

BO-DEVICENET HIGH-FLEX PUR

DeviceNet™ cables for dynamic installation



Image for illustration only

Conductor:	Stranded tinned copper complying with CEI EN 60228
Insulation: Signal AWG 18 or AWG 24 Power AWG 15 or AWG 22	Foam skin PE Solid PE
Colour Code: Signal AWG 18 or AWG 24 Power AWG 15 or AWG 22	white and blue black and red
Pair shielding:	Aluminium/polyester tape on each pair and common drain wire
Screen:	Tinned copper wire braid having coverage 85%
Outer Sheath:	PUR according to UL1581 and C22.2 n°210. Colour violet RAL 4001
Technical Data & Standard References	Product features: Flame retardant: Horizontal flame test per UL758, FT2 test acc. to CSA C.22.2 n°210 Halogen gas emission: $\leq 0,5\%$ IEC 60754, CEI EN 50267-2 Industrial oil resistance: EN 50363-10-2 U.V. resistance: Yes Water absorption: EN 50363-10-2
	Norm references / Approvals: Reference Standards: IEC 61158 EIA RS485 IEC 62026-3. DESINA Approved UL/CSA Approved: AWM Style 20978 300V/80°C
Electrical & Mechanical Data	Operating temperature: Fixed application -40 to 80 °C Dynamic installation -30 to 70 °C Minimum bending radius: Fixed application 6 x D Dynamic appl. into chain 12 x D Max traslation speed: 3,0 m/sec (subject to correct installation) Max acceleration: 3 m/s ² (subject to correct installation)

Torsion use: Not recommended

Electrical and transmission properties at 20°C

Max operating voltage: 300 V

Test voltage: 1500 V

Max DC conductor resistance:

78,0 Ω/km

54,0 Ω/km

21,8 Ω/km

11,3 Ω/km

Capacitance core/core (nom):

≤ 50 pF/m (data pair) at 800 Hz

Characteristic impedance:

120 Ω (data pair) 1 to 20 MHz

Attenuation TRUNK:

max 0,4 dB/100m at 100 kHz

max 0,8 dB/100m at 500 kHz

max 1,3 dB/100m at 1 MHz

Attenuation DROP:

max 0,9 dB/100m at 100 kHz

max 1,6 dB/100m at 500 kHz

max 2,1 dB/100m at 1 MHz

Min. insulation resistance:

5,0 GΩ x km

Transfer impedance TRUNK:

10 mΩ/m at 100 kHz

10 mΩ/m at 1 MHz

5 mΩ/m at 10 MHz

10 mΩ/m at 30 MHz

30 mΩ/m at 100 MHz

Transfer impedance DROP:

11 mΩ/m at 100 kHz

10 mΩ/m at 1 MHz

7 mΩ/m at 10 MHz

5 mΩ/m at 30 MHz

30 mΩ/m at 100 MHz

Application:

The DeviceNet cable for mobile installation is made with PUR (Polyurethane) to operate on two dynamic CAN connection systems. The transmission protocol used is the standard EIA RS 485. The DeviceNet standards require a cable with two shielded pairs and two types of connections, Trunk and Drop, dedicated to data transmission and power supply for the devices.

Botec P/N	assembly	outer diameter [mm ± 10%]	Cu mass [Kg/km]	cable mass [Kg/km]
	(2xAWG18)+(2xAWG15) TRUNK	12,2	104	200
	(2xAWG24)+(2xAWG22) DROP	7,5	38	80