# UNITRONIC® FD CP (TP) plus

## Multi-Pair 250V PUR Continuous Flex Industrial Communication Cable; Shielded


UNITRONIC® FD CP (TP) plus is a Type CMX approved multi-pair communication cable designed for continuous flexing industrial signal and data applications. The tear-resistant polyurethane jacket provides excellent service life in harsh environments against most oils, solvents, and coolants. It has a tinned copper braid shield for EMI resistance.

## Recommended Applications

High-speed automated equipment; robotics; CNC and multi-axis cutting equipment; other cable track applications

## Approvals

c UL us  c UL us  RoHS

## Construction

Conductors: Finely stranded bare copper

Insulation: Polyolefin

Pairs: Conductors are paired and twisted together; non-woven wrapping

Shielding: Tinned copper braid

Jacket: Specially formulated polyurethane; gray

## Application Advantage

- UL/c(UL) CMX approved
- Flexible at -40°C
- Resistant to oils, solvents, and coolants
- Abrasion-resistant & halogen-free jacket
- Resistant to microbes and hydrolysis

| Cable Attributes | | | | page 640 |
|---|---|---|---|---|
| OIL | OR-05 | FLAME | FR-02 | |
| MOTION | CF-02 | MECH. | MP-05 | |

**Complete the Installation**


SKINTOP® MS-SC page 516


EPIC® Connectors page 280

**ÖLFLEX® CONNECT Solution**


ÖLFLEX® CONNECT CABLES page 597

## Technical Data

**Minimum Bend Radius:**
- for continuous flexing: 7.5 x cable diameter

**Temperature Range:**
- for continuous flexing: -40°C to +80°C

**Nominal Voltage:** 250V (not for power)

**Test Voltage:**
- Conductor/conductor: 1500V
- Conductor/shield: 500V

**Insulation Resistance:** > 5 GΩ x cm

**Mutual Capacitance:**
- up to 0.5 mm²: 18 pF/ft
- up to 1.0 mm²: 21 pF/ft

**Inductance:** approx. 0.65 mH/km

**Conductor Stranding:** Extra fine wire per VDE 0295

**Color Code:** DIN 47100: Chart 7, page 674

**Approvals:**
UL: AWM 21576 CMX
Canada: c(UL) CMX cRU AWM I/II A/B FT2
Additional: RoHS

| Part Number | Number of Pairs | Nominal Outer Diameter (in) | (mm) | Copper Weight (lbs/mft) | Approx. Weight (lbs/mft) | SKINTOP® MS-SC PG Thread |
|---|---|---|---|---|---|---|
| **26 AWG (0.14 mm²)** | | | | | | |
| 0030910 | 2 | 0.244 | 6.2 | 13 | 28 | 53112210 |
| 0030911 | 3 | 0.256 | 6.5 | 16 | 36 | 53112210 |
| 0030912 | 4 | 0.276 | 7.0 | 18 | 40 | 53112210 |
| 0030913 | 5 | 0.299 | 7.6 | 25 | 50 | 53112220 |
| 0030914 | 6 | 0.307 | 7.8 | 33 | 61 | 53112220 |
| 0030915 | 8 | 0.358 | 9.1 | 37 | 73 | 53112220 |
| 0030916 | 10 | 0.413 | 10.5 | 40 | 81 | 53112230 |
| **24 AWG (0.25 mm²)** | | | | | | |
| 0030962 | 1 | 0.201 | 5.1 | 9 | 18 | 53112210 |
| 0030919 | 2 | 0.287 | 7.3 | 22 | 40 | 53112220 |
| 0030920 | 3 | 0.303 | 7.7 | 26 | 48 | 53112220 |
| 0030921 | 4 | 0.339 | 8.6 | 29 | 57 | 53112220 |
| 0030922 | 5 | 0.366 | 9.3 | 35 | 69 | 53112230 |
| 0030923 | 6 | 0.378 | 9.6 | 48 | 88 | 53112230 |
| 0030924 | 8 | 0.445 | 11.3 | 50 | 104 | 53112240 |
| 0030925 | 10 | 0.512 | 13.0 | 60 | 125 | 53112240 |
| 0030926 | 14 | 0.520 | 13.2 | 75 | 147 | 53112240 |
| **22 AWG (0.34 mm²)** | | | | | | |
| 0030963 | 1 | 0.220 | 5.6 | 13 | 24 | 53112210 |
| 0030928 | 2 | 0.323 | 8.2 | 28 | 54 | 53112220 |
| 0030929 | 3 | 0.343 | 8.7 | 35 | 68 | 53112220 |
| 0030930 | 4 | 0.374 | 9.5 | 40 | 80 | 53112230 |
| 0030932 | 6 | 0.433 | 11.0 | 58 | 111 | 53112230 |
| 0030933 | 8 | 0.504 | 12.8 | 72 | 149 | 53112240 |
| 0030934 | 10 | 0.587 | 14.9 | 88 | 184 | 53112250 |
| **20 AWG (0.50 mm²)** | | | | | | |
| 0030964 | 1 | 0.244 | 6.2 | 15 | 32 | 53112210 |
| 0030937 | 2 | 0.366 | 9.3 | 34 | 67 | 53112230 |
| 0030938 | 3 | 0.398 | 10.1 | 48 | 87 | 53112230 |
| 0030939 | 4 | 0.437 | 11.1 | 50 | 99 | 53112230 |
| 0030940 | 5 | 0.484 | 12.3 | 57 | 113 | 53112240 |
| 0030941 | 6 | 0.500 | 12.7 | 67 | 130 | 53112240 |
| 0030942 | 8 | 0.594 | 15.1 | 97 | 191 | 53112250 |
| 0030943 | 10 | 0.677 | 17.2 | 118 | 230 | 53112260 |
| 0030944 | 14 | 0.689 | 17.5 | 145 | 269 | 53112260 |
| **18 AWG (1.00 mm²)** | | | | | | |
| 0030955 | 1 | 0.276 | 7.0 | 28 | 48 | 53112210 |
| 0030956 | 2 | 0.433 | 11.0 | 49 | 87 | 53112230 |
| 0030957 | 3 | 0.469 | 11.9 | 63 | 114 | 53112240 |
| 0030958 | 4 | 0.516 | 13.1 | 79 | 137 | 53112240 |
| 0030959 | 5 | 0.579 | 14.7 | 93 | 159 | 53112250 |

Recommended SKINTOP® assumes minimal OD variance. Additional configurations are available; please see our SKINTOP® section.
If not otherwise specified, all values relating to the product are nominal values. Photographs are not to scale and are not true representations of the products in question.
For current information go to our website.