



**Part Number: 3077ELS**

Foundation FieldBus Type B and High Speed Steel Wire Armour

**Product Description**

22 AWG, Stranded (7 x 30) TC Conductors, Polyolefin Insulation, TC Drain Wire, Beldfoil® Shielding, Steel Wire Armour, FRNC Jacket

**Technical Specifications**

**Product Overview**

Environmental Space:	Outdoor
Suitable Applications:	Instrumentation and computer cable; For data transmission applications

**Physical Characteristics (Overall)**

**Conductor**

AWG	Stranding	Material	No. of Pairs
22	7x30	TC - Tinned Copper	1

Conductor Count:	2
Total Number of Pairs:	1
Conductor Size:	22 AWG

**Insulation**

Material	Nominal Diameter	Diameter +/- Tolerance	Nominal Wall Thickness
PO - Polyolefin	1.5 mm	0.05 mm	0.375 mm

**Color Chart**

Number	Color
Pair 1	White & Black

**Inner Shield Material**

Type	Material	Drainwire Material	Drainwire AWG
Tape	Aluminum / Polyester	Tinned copper	AWG22/7

**Inner Jacket Material**

Material	Color	Nominal Diameter	Nominal Wall Thickness
FRNC / LSZH	Orange or Blue	7.5 mm	2.15 mm

**Outer Jacket Material**

Material	Color	Nominal Diameter	Nominal Wall Thickness
LSZH / FRNC	Blue or Black	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
52.5 Ohm/km	41.5 Ohm/km

#### Capacitance

Max. Capacitance Conductor to Conductor	Max. Capacitance Conductor to Shield
85 pF/m	160 pF/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	0.61 dB/100m
0.039 MHz	0.67 dB/100m
0.1 MHz	0.91 dB/100m
0.5 MHz	3.5 dB/100m
1 MHz	5.1 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:	ASTMD741
Max Recommended Pulling Tension:	50 N
Min Bend Radius During Installation:	140 mm

#### Standards

Other Specification:	BS 7655 section 6.1 table 1, LTS 3
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#### Applicable Environmental and Other Programs

EU RoHS Compliance Date (yyyy-mm-dd):	2012-11-27
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#### Flammability, LS0H, Toxicity Testing

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

#### Part Number

#### Variants

Item #	Color	Length
3077ELS.011000	Black	1,000 m
3077ELS.01500	Black	500 m

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