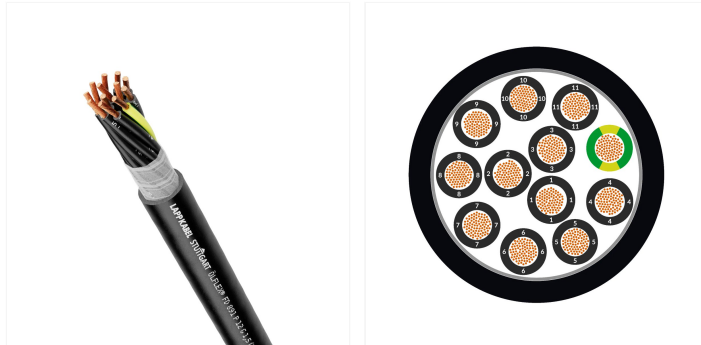


## ÖLFLEX® FD 891 P 4G6

**Article No.:** 1028604

Power and control cable; 4G6; 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      | 1548.1 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<br>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                                    | 4G6                                |
| Nominal cross section conductor (mm <sup>2</sup> ) | 6 mm <sup>2</sup>                  |
| Nominal cross section conductor (AWG)              | 10 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                             | 0.539 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<br>VDE 0293-1 |

**Product features**

|  |  |
|--|--|
| Application area   | Cable chain<br>Flexible  |
| For permanent bending  | Yes  |
| For torsional load   | No   |
| Minimum bending radius, stationary                           | 4 x outer diameter   |
| Minimum bending radius in inch, fixed installation           | 2.157 in   |
| Minimum bending radius, dynamic continuously flexing         | 7.5 x outer diameter   |
| Minimum bending radius in inch, dynamic continuously flexing | 4.047 in   |
| Minimum bending radius, occasionally moved                   | 7.5 x outer diameter   |
| Minimum bending radius in mm, occasionally moved             | 4.047 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<br>to 80 °C max. conductor temperature according to CSA AWM<br>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<br>-5 °C to 80 °C max. conductor temperature according to CSA AWM<br>-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<br>-5 to 70 °C max. conductor temperature according to IEC<br>-5 °C to 80 °C max. conductor temperature according to CSA AWM    |
| Flame-retardant                        | Yes   |
| Flame retardance according to          | IEC 60332-1-2<br>UL VW-1<br>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)<br>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)<br>AWM II B according to CSA C22.2 No. 210 (e-file number: E63634)<br>AWM I A according to CSA C22.2 No. 210 (e-file number: E63634)<br>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