

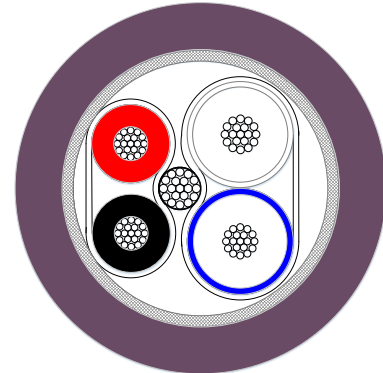
# 24AWG/1PR + 22AWG/1PR DeviceNet Thin Cable

## PVC Outer Sheath



PRODUCT DATA SHEET

DeviceNet is a field bus cable based on proven CAN (Control Area Network) technology with length-related transmission rates (125/250 and 500) kbit/s. Up to 64 participants can communicate in the network with one another. These cable includes two wires for data transmission and also two wires for the power supply. The product with a nominal impedance of 120 Ohm has a moderate UV-resistant and is suitable for fixed installation.



### CONSTRUCTION

#### Element A

<b>Conductor A</b>	Stranded tinned copper
<b>Conductor Size</b>	24AWG, 19 /36
<b>Insulation Material</b>	Foamed Polyethylene
<b>Insulation Thickness</b>	Nom 0.60mm
<b>Core Diameter</b>	Nom.1.9mm

#### Element B

<b>Conductor B</b>	Stranded tinned copper
<b>Conductor Size</b>	22AWG, 19/34
<b>Insulation Material</b>	Polyethylene
<b>Insulation Thickness</b>	Nom. 0.30mm
<b>Core Diameter</b>	Nom.1.4mm
<b>Stranding</b>	Aluminum foil screened Data pair twisted together with Aluminum foil screened Power pair around a drain wire
<b>Drain Wire</b>	22AWG, 19 strands, tinned copper
<b>Braid</b>	Tinned copper wire, coverage min 75%
<b>Outer Sheath Material</b>	Polyvinyl Chloride
<b>Outer Diameter</b>	6.9±0.3mm
<b>Outer Sheath Color</b>	Purple (Similar RAL 4001)

#### Print Legend

ASCENT E478021 \*\* (UL) CM DeviceNet Thin Cable 2 x 24AWG+2 x 22AWG SHIELDED 75°C CE XXXXXM  
 Note: "\*\*\*" is factory code

### COLOR CODE

**Data Pair:** White, Blue  
**Power Pair:** Red, Black

### ELECTRICAL PROPERTIES

<b>Peak Operating Voltage</b>	Max. 300V
<b>Dielectric Strength</b>	Cond. to Cond. 2000V Cond. to Screen 2000V
<b>Conductor Resistance@20°C</b>	Max. 90 Ω/km (Data pair) Max. 55 Ω/km (Power pair)
<b>Insulation Resistance@20°C</b>	Min. 20MΩ.km
<b>Characteristic Impedance</b>	120±15 Ω (1MHz) for Data pair
<b>Capacitance</b>	Nom. 39.8 nF/km (1 kHz) for Data pair
<b>Signal Transit Time</b>	446 ns/100m Max.
<b>Attenuation (Data pair)</b>	Nom. 0.95 dB/100m (125 kHz) Nom. 1.64 dB/100m (500 kHz) Nom. 2.29 dB/100m (1 MHz)

### MECHANICAL & PHYSICAL PROPERTIES

<b>Operating Temperature (°C)</b>	-20°C to +80°C
<b>Min. Bending Radius</b>	Fixed 7.5 x OD Flexing 15 x OD
<b>Sunlight Resistance</b>	UL 1581 Sec.1200
<b>Certification</b>	E478021 UL CM 75°C acc. to UL 444
<b>Reference Standard</b>	UL 444



**Application:** DeviceNet connects industrial devices e.g. limit switches, photoelectric switches, valve islands, motor starters, drives, PLCs, etc

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<b>Design Number</b>	10817
<b>Part Number</b>	32181154
<b>Revision History</b>	
00	2023/07/13 Initial Release
Created L. Jian	Approved A. Huang

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