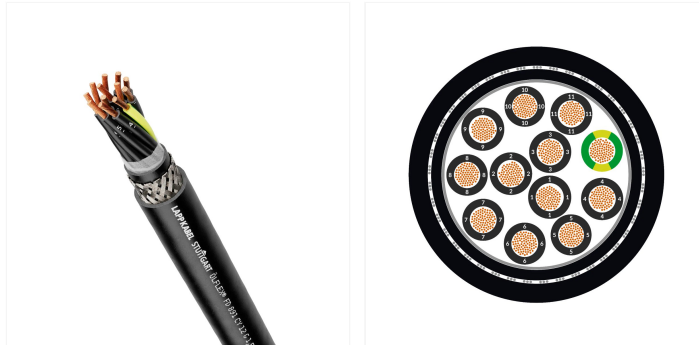


## ÖLFLEX® FD 891 CY 12G0,5

**Article No.:** 1027012

Power and control cable; 12G0.5; Core-Line;  $U_0/U$ : 300/500 V; PVC; Core identification: Numbers; Shielded; 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.
- Ideal protection against electromagnetic interference thanks to copper shielding braiding with a high degree of coverage.
- 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.
- Especially for environments where electromagnetic compatibility (EMC) is required.

- Can be used in dry, damp or wet environments.
- Suitable for medium mechanical stress.
- The PVC outer jacket is resistant to acids and alkaline solutions and has limited oil resistance.
- 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      | 671.2 lb/10000 ft              |
| Performance class | Core-Line                      |
| Industry segment  | Automotive<br>Process Industry |

#### Electrical parameters

|                 |   |
|-----------------|---|
| Nominal voltage | $U_0/U$ : 300/500 V AC rms according to IEC                           |
| Rated voltage   | 600 V AC rms according to CSA AWM<br>600 V AC rms according to UL AWM |

|                                  |            |
|----------------------------------|------------|
| Test voltage conductor/conductor | 4 kV       |
| Test voltage conductor/shielding | 4 kV       |
| Current rating according to      | VDE 0298-4 |

### Product design

|  |                                    |
|--|------------------------------------|
| Cable dimension                                    | 12G0.5                             |
| Nominal cross section conductor (mm <sup>2</sup> ) | 0.5 mm <sup>2</sup>                |
| Nominal cross section conductor (AWG)              | 21 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                                    | 12                                 |
| Stranding type                                     | Layered Stranding                  |
| Wrapping above stranding                           | Fleece Wrapping                    |
| Shielded   | Yes                                |
| Type of overall shielding                          | Tin-plated copper braiding         |
| Nominal outer diameter                             | 0.496 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<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           | 1.984 in  |
| Minimum bending radius, dynamic continuously flexing         | 7.5 x outer diameter  |
| Minimum bending radius in inch, dynamic continuously flexing | 3.72 in   |
| Minimum bending radius, occasionally moved                   | 7.5 x outer diameter  |
| Minimum bending radius in mm, occasionally moved             | 3.72 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 UL AWM<br>-40 °C to 80 °C max. conductor temperature according to IEC<br>to 90 °C max. conductor temperature according to CSA AWM            |
| Temperature, occasionally moved                              | -5 °C to 90 °C max. conductor temperature according to CSA AWM<br>-5 °C to 70 °C max. conductor temperature according to IEC<br>-5 °C to 90 °C max. conductor temperature according to UL AWM |
| temperature, dynamic permanently moved                       | -5 °C to 90 °C max. conductor temperature according to UL AWM<br>-5 °C to 90 °C max. conductor temperature according to CSA AWM<br>-5 °C to 70 °C max. conductor temperature according to IEC |
| 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)<br>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<br>UL 80°C (176°F) rating according to UL 758<br>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)<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 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)<br>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 CY**

