



Part Number: 3076ELS

Foundation FieldBus Type A Steel Wire Armour

Product Description

18 AWG, Stranded (7 x 26) TC Conductors, Polyolefin Insulation, TC Drain Wire, Beldfoil® Shielding, LSZH Inner Jacket (Black and Blue), Steel Wire Armour, Black LSZH Outer Jacket

Technical Specifications

Product Overview

Environmental Space:	Indoor - Euroclass Eca
Suitable Applications:	Instrumentation and computer cable; For data transmission applications like Profibus or Foundation FieldBus

Physical Characteristics (Overall)

Conductor

AWG	Stranding	Material
18	7x26	TC - Tinned Copper

Conductor Count:	2
Total Number of Pairs:	1
Conductor Size:	18 AWG

Insulation

Material	Nominal Diameter	Diameter +/- Tolerance	Nominal Wall Thickness
PO - Polyolefin	2.55 mm	0.05 mm	0.67 mm

Color Chart

Number	Color	Number	Color
Option 1 with blue inner- and outerjacket	White & Black	Option 3 with orange inner- and outerjacket	White & Black
Option 2 with yellow inner- and outerjacket	White & Black	Option 4 with orange inner- and black outerjacket	Orange & Blue

Inner Shield Material

Type	Material	Drainwire Material	Drainwire AWG
Tape	Aluminum / Polyester	Tinned copper	AWG20/7

Inner Jacket Material

Material	Nominal Diameter	Nominal Wall Thickness
FRNC / LSZH	7.5 mm	1.15 mm

Outer Jacket Material

Material	Nominal Diameter	Nominal Wall Thickness
LSZH / FRNC (UV stabilised)	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 Freq

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 Temp Range:	-15°C To +80°C
Storage Temp 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:	170 mm

Standards

ISO/IEC Compliance:	IEC 61158-2
CPR Euroclass:	Eca
CENELEC Compliance:	EN 50290-2-27, EN50288-7

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 and IEC 60332-3-24
Amount of Halogen acc. to IEC 60754-1 & EN50267-1:	Zero

Part Number

Variants

Item #	Color	Length
3076ELS.07500	Black	500 m
3076ELS.001000	Blue	1,000 m
3076ELS.00500	Blue	500 m
3076ELS.031000	Orange	1,000 m

3076ELS.03320	Orange	320 m
3076ELS.03500	Orange	500 m
3076ELS.051000	Orange	1,000 m
3076ELS.K31000	Orange	1,000 m
3076ELS.031150	Orange	1,150 m
3076ELS.021000	Yellow	1,000 m
3076ELS.02500	Yellow	500 m
3076ELS.021100	Yellow	1,100 m

History

Update and Revision:	Revision Number: 0.163 Revision Date: 06-04-2019
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