

## ÖLFLEX® FD 855 P 7G1,5

**Article No.:** 0027578

Power and control cable; 7G1.5; Extended-Line;  $U_0/U$ : 300/500 V; PUR; Core identification: Numbers; UL recognised; Cable chain



### Details

#### Benefits

- Highly flexible cable design means maximum product performance.
- Durable cable chain use with long travel distances or high acceleration (LAPP "Extended Line" performance class).
- Resistant product thanks to the outer sheath material which is resistant to abrasion, notches and cuts.
- Low particle emission in continuously moving applications thanks to the PUR outer sheath material.
- Particularly short core stranding allows small bending radii.
- Low-capacitance core insulation for long transmission paths.
- UL certification according to technical data enables the product to be used on the North American market.
- Operating voltage of 1000 V according to UL, permitted for North America.

#### Application

- The cable design allows flexible, continuously moving use in moving machine parts and in cable chains.
- Can be used in dry and damp conditions, and especially in harsh and oily environments.
- The PUR outer sheath withstands high mechanical loads.

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- The PUR outer sheath is resistant to mineral oil-based lubricants and highly resistant to chemicals.
  - Suitable for outdoor use.
  - Flexible use at temperatures down to -40°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 surcharges and VAT. Sales only to business customers.

Unless specified otherwise, the product values shown are rated values at room temperature. You can receive further 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**

For use in cable chains: please follow the T3 technical assembly guidelines

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

**Technical Data****General information**

Brand	ÖLFLEX®
Product type	Power and control cable
Weight	177 kg/km
Copper index	101 kg/km

Performance class	Extended-Line
Industry segment	Agricultural & Farm Machinery Assembly Machines Automotive Construction Machinery Power Grids Food & Beverage Healthcare & Pharma Intralogistics Lifts & Elevators Machine tools Packaging Processing Industries Robotics Rolling Stock Ships & boats

#### Electrical parameters

Nominal voltage	$U_0/U$ : 300/500 V AC rms according to IEC
Rated voltage	1000 V AC rms according to UL AWM 1000 V AC rms according to cRU AWM
Test voltage	3 kV
Current rating according to	VDE 0298-4
Max. conductor resistance at 20°C	13.3 $\Omega$ /km
Mutual capacitance core/core (800Hz), approx.	86 nF/km
Inductance (800 Hz), approx.	0.635 mH/km

#### Product design

Cable dimension	7G1.5
Conductor cross-section (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 conductor	Yes
Number of cores	7

Stranding type	Layered stranding
Wrapping over stranding	Fleece wrapping
Shielded	No
Nominal outer diameter	10.7 mm
Shape of cable	Round
Core insulation base material	Thermoplastic elastomers
Core insulation base material, shortname	TPE
Base material of outer sheath	Polyurethane
Base material of outer sheath, shortname	PUR
Cable sheath colour	grey
Cable insulation RAL colour	RAL 7001
Core identification	Numbers
Core colour code	EN 50334 VDE 0293-1

#### Product features

Application area	Cable chain Flexible
For continuous flexing	Yes
For torsional load	No
Minimum bending radius, stationary	3 x outer diameter
Minimum bending radius in mm, fixed installation	32.1 mm
Minimum bending radius, dynamic permanently moved	5 x outer diameter
Minimum bending radius in mm, dynamic continuously flexing	53.5 mm
Minimum bending radius, occasionally moved	5 x outer diameter
Minimum bending radius in mm, occasionally flexing	53.5 mm
Maximum bending cycles	10,000,000
Maximum travel distance	100 m
Maximum speed sliding	5 m/s
Maximum speed unsupported	10 m/s

Maximum acceleration	50 m/s <sup>2</sup>
max. conductor temperature, fixed installation	-50 °C to 80 °C according to IEC to 80 °C according to UL AWM to 80 °C according to CSA AWM
max. conductor temperature, occasionally moved	-40 °C to 80 °C according to IEC to 80 °C according to CSA AWM to 80 °C according to UL AWM
max. conductor temperature, dynamic continuously flexing	-40 °C to 80 °C according to IEC to 80 °C according to CSA AWM to 80 °C according to UL AWM
Flame-retardant	Yes
Flame retardance according to	IEC 60332-1-2 CSA FT2
UV-resistant	Yes
UV-resistant according to	EN ISO 4892-2, method A (colour change permitted) EN 50618 EN 50620
weather resistant	Yes
Ozone resistant	Yes
Ozone-resistant according to	EN 50396, method B
Chemical resistant	Yes
hydrolysis resistant	Yes
Halogenfree	Yes
Zero halogen according to	VDE 0472-815
Oil-resistant	Yes
Oil resistance according to	EN 50363-10-2
MUD resistance according to	IEC 61892-4
PWIS-free	Yes
PWIS-free according to	VDMA 24364-B2-L
Low capacitance	Yes
Low-adhesion sheath surface	Yes
<b>Certifications and standards</b>	
CE marked	Yes
EAC-certified	Yes

