



DATA SHEET	2170495
UNITRONIC-FD® P PROFIBUS HYBRID 1 x 2 x 0,64 + 4 x 1,5	valid from : 16.12.2004

Application

UNITRONIC FD ® P PROFIBUS HYBRID is a high flexible cable for continuous moving employment in power chain systems, linear rotors and automatic handling machines.

The cut resistant, notch ductile PUR outer sheath ensures low wear in power chain systems and also effects high resistance to mineral oils.

Design

Data pairs	stranded conductor: bare copper, 24AWG, 0.25 mm ² insulation: Foam-Skin PE core colour: red and green
Pair stranding	2 cores 0.25 mm ² with 2 fillers twisted to a pair taping with one layer non woven tape
Pair screening	plastic laminated aluminium foil braid of tinned copper wire, coverage approx. 85% taping with one layer plastic foil
Cores of power supply	stranded conductor: bare copper, 16AWG 1.5 mm ² insulation solid polyolefin core colour: black cores with white numbers 1 up to 4
Final stranding	1 screened pair with 4 cores 1.5 mm ² , stranded, taping with one layer non woven tape
Sheath	PUR, Etherbasis, flame retardant, adhesions free, halogen free, violet Outer diameter approx. 11.0 mm

Sheath printing:

LAPPKABEL STUTTGART UNITRONIC-FD® P PROFIBUS HYBRID 1x2x0,64+4x1,5

ART. 2170495

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Electrical properties at 20° C

Data pairs

Loop resistance		max. Ω/km	168
Insulation resistance		min. GΩx km	5
Mutual capacitance at	800 Hz	nom. nF/km	28
Impedance at	9.6 kHz	Ω	270 ± 27
	30.25 kHz	Ω	185 ± 18,5
	3...20 MHz	Ω	150 ± 15
Attenuation at	9.6kHz	max. dB/100m	0.3
	38.4 kHz	max. dB/100m	0.5
	4 MHz	max. dB/100m	2.5
	16 MHz	max. dB/100m	4.9

Cores of power supply

Conductor resistance		max. Ω/km	13.3
Insulation resistance		min. GΩx km	5

Cable core

Transfer impedance at	20 MHz	max. mΩ/m	10
Peak operating voltage (not for purposes of power / high voltage current)		V	100
Test voltage	core/core	U _{eff} V	600
	core/screen		600

Mechanical and thermal characteristics

Minimum bending radius	flexible	cable Ø x	15
Temperature range	static	°C	- 40 up to + 60
	flexible		- 30 up to + 60
Flammability	flame retardant to VDE 0482 part 265-2-1 / IEC 60 332-1		

General requirements

All materials used for the cable and during manufacturing must be **free of PWIS** (Paint-Wetting Impairment Substances e.g. silicone).

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