

**Part Number: 70001E**

**PROFIBUS PA**



**Product Description**

18 AWG, Stranded (7 x 26) TC Conductors, Polyolefin Insulation, TC Drain Wire, Overall Beldfoil® + 85% TC Braid Shield, Black or Blue PVC Jacket

**Technical Specifications**

**Product Overview**

Environmental Space:	Indoor - Euroclass Eca
Suitable Applications:	Instrumentation and computer cable; For data transmission applications; Profibus PA Cable

**Physical Characteristics (Overall)**

**Conductor**

AWG	Stranding	Material	No. of Pairs
18	7x26	TC - Tinned Copper	1

Conductor Count:	2
Total Number of Pairs:	1

**Insulation**

Material	Nominal Diameter	Diameter +/- Tolerance	Nominal Wall Thickness
FPE - Foamed Polyethylene	2.5 mm	0.05 mm	0.65 mm

**Color Chart**

Number	Color
Pair 1	Red & Green

**Outer Shield Material**

Type	Material	Thickness of Foil	Drainwire Material	Drainwire AWG	Drainwire Position	Min. Coverage [%]
Tape	Aluminum/Polyester	9 / 23 µm	TC - Tinned Copper	AWG20/7	In contact with tape and braid	
Braid	TC - Tinned Copper					85 %

**Outer Jacket Material**

Material	Nominal Diameter	Nominal Wall Thickness
PVC (UV stabilised and oil resistant)	8 mm	1.15 mm

**Construction and Dimensions**

**Cabling**

Description	Filler
1 pair and 2 fillers twisted to cable core	Polyethylene (2x) (1.65 mm)

**Electrical Characteristics**

**Conductor DCR**

Max. Conductor DCR	Max. Outer Shield DCR
20.5 Ohm/km	9 Ohm/km

**Capacitance**

Max. Capacitance Conductor to Conductor	Max. Capacitance Unbalance
80 pF/m	4 pF/m

#### Impedance

Frequency [MHz]	Nominal Characteristic Impedance	Nominal Characteristic Tolerance
0.03125 MHz	100 Ohm	20 Ohm

#### High Frequency (Nominal/Typical)

Frequency [MHz]	Nom. Insertion Loss
0.039 MHz	0.3 dB/100m

#### Delay

Nominal Velocity of Propagation (VP) [%]
77 %

#### Voltage

Voltage Rating [V]
300 V

#### Temperature Range

Installation Temp Range:	-15°C To +75°C
Storage Temp Range:	-45°C To +75°C
Operating Temp Range (Flexible Install):	-15°C To +75°C
Operating Temp Range (Fixed Install):	-45°C To +75°C

#### Mechanical Characteristics

Oil Resistance:	IEC 60811-2-1
Max Recommended Pulling Tension:	260 N
Min Bend Radius During Installation:	120 mm
Min Setting Radius:	80 mm

#### Standards

CPR Euroclass:	Eca
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#### Applicable Environmental and Other Programs

EU RoHS Compliance Date (yyyy-mm-dd):	2005-01-01
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#### Flammability, LS0H, Toxicity Testing

ISO/IEC Flammability:	IEC 60332-1-2
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#### Part Number

#### Variants

Item #	Color	Length
70001E.00500	Black	500 m
70001E.01500	Black	500 m
70001E.01120	Black	120 m

#### History

Update and Revision:	Revision Number: 0.152 Revision Date: 09-02-2019
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