| Article No. | Name                      | Number of cores | Including protective ground | Nominal cross section conductor (mm <sup>2</sup> ) | Nominal outer diameter | Copper index        |
|-------------|---------------------------|-----------------|-----------------------------|--|------------------------|---------------------|
| 1027003     | ÖLFLEX® FD 891 CY 3G0,5   | 3               | Yes                         | 0.5 mm <sup>2</sup>                                | 0.311 in               | 261.4 lb/10000 ft   |
| 1027004     | ÖLFLEX® FD 891 CY 4G0,5   | 4               | Yes                         | 0.5 mm <sup>2</sup>                                | 0.335 in               | 317.8 lb/10000 ft   |
| 1027005     | ÖLFLEX® FD 891 CY 5G0,5   | 5               | Yes                         | 0.5 mm <sup>2</sup>                                | 0.362 in               | 371.6 lb/10000 ft   |
| 1027007     | ÖLFLEX® FD 891 CY 7G0,5   | 7               | Yes                         | 0.5 mm <sup>2</sup>                                | 0.429 in               | 544.9 lb/10000 ft   |
| 1027012     | ÖLFLEX® FD 891 CY 12G0,5  | 12              | Yes                         | 0.5 mm <sup>2</sup>                                | 0.496 in               | 671.2 lb/10000 ft   |
| 1027018     | ÖLFLEX® FD 891 CY 18G0,5  | 18              | Yes                         | 0.5 mm <sup>2</sup>                                | 0.61 in                | 1075.7 lb/10000 ft  |
| 1027025     | ÖLFLEX® FD 891 CY 25G0,5  | 25              | Yes                         | 0.5 mm <sup>2</sup>                                | 0.697 in               | 1370 lb/10000 ft    |
| 1027103     | ÖLFLEX® FD 891 CY 3G0,75  | 3               | Yes                         | 0.75 mm <sup>2</sup>                               | 0.323 in               | 330.6 lb/10000 ft   |
| 1027104     | ÖLFLEX® FD 891 CY 4G0,75  | 4               | Yes                         | 0.75 mm <sup>2</sup>                               | 0.35 in                | 402.5 lb/10000 ft   |
| 1027105     | ÖLFLEX® FD 891 CY 5G0,75  | 5               | Yes                         | 0.75 mm <sup>2</sup>                               | 0.394 in               | 460.9 lb/10000 ft   |
| 1027107     | ÖLFLEX® FD 891 CY 7G0,75  | 7               | Yes                         | 0.75 mm <sup>2</sup>                               | 0.457 in               | 616.1 lb/10000 ft   |
| 1027112     | ÖLFLEX® FD 891 CY 12G0,75 | 12              | Yes                         | 0.75 mm <sup>2</sup>                               | 0.543 in               | 1022 lb/10000 ft    |
| 1027118     | ÖLFLEX® FD 891 CY 18G0,75 | 18              | Yes                         | 0.75 mm <sup>2</sup>                               | 0.642 in               | 1373.4 lb/10000 ft  |
| 1027292     | ÖLFLEX® FD 891 CY 3G1     | 3               | Yes                         | 1 mm <sup>2</sup>                                  | 0.343 in               | 376.3 lb/10000 ft   |
| 1027293     | ÖLFLEX® FD 891 CY 5G1     | 5               | Yes                         | 1 mm <sup>2</sup>                                  | 0.417 in               | 564.4 lb/10000 ft   |
| 1027294     | ÖLFLEX® FD 891 CY 7G1     | 7               | Yes                         | 1 mm <sup>2</sup>                                  | 0.484 in               | 725.65 lb/10000 ft  |
| 1027295     | ÖLFLEX® FD 891 CY 12G1    | 12              | Yes                         | 1 mm <sup>2</sup>                                  | 0.579 in               | 1196.1 lb/10000 ft  |
| 1027296     | ÖLFLEX® FD 891 CY 25G1    | 25              | Yes                         | 1 mm <sup>2</sup>                                  | 0.807 in               | 2365.1 lb/10000 ft  |
| 1027301     | ÖLFLEX® FD 891 CY 4G1     | 4               | Yes                         | 1 mm <sup>2</sup>                                  | 0.386 in               | 471.72 lb/10000 ft  |
| 1027302     | ÖLFLEX® FD 891 CY 18G1    | 18              | Yes                         | 1 mm <sup>2</sup>                                  | 0.681 in               | 1713.52 lb/10000 ft |
| 1027303     | ÖLFLEX® FD 891 CY 3G1,5   | 3               | Yes                         | 1.5 mm <sup>2</sup>                                | 0.382 in               | 502.6 lb/10000 ft   |
| 1027304     | ÖLFLEX® FD 891 CY 4G1,5   | 4               | Yes                         | 1.5 mm <sup>2</sup>                                | 0.417 in               | 632.9 lb/10000 ft   |
| 1027305     | ÖLFLEX® FD 891 CY 5G1,5   | 5               | Yes                         | 1.5 mm <sup>2</sup>                                | 0.449 in               | 679.3 lb/10000 ft   |
| 1027307     | ÖLFLEX® FD 891 CY 7G1,5   | 7               | Yes                         | 1.5 mm <sup>2</sup>                                | 0.543 in               | 1112.7 lb/10000 ft  |
| 1027312     | ÖLFLEX® FD 891 CY 12G1,5  | 12              | Yes                         | 1.5 mm <sup>2</sup>                                | 0.642 in               | 1656.23 lb/10000 ft |
| 1027318     | ÖLFLEX® FD 891 CY 18G1,5  | 17              | Yes                         | 1.5 mm <sup>2</sup>                                | 0.768 in               | 2517.6 lb/10000 ft  |
| 1027325     | ÖLFLEX® FD 891 CY 25G1,5  | 25              | Yes                         | 1.5 mm <sup>2</sup>                                | 0.929 in               | 3288.3 lb/10000 ft  |
| 1027403     | ÖLFLEX® FD 891 CY 3G2,5   | 3               | Yes                         | 2.5 mm <sup>2</sup>                                | 0.417 in               | 698.1 lb/10000 ft   |
| 1027404     | ÖLFLEX® FD 891 CY 4G2,5   | 4               | Yes                         | 2.5 mm <sup>2</sup>                                | 0.465 in               | 1087.1 lb/10000 ft  |
| 1027405     | ÖLFLEX® FD 891 CY 5G2,5   | 5               | Yes                         | 2.5 mm <sup>2</sup>                                | 0.512 in               | 1240.3 lb/10000 ft  |

