

**UNITRONIC® FD CP plus A 3X0,25****Article No.:** 11139609

Low-frequency data cable; 3X0.25; Conductor color code: DIN 47100; PUR; Shielded; UL recognized; Cable chain

**Details****Benefits**

- The combination of the very robust cable design and the wide temperature range in which it can be used provides a wide range of applications..
- Durable, resistant product thanks to the outer jacket PUR material that is resistant to abrasions, notches and cuts.
- Low-capacitance conductor insulation for long transmission paths or higher data transmission rates.
- Ideal protection against electromagnetic interference thanks to copper shielding braiding with a high degree of coverage.
- Relatively small bending radii thanks to highly flexible cable design.
- UL certification according to technical data enables the product to be used on the North American market.

**Application**

- Can be used universally at machine interfaces for many applications for data and signal transmission in the low-frequency range.
- Especially for environments where electromagnetic compatibility (EMC) is required.
- Cable design enables flexible, constantly flexing use in industrial robots (without torsional stress) and handling devices.

- The cable design allows flexible, continuously flexing use in moving machine parts and in the cable chain.
- Cable design also suitable for torsion applications in wind turbines.
- Can be used in dry, damp and, especially, harsh and oily environments.
- The PUR outer jacket is resistant to mineral oil-based lubricants and highly resistant to chemicals.
- Suitable for outdoor use in Europe.
- 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 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**

Technical Data

**General information**

|                  |  |
|------------------|--|
| Brand            | UNITRONIC®   |
| Product type     | Low-frequency data cable   |
| Copper index     | 126.33 lb/10000 ft   |
| Industry segment | Assembly Machines<br>Construction Machinery<br>Healthcare & Pharma<br>Intralogistics & Material handling<br>Lifts & Elevators<br>Machine Tools<br>Packaging<br>Robotics<br>Ships & boats |

**Electrical parameters**

|  |        |
|--|--------|
| Maximum operating voltage (not for power transmission) | 500 V  |
| Test voltage conductor/conductor                       | 1.5 kV |
| Test voltage conductor/shielding                       | 1.5 kV |

**Product design**

|  |                            |
|--|----------------------------|
| Cable dimension                                    | 3X0.25                     |
| Nominal cross section conductor (mm <sup>2</sup> ) | 0.25 mm <sup>2</sup>       |
| Nominal cross section conductor (AWG)              | 24 AWG                     |
| Conductor material                                 | Bare Copper                |
| Conductor design                                   | extra-fine wire            |
| Including protective ground                        | No                         |
| Number of cores                                    | 3                          |
| Stranding type                                     | Layered Stranding          |
| Shielded   | Yes                        |
| Type of overall shielding                          | Tin-plated copper braiding |
| Nominal outer diameter                             | 0.193 in                   |
| Cable form   | Round                      |
| Core insulation base material                      | Polyolefin                 |
| Conductor insulation basic material, short form    | PO                         |
| Basic material of outer jacket                     | Polyurethane               |
| Base material of outer sheath, shortname           | PUR                        |
| Outer jacket color                                 | gray                       |
| Core identification                                | Colors                     |
| Conductor color code                               | DIN 47100                  |

**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           | 0.772 in  |
| Minimum bending radius, dynamic continuously flexing         | 7.5 x outer diameter  |
| Minimum bending radius in inch, dynamic continuously flexing | 1.449 in  |
| Minimum bending radius, occasionally moved                   | 7.5 x outer diameter  |
| Minimum bending radius in mm, occasionally moved             | 1.449 in  |
| Maximum bending cycles                                       | 5,000,000   |
| Maximum travel distance                                      | 16.404 ft   |
| Maximum speed unsupported                                    | 9.843 ft/s  |
| Maximum acceleration   | 9.843 ft/s <sup>2</sup>   |
| Temperature, fixed installation                              | -40 °C to +80 °C max. conductor temperature according to UL AWM |
| temperature, dynamic permanently moved                       | -40 °C to +80 °C max. conductor temperature according to UL AWM |
| Flame-retardant  | Yes   |
| Flame retardance according to                                | IEC 60332-1-2   |
| UV-resistant   | Yes   |
| UV-resistant according to                                    | DIN EN ISO 4892-2 method A                                      |
| weather resistant  | Yes   |
| Weather-resistant according to                               | ISO 4892-2  |
| Ozone-resistant  | Yes   |
| ozone resistant according to                                 | EN 50396, method B  |
| Halogenfree  | Yes   |
| Halogen-free according to                                    | VDE 0472-815  |
| Oil resistant  | Yes   |
| Oil resistance according to                                  | EN 50363-10-2   |
| PWIS-free  | Yes   |
| PWIS-free according to                                       | VDMA 24364-B2-L   |
| Mechanically resistant                                       | Yes   |

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**Certifications and standards**

|                      |  |
|----------------------|--|
| CE marking           | Yes  |
| UL recognized        | Yes  |
| UL AWM certification | 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 (80°C, 300V) (e-file number: E63634)<br>AWM I B according to CSA C22.2 No. 210 (80°C, 300V) (e-file number: E63634)<br>AWM II A according to CSA C22.2 No. 210 (80°C, 300V) (e-file number: E63634)<br>AWM II B according to CSA C22.2 No. 210 (80°C, 300V) (e-file number: E63634) |
| cUL listed           | No   |
| CSA certified        | No   |
| VDE certified        | No   |
| DNV-certified        | No   |