EAC certification number	EAЭC N RU Д-DE.АЮ064.В.00130/20
UL recognised	Yes
UL AWM certification	10263 according to UL 758 (e-file number: E63634) 21576 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 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
Flame retardance tested according to UN /ECE-R118	No

**ÖLFLEX® FD 855 P**

Article No.	Name	Number of cores	Including protective conductor	Conductor cross-section (mm <sup>2</sup> )	Nominal outer diameter	Copper index	Weight
0027370	ÖLFLEX® FD 855 P 3G2,5	3	Yes	2.5 mm <sup>2</sup>	8.9 mm		118 kg/km
0027371	ÖLFLEX® FD 855 P 4G2,5	4	Yes	2.5 mm <sup>2</sup>	9.9 mm		157 kg/km
0027372	ÖLFLEX® FD 855 P 5G2,5	5	Yes	2.5 mm <sup>2</sup>	11 mm		188 kg/km
0027373	ÖLFLEX® FD 855 P 7G2,5	7	Yes	2.5 mm <sup>2</sup>	13.4 mm		265 kg/km
0027374	ÖLFLEX® FD 855 P 12G2,5	12	Yes	2.5 mm <sup>2</sup>	15.8 mm		414 kg/km
0027375	ÖLFLEX® FD 855 P 18G2,5	18	Yes	2.5 mm <sup>2</sup>	18.9 mm		720 kg/km
0027376	ÖLFLEX® FD 855 P 25G2,5	25	Yes	2.5 mm <sup>2</sup>	23.5 mm		890 kg/km
0027530	ÖLFLEX® FD 855 P 2X0,5	2	No	0.5 mm <sup>2</sup>	5.1 mm		31 kg/km
0027531	ÖLFLEX® FD 855 P 3G0,5	3	Yes	0.5 mm <sup>2</sup>	5.5 mm		40 kg/km
0027532	ÖLFLEX® FD 855 P 5G0,5	5	Yes	0.5 mm <sup>2</sup>	6.6 mm		55 kg/km
0027533	ÖLFLEX® FD 855 P 6G0,5	6	Yes	0.5 mm <sup>2</sup>	7.1 mm		65 kg/km
0027534	ÖLFLEX® FD 855 P 7G0,5	7	Yes	0.5 mm <sup>2</sup>	7.7 mm		76 kg/km
0027535	ÖLFLEX® FD 855 P 12G0,5	12	Yes	0.5 mm <sup>2</sup>	9.1 mm		110 kg/km
0027536	ÖLFLEX® FD 855 P 18G0,5	18	Yes	0.5 mm <sup>2</sup>	10.9 mm		158 kg/km
0027537	ÖLFLEX® FD 855 P 20G0,5	20	Yes	0.5 mm <sup>2</sup>	11.5 mm		184 kg/km
0027538	ÖLFLEX® FD 855 P 25G0,5	25	Yes	0.5 mm <sup>2</sup>	13.4 mm		240 kg/km
0027540	ÖLFLEX® FD 855 P 30G0,5	30	Yes	0.5 mm <sup>2</sup>	13.6 mm		261 kg/km
0027541	ÖLFLEX® FD 855 P 36G0,5	36	Yes	0.5 mm <sup>2</sup>	14.7 mm		306 kg/km
0027545	ÖLFLEX® FD 855 P 2X0,75	2	No	0.75 mm <sup>2</sup>	5.6 mm		39 kg/km
0027546	ÖLFLEX® FD 855 P 3G0,75	3	Yes	0.75 mm <sup>2</sup>	6 mm		47 kg/km
0027547	ÖLFLEX® FD 855 P 4G0,75	4	Yes	0.75 mm <sup>2</sup>	6.7 mm		59 kg/km
0027548	ÖLFLEX® FD 855 P 5G0,75	5	Yes	0.75 mm <sup>2</sup>	7.3 mm		73 kg/km
0027549	ÖLFLEX® FD 855 P 7G0,75	7	Yes	0.75 mm <sup>2</sup>	8.8 mm		103 kg/km
0027550	ÖLFLEX® FD 855 P 12G0,75	12	Yes	0.75 mm <sup>2</sup>	10.3 mm		148 kg/km
0027551	ÖLFLEX® FD 855 P 18G0,75	18	Yes	0.75 mm <sup>2</sup>	12.4 mm		221 kg/km
0027552	ÖLFLEX® FD 855 P 20G0,75	20	Yes	0.75 mm <sup>2</sup>	13.3 mm		254 kg/km
0027553	ÖLFLEX® FD 855 P 25G0,75	25	Yes	0.75 mm <sup>2</sup>	15.5 mm		330 kg/km
0027555	ÖLFLEX® FD 855 P 36G0,75	36	Yes	0.75 mm <sup>2</sup>	16.9 mm		412 kg/km
0027560	ÖLFLEX® FD 855 P 2X1	2	No	1 mm <sup>2</sup>	6 mm		46 kg/km
0027561	ÖLFLEX® FD 855 P 3G1	3	Yes	1 mm <sup>2</sup>	6.5 mm		61 kg/km