| Article No. | Name                     | Number of cores | Including protective ground | Nominal cross section conductor (mm <sup>2</sup> ) | Nominal outer diameter | Copper index        |
|-------------|--------------------------|-----------------|-----------------------------|--|------------------------|---------------------|
| 1027407     | ÖLFLEX® FD 891 CY 7G2,5  | 7               | Yes                         | 2.5 mm <sup>2</sup>                                | 0.622 in               | 1626.7 lb/10000 ft  |
| 1027412     | ÖLFLEX® FD 891 CY 12G2,5 | 12              | Yes                         | 2.5 mm <sup>2</sup>                                | 0.717 in               | 2711.1 lb/10000 ft  |
| 1027503     | ÖLFLEX® FD 891 CY 3G4    | 3               | Yes                         | 4 mm <sup>2</sup>                                  | 0.488 in               | 1058.2 lb/10000 ft  |
| 1027504     | ÖLFLEX® FD 891 CY 4G4    | 4               | Yes                         | 4 mm <sup>2</sup>                                  | 0.551 in               | 1465.4 lb/10000 ft  |
| 1027507     | ÖLFLEX® FD 891 CY 7G4    | 7               | Yes                         | 4 mm <sup>2</sup>                                  | 0.72 in                | 2507.5 lb/10000 ft  |
| 1027604     | ÖLFLEX® FD 891 CY 4G6    | 4               | Yes                         | 6 mm <sup>2</sup>                                  | 0.634 in               | 2047.3 lb/10000 ft  |
| 1027624     | ÖLFLEX® FD 891 CY 4G16   | 4               | Yes                         | 16 mm <sup>2</sup>                                 | 1.067 in               | 5399.4 lb/10000 ft  |
| 1027634     | ÖLFLEX® FD 891 CY 4G25   | 4               | Yes                         | 25 mm <sup>2</sup>                                 | 1.232 in               | 7931.1 lb/10000 ft  |
| 1027644     | ÖLFLEX® FD 891 CY 4G35   | 4               | Yes                         | 35 mm <sup>2</sup>                                 | 1.35 in                | 10708.1 lb/10000 ft |

V1.1