**UNITRONIC® FD CP plus A**

| Article No. | Name                            | Number of cores | Nominal cross section conductor (mm <sup>2</sup> ) | Nominal outer diameter | Copper index        |
|-------------|---------------------------------|-----------------|--|------------------------|---------------------|
| 11139600    | UNITRONIC® FD CP plus A 3X0,14  | 3               | 0.14 mm <sup>2</sup>                               | 0.177 in               | 94.75 lb/10000 ft   |
| 11139601    | UNITRONIC® FD CP plus A 4X0,14  | 4               | 0.14 mm <sup>2</sup>                               | 0.189 in               | 104.16 lb/10000 ft  |
| 11139602    | UNITRONIC® FD CP plus A 5X0,14  | 5               | 0.14 mm <sup>2</sup>                               | 0.201 in               | 122.97 lb/10000 ft  |
| 11139603    | UNITRONIC® FD CP plus A 7X0,14  | 7               | 0.14 mm <sup>2</sup>                               | 0.224 in               | 186.81 lb/10000 ft  |
| 11139604    | UNITRONIC® FD CP plus A 10X0,14 | 10              | 0.14 mm <sup>2</sup>                               | 0.264 in               | 264.08 lb/10000 ft  |
| 11139605    | UNITRONIC® FD CP plus A 14X0,14 | 14              | 0.14 mm <sup>2</sup>                               | 0.268 in               | 304.4 lb/10000 ft   |
| 11139606    | UNITRONIC® FD CP plus A 18X0,14 | 18              | 0.14 mm <sup>2</sup>                               | 0.291 in               | 363.54 lb/10000 ft  |
| 11139607    | UNITRONIC® FD CP plus A 25X0,14 | 25              | 0.14 mm <sup>2</sup>                               | 0.35 in                | 459.63 lb/10000 ft  |
| 11139608    | UNITRONIC® FD CP plus A 2X0,25  | 2               | 0.25 mm <sup>2</sup>                               | 0.185 in               | 100.12 lb/10000 ft  |
| 11139609    | UNITRONIC® FD CP plus A 3X0,25  | 3               | 0.25 mm <sup>2</sup>                               | 0.193 in               | 126.33 lb/10000 ft  |
| 11139610    | UNITRONIC® FD CP plus A 4X0,25  | 4               | 0.25 mm <sup>2</sup>                               | 0.209 in               | 143.13 lb/10000 ft  |
| 11139611    | UNITRONIC® FD CP plus A 5X0,25  | 5               | 0.25 mm <sup>2</sup>                               | 0.22 in                | 208.31 lb/10000 ft  |
| 11139612    | UNITRONIC® FD CP plus A 7X0,25  | 7               | 0.25 mm <sup>2</sup>                               | 0.252 in               | 266.1 lb/10000 ft   |
| 11139613    | UNITRONIC® FD CP plus A 10X0,25 | 10              | 0.25 mm <sup>2</sup>                               | 0.299 in               | 362.19 lb/10000 ft  |
| 11139614    | UNITRONIC® FD CP plus A 14X0,25 | 14              | 0.25 mm <sup>2</sup>                               | 0.311 in               | 431.4 lb/10000 ft   |
| 11139615    | UNITRONIC® FD CP plus A 18X0,25 | 18              | 0.25 mm <sup>2</sup>                               | 0.339 in               | 526.82 lb/10000 ft  |
| 11139616    | UNITRONIC® FD CP plus A 25X0,25 | 25              | 0.25 mm <sup>2</sup>                               | 0.409 in               | 678.69 lb/10000 ft  |
| 11139617    | UNITRONIC® FD CP plus A 2X0,34  | 2               | 0.34 mm <sup>2</sup>                               | 0.201 in               | 121.63 lb/10000 ft  |
| 11139618    | UNITRONIC® FD CP plus A 3X0,34  | 3               | 0.34 mm <sup>2</sup>                               | 0.213 in               | 192.85 lb/10000 ft  |
| 11139619    | UNITRONIC® FD CP plus A 4X0,34  | 4               | 0.34 mm <sup>2</sup>                               | 0.228 in               | 239.89 lb/10000 ft  |
| 11139620    | UNITRONIC® FD CP plus A 5X0,34  | 5               | 0.34 mm <sup>2</sup>                               | 0.244 in               | 262.74 lb/10000 ft  |
| 11139621    | UNITRONIC® FD CP plus A 7X0,34  | 7               | 0.34 mm <sup>2</sup>                               | 0.28 in                | 354.13 lb/10000 ft  |
| 11139622    | UNITRONIC® FD CP plus A 10X0,34 | 10              | 0.34 mm <sup>2</sup>                               | 0.339 in               | 452.91 lb/10000 ft  |
| 11139623    | UNITRONIC® FD CP plus A 14X0,34 | 14              | 0.34 mm <sup>2</sup>                               | 0.346 in               | 576.55 lb/10000 ft  |
| 11139624    | UNITRONIC® FD CP plus A 18X0,34 | 18              | 0.34 mm <sup>2</sup>                               | 0.386 in               | 669.95 lb/10000 ft  |
| 11139625    | UNITRONIC® FD CP plus A 25X0,34 | 25              | 0.34 mm <sup>2</sup>                               | 0.465 in               | 1041.55 lb/10000 ft |
| 11139626    | UNITRONIC® FD CP plus A 2X0,14  | 2               | 0.14 mm <sup>2</sup>                               | 0.169 in               | 75.26 lb/10000 ft   |

V1.1