



Product: [3076ELS](#)

Profibus PA, 1PR #18 Str TC, PO ins, OS, LSNH Jkt, 300V SWA

Product Description

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

Technical Specifications

Product Overview

Suitable Applications:	Profibus PA or Foundation FieldBus PA exposure to rodent, crush, or cut through force, harsh environment, outdoors, where multiple cable runs are required, data transmission applications such as Profibus DP or PA, Instrumentation and computer cable, etc. exposure to temperature extremes, humidity/moisture, dust, and oil.
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Physical Characteristics (Overall)

Conductor

AWG	Stranding	Material
18	7x26	TC - Tinned Copper

Conductor Count:	2
Total Number of Pairs:	1

Insulation

Material	Nominal Diameter	Diameter +/- Tolerance	Nominal Wall Thickness
PE - Polyethylene	2.55 mm	0.05 mm	0.67 mm

Color Chart

Number	Color
Option .00 with blue inner- and outerjacket	White & Black
Option .02 with yellow inner- and outerjacket	White & Black
Option .03 with orange inner- and outerjacket	White & Black
Option .05 with blue inner- and orange outer jacket	White & Black
Option .07 with orange inner- and black outer jacket	Orange & Blue

Inner Shield

Type	Material	Drainwire Material	Drainwire AWG
Tape	Bi-Laminate (Alum+Poly)	TC - Tinned Copper	AWG20/7

Inner Jacket

Material	Nominal Diameter	Nominal Wall Thickness
LSZH - Low Smoke Zero Halogen (Flame Retardant)	7.5 mm	1.15 mm

Outer Jacket

Material	Nominal Diameter	Nominal Wall Thickness
LSZH - Low Smoke Zero Halogen (Flame Retardant)	13 mm	1.85 mm

Construction and Dimensions

Armor

Type of Armor	Material	Thickness of Armoring Wires	Coverage Percentage
Steel Wire Armoring	Galvanized steel wire	0.9 mm	Min. 95%

Electrical Characteristics

Conductor DCR

Max. Conductor DCR	Max. Outer Shield DCR
20.5 Ohm/km	26 Ohm/km

Capacitance

Max. Capacitance Conductor to Conductor	Max. Capacitance Conductor to Shield	Max. Capacitance Unbalance
80 pF/m	155 pF/m	4 pF/m

Inductance

Nominal Inductance
0.62 uH/m

Impedance

Frequency [MHz]	Nominal Characteristic Impedance	Nominal Characteristic Tolerance
0.03125 MHz	100 Ohm	5 Ohm

Delay

Nominal Velocity of Propagation (VP) [%]
66%

High Frequency

Frequency [MHz]	Max. Insertion Loss (Attenuation)
0.01 MHz	0.2 dB/100m
0.039 MHz	0.3 dB/100m
0.1 MHz	0.6 dB/100m
0.5 MHz	2.8 dB/100m
1 MHz	3.7 dB/100m

Voltage

Voltage Rating [V]
300 V

Temperature Range

Installation Temperature Range:	-15°C To +80°C
Storage Temperature Range:	-45°C To +80°C
Operating Temp Range (Flexible Install):	-15°C To +80°C
Operating Temp Range (Fixed Install):	-45°C To +80°C

Mechanical Characteristics

Oil Resistance:	IEC 60811-404
Min. Bend Radius During Installation:	260 mm

Standards

ISO/IEC Compliance:	IEC 61158-2
CPR Euroclass:	Eca
CENELEC Compliance:	EN 50290-2-27, EN 50288-7

Applicable Environmental and Other Programs

Environmental Space:	Indoor, Indoor/Outdoor, Outdoor, Indoor/Outdoor - Euroclass Eca
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Suitability

Suitability - Outdoor:	Yes
Suitability - Sunlight Resistance:	Yes

Flammability, LSOH, Toxicity Testing

IEC Flammability:	IEC 60332-1-2, 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
IEC 61034-2 - Smoke Density Min. Transmittance:	60%

Related Part Numbers

Variants

Item #	Color	Put-Up Type	Length	EAN
3076ELS.07500	Black	Reel	500 m	8719605180131
3076ELS.00500	Blue	Reel	500 m	8719605005397
3076ELS.001000	Blue	Reel	1,000 m	8719605005380
3076ELS.03320	Orange	Reel	320 m	8719605005441
3076ELS.03500	Orange	Reel	500 m	8719605005458
3076ELS.031000	Orange	Reel	1,000 m	8719605005434
3076ELS.051000	Orange	Reel	1,000 m	8719605005465
3076ELS.031150	Orange	Reel	1,150 m	8719605179968
3076ELS.02500	Yellow	Reel	500 m	8719605005427
3076ELS.021000	Yellow	Reel	1,000 m	8719605005403
3076ELS.021100	Yellow	Reel	1,100 m	8719605005410

History

Update and Revision:	Revision Number: 0.238 Revision Date: 02-03-2025
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