sup>	0.528 in	1128.8 lb/10000 ft
1026412	ÖLFLEX® FD 891 12G2,5	12	Yes	2.5 mm <sup>2</sup>	0.622 in	1935.07 lb/10000 ft
1026504	ÖLFLEX® FD 891 4G4	4	Yes	4 mm <sup>2</sup>	0.465 in	1032 lb/10000 ft
1026505	ÖLFLEX® FD 891 5G4	5	Yes	4 mm <sup>2</sup>	0.52 in	1290 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
1026507	ÖLFLEX® FD 891 7G4	7	Yes	4 mm <sup>2</sup>	0.634 in	1806.1 lb/10000 ft
1026604	ÖLFLEX® FD 891 4G6	4	Yes	6 mm <sup>2</sup>	0.539 in	1548.1 lb/10000 ft
1026614	ÖLFLEX® FD 891 4G10	4	Yes	10 mm <sup>2</sup>	0.705 in	2580.1 lb/10000 ft
1026624	ÖLFLEX® FD 891 4G16	4	Yes	16 mm <sup>2</sup>	0.949 in	4128.2 lb/10000 ft
1026634	ÖLFLEX® FD 891 4G25	4	Yes	25 mm <sup>2</sup>	1.098 in	6450.2 lb/10000 ft
1026644	ÖLFLEX® FD 891 4G35	4	Yes	35 mm <sup>2</sup>	1.224 in	9030.3 lb/10000 ft

V1.1