

## BDV SERIES

### High Performance Devicenet Trunk & Drop BUS Cable



#### APPLICATIONS:

**Devicenet** Devicenet is a BUS system developed by Allen Bradley (Rockwell Automation). These cables are used to interconnect various industrial devices, such as SPS controls or limit switches.

**Devicenet Indoor** Suitable for indoor fixed applications.

**Devicenet Drag Chain (Industrial)** Suitable for drag/energy chain applications.

#### PRODUCT FEATURES:

- ▶ Low capacitance special foam skin polyethylene insulation
- ▶ Special oil resistant SPVC (BDV fixed wiring series)
- ▶ Good reverse bending strength microbe and hydrolysis resistant PUR Sheath (BDVDC drag chain series)
- ▶ UV stabilised
- ▶ Flame retardant
- ▶ Good tensile strength, tearing strength and abrasion resistance (BDVDC drag chain series)
- ▶ Good elongation at break (BDVDC drag chain series)
- ▶ Good dielectric properties (BDVDC drag chain series)
- ▶ Heat, oil and chemical resistant (*See Technical Section*)

#### CONSTRUCTION:

**Conductor** Annealed tinned copper stranded high flexibility (Class 5).

**Insulation** Data pair: Polyethylene. Power supply pair: SPVC or PUR.

**Screening** Collective shield of aluminium/polyester tape c/w tinned copper stranded drain wire and overall tinned copper braided screen.

**Sheath** PVC or PUR.

#### CHARACTERISTICS:

**Operating Temperature Range** -20°C to 80°C (PVC Sheath)  
-40°C to 80°C (PUR Sheath).

**Maximum Conductor Temperature** 80°C.

**Nominal Voltage** 300V.

**Minimum Bending Radius** Fixed 15 x cable diameter.  
(Fixed wiring devicenet cables) / Flexible 5 x cable diameter  
(Devicenet drag chain cables).

**Sheath Colour** Grey (also available in intrinsically safe Blue).

**Standard Core Colours** 1 Pair – Blue, White.

1 Pair Power – Red, Black.

**Relevant Standards** ODVA Devicenet, UL Style: CMG 750C PLTC FT4 (PVC Sheath), UL Style: CMX 750C CL2X (PUR Sheath), CSA Standard CEC:CMG FT4 (1 Pair 18AWG+ 1 Pair 15AWG), CSA Standard CSA FT4 (1Pair 24AWG+ 1 Pair 22AWG), **RoHS** Compliant.

Electrical Data	Devicenet (Trunk) 1 Pair 18AWG + 1 Pair 15AWG	Devicenet (Drop) 1 Pair 24AWG + 1 Pair 22AWG
<b>Characteristic Impedance</b>	120 Ω +/- 10%	120 Ω +/- 10%
<b>Conductor Resistance</b>	45 Ω/km (Loop)	184 Ω/km (Loop)
<b>Insulation Resistance</b>	0.20 GΩ x km min	0.20 GΩ x km min
<b>Mutual Capacitance</b>	39.8 nF/km nom	39.4 nF/km nom
<b>Test Voltage</b>	2.0kV	2.0kV
<b>Attenuation</b>	125 kHz < 0.42 dB/km 125 kHz < dB/km	500 kHz < 0.81 dB/km 500 kHz < dB/km

Code	No. of Cores x Size (mm <sup>2</sup> )	Nearest AWG	Approx. Overall Diameter (mm)	Approx. Weight (Kg/Km)	Outer Sheath Material
<b>DEVICENET FIXED WIRING (INDOOR)</b>					
<b>BDV18/15</b>	(Trunk) 1 Pair 0.8 (DATA) + 1 Pair 1.6 (POWER)	1 Pair 18AWG + 1 Pair 15AWG	12.2	185	SPVC
<b>BDV24/22</b>	(Drop) 1 Pair 0.22 (DATA) + 1 Pair 0.34 (POWER)	1 Pair 24AWG + 1 Pair 22AWG	6.9	68	SPVC
<b>DEVICENET DRAG CHAIN (INDUSTRIAL)</b>					
<b>BDVDC18/15</b>	(Trunk) 1 Pair 0.8 (DATA) + 1 Pair 1.6 (POWER)	1 Pair 18AWG + 1 Pair 15AWG	12	185	PUR
<b>BDVDC24/22</b>	(Drop) 1 Pair 0.22 (DATA) + 1 Pair 0.34 (POWER)	1 Pair 24AWG + 1 Pair 22AWG	7.0	68	PUR

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