

UNITRONIC® FD P plus**DB0028650**

valid from: 21.05.2014

Application

UNITRONIC® FD P plus is a high flexible data cable with an outer sheath of PUR.

The cable with low capacitance is designed especially for use in power chains, automatic manipulators, in permanently moved machine parts.

The cable is increased oil-, abrasion-, tear and notch resistant, in addition microbe- and hydrolysis resistant. It is cold-resistant and for harsh environmental conditions.

Design

Design	based on UL AWM Style 11117 and 21576 and according to VDE 0812
Conductor	superfine wire strands of bare copper wires
Insulation	special Polyolefin-based compound
Core identification code	according to DIN 47100
Stranding	cores stranded in layers, wrapping with fleece on the outer layer
Outer sheath	special PUR-based compound, flame retardant, halogen free colour: grey (RAL 7001)

Electrical properties at 20°C

Conductor resistance

Cross section		max. [Ω/km]
[mm ²]	[AWG]	
0.14	26	138.0
0.25	24	79.0
0.34	22	55.4
0.5	21	39.0
0.75	19	26.0
1	18	19.5

Specific insulation resistance	> 5 G Ω x km
Mutual capacitance	C/C approx. 60 nF/km
Inductivity	approx. 0.65 mH/km
Peak working voltage	VDE: 0.14 mm ² : 350 V (not for power applications) ≥ 0.25 mm ² : 500 V (not for power applications) UL: 1000 V
Test voltage	C/C: 1500 V

Mechanical and thermal properties

Minimum bending radius	Flexing: 5 x cable Ø Fixed installation: 3 x cable Ø
Temperature range	Flexing: - 40 °C up to +80 °C Fixed installation: - 40 °C up to +80 °C
Flammability	flame retardant acc. to IEC 60332-1-2 and acc. to UL: FT2
UV resistance	according to ISO 4892-2, method A (change of colour allowed)
Ozone resistance	according to EN 50396 resp. VDE 0473-396, method B
Oil resistance	EN 50363-10-2 resp. VDE 0207-363-10-2
Approvals	UL AWM Style 21576
EC directive	This cable is conform to the EU-Directive 2011/65/EU (RoHS, Restriction of the use of certain hazardous substances).