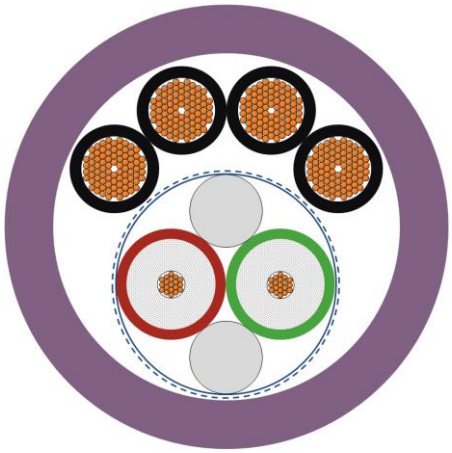
Description

UNITRONIC® BUS PB FD P HYBRID 1X2X0,64+4X1,5 is a halogen free and flame retardant one cable solution which is highly flexible and intended to use in drag chain applications, supplying PROFIBUS and power supply at the same time.

Herewith the cable is designed under consideration of the transmission requirements from IEC 61158; EN 50170-2; DIN 19245 and EIA RS485

Certification: AWM Style 10493 - 300V/80°C and
AWM Style 20233 - 300V/80°C
compliant to DESINA procedure



General characteristics

Data Pair

Conductor	stranded bare copper wires, conductor 0,25mm² or AWG 24/19
Insulation	foam-skin PE
Core identification code	green and red
Stranding	two cores stranded to pairs
Pair screening	aluminum laminated plastic foil on top braiding of tinned copper wires with coverage approx. 85%

Power Supply

Conductor	stranded bare copper wires, conductor 1,5mm² or AWG 15
Insulation	solid PE
Core identification code	black with white numbers

General Cable Construction

Stranding	data pair and power supply cores stranded together with fillers
Outer sheath	PUR compound outer Ø: approx. 11.5 mm color: violet, similar to RAL 4001

Mechanical characteristics

Minimum bending radius	flexible use: 15 x cable Ø fixed installation: 8 x cable Ø
Permissible temperature range	flexible use: -30 °C up to +70 °C fixed installation: -40 °C up to +80 °C
Flame propagation	flame retardant acc. to IEC 60332-1-2, FT1 and VW-1 acc. to UL1581
Halogen acid gas content	In acc. with IEC 60754-1/-2 and EN50267-2-1/-2-2
Oil resistance	acc. to IEC 60811-2-1, ASTM-oil 1 and ICEA S-82-552 Std.

Electrical characteristics

Max. DC-Resistance	power supply	13.3 Ω / km	
	data	84.0 Ω / km	
DC-Resistance (loop)	145.0 Ω / km		
Insulation resistance	min. 5 GΩ x km		
Mutual capacitance	nom. 30 nF/km at 1 kHz		
Characteristic impedance	150 Ω ± 15% from 1 up to 20 MHz		
Velocity of propagation	approx. 0.78 c		
Attenuation	0,3 dB/100m @ 9,6 kHz 0,5 dB/100m @ 38,4 kHz 0,7 dB/100m @ 200 kHz 2,5 dB/100m @ 4 MHz 4,9 dB/100m @ 16 MHz 5,7 dB/100m @ 20 MHz		
Max. operating voltage	300 V (only for power cores)		
Test voltage	power supply	core/core:	2.5 kV
	data	core/core:	2.5 kV

Standard

EU-Directive	Dangerous and forbidden substances acc. to RoHS directive (2011/65/EU) are not allowed to the manufacturing.