



Product: [70001NH](#)

Profibus PA, 1PR #18 Str TC, PO ins, F/B, LSNH Jkt, 300 V



Product Description

Profibus PA, 1 Pair AWG 18 Tinned Copper - Stranded, Polyolefin (PO, PE, PP) insulation, Foil + Braid(s) shielding, LSZH / FRNC jacket , 300 V

Technical Specifications

Product Overview

Suitable Applications:	Profibus PA or Foundation FieldBus PA
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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
PE - Polyethylene (Foam)	2.5 mm	0.05 mm	0.65 mm

Color Chart

Number	Color
Pair 1	Red & Green

Outer Shield

Type	Material	Thickness of Foil	Drainwire Material	Drainwire AWG	Drainwire Position	Min. Coverage [%]
Tape	Bi-Laminate (Alum+Poly)	9 / 23 µm	TC - Tinned Copper	AWG20/7	In contact with tape and braid	
Braid	Tinned Copper (TC)					85%

Outer Jacket

Material	Nominal Diameter	Nominal Wall Thickness
LSZH - Low Smoke Zero Halogen (Flame Retardant)	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 Temperature Range:	-15°C To +70°C
Storage Temperature Range:	-45°C To +70°C
Operating Temp Range (Flexible Install):	-15°C To +70°C
Operating Temp Range (Fixed Install):	-45°C To +70°C

Mechanical Characteristics

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

Standards

CPR Euroclass:	Eca
CENELEC Compliance:	EN 50290-2-20

Applicable Environmental and Other Programs

Environmental Space:	Indoor
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Suitability

Suitability - Sunlight Resistance:	Yes
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Flammability, LSOH, Toxicity Testing

IEC Flammability:	IEC 60332-3-24
IEC 60754-1 - Halogen Amount:	Zero
IEC 60754-2 - Halogen Acid Gas Amount - Max. Conductivity:	2.5 µS/mm
IEC 60754-2 - Halogen Acid Gas Amount - Min. pH:	4.3

Related Part Numbers

Variants

Item #	Color	Put-Up Type	Length	EAN
70001NH.02120	Black	Reel	120 m	8719605162809
70001NH.02500	Black	Reel	500 m	8719605009166
70001NH.021000	Black	Reel	1,000 m	8719605009159
70001NH.03500	Blue	Reel	500 m	8719605009180
70001NH.031000	Blue	Reel	1,000 m	8719605009173
70001NH.04500	Orange	Reel	500 m	8719605192394

History

Update and Revision:	Revision Number: 0.217 Revision Date: 02-15-2024
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