Article No.	Name	Number of cores	Including protective conductor	Conductor cross-section (mm <sup>2</sup> )	Nominal outer diameter	Copper index	Weight
0027562	ÖLFLEX® FD 855 P 4G1	4	Yes	1 mm <sup>2</sup>	7.2 mm		76 kg/km
0027563	ÖLFLEX® FD 855 P 5G1	5	Yes	1 mm <sup>2</sup>	7.8 mm		93 kg/km
0027564	ÖLFLEX® FD 855 P 7G1	7	Yes	1 mm <sup>2</sup>	9.5 mm		122 kg/km
0027565	ÖLFLEX® FD 855 P 12G1	12	Yes	1 mm <sup>2</sup>	11.2 mm		196 kg/km
0027566	ÖLFLEX® FD 855 P 18G1	18	Yes	1 mm <sup>2</sup>	13.7 mm		294 kg/km
0027567	ÖLFLEX® FD 855 P 20G1	20	Yes	1 mm <sup>2</sup>	14.4 mm		321 kg/km
0027568	ÖLFLEX® FD 855 P 25G1	25	Yes	1 mm <sup>2</sup>	16.8 mm		418 kg/km
0027570	ÖLFLEX® FD 855 P 30G1	30	Yes	1 mm <sup>2</sup>	17 mm		463 kg/km
0027571	ÖLFLEX® FD 855 P 36G1	36	Yes	1 mm <sup>2</sup>	18.6 mm		560 kg/km
0027575	ÖLFLEX® FD 855 P 2X1,5	2	No	1.5 mm <sup>2</sup>	6.7 mm		62 kg/km
0027576	ÖLFLEX® FD 855 P 3G1,5	3	Yes	1.5 mm <sup>2</sup>	7.3 mm		83 kg/km
0027577	ÖLFLEX® FD 855 P 5G1,5	5	Yes	1.5 mm <sup>2</sup>	9 mm		128 kg/km
0027578	ÖLFLEX® FD 855 P 7G1,5	7	Yes	1.5 mm <sup>2</sup>	10.7 mm		177 kg/km
0027579	ÖLFLEX® FD 855 P 12G1,5	12	Yes	1.5 mm <sup>2</sup>	12.7 mm		275 kg/km
0027580	ÖLFLEX® FD 855 P 18G1,5	18	Yes	1.5 mm <sup>2</sup>	15.2 mm		405 kg/km
0027582	ÖLFLEX® FD 855 P 25G1,5	25	Yes	1.5 mm <sup>2</sup>	18.8 mm		565 kg/km
0027584	ÖLFLEX® FD 855 P 30G1,5	30	Yes	1.5 mm <sup>2</sup>	18.8 mm		621 kg/km
0027585	ÖLFLEX® FD 855 P 36G1,5	36	Yes	1.5 mm <sup>2</sup>	20.6 mm		740 kg/km
0027586	ÖLFLEX® FD 855 P 4G1,5	4	Yes	1.5 mm <sup>2</sup>	8 mm		102 kg/km
0027587	ÖLFLEX® FD 855 P 41G1,5	41	Yes	1.5 mm <sup>2</sup>	22.4 mm		960 kg/km

V1.1