

# LANmark Industry Copper cables

LANMARK INDUSTRY S/FTP AWG23 CAT 6A LSZH DCA ORANGE + PE FCA BLACK 500M REEL

**Aginode Ref:** N10i.005-ODKF

- For installation in industrial premises
- High shielding performance for harsh environments
- Enhanced mechanical properties
- Designed to support industrial Ethernet based automation
- Optimised for use with LANmark connectors
- PE outer jacket
- LSZH inner jacket with reaction-to-fire performance according to CPR classification Dca-s2,d1,a1 (h/EN50575:2014+A1:2016)

## Specification

The high performing LANmark Industry S/FTP LSZH + PE cables meet or exceed all Category 6A parameters. They comply with the electrical and mechanical requirements of the ISO/IEC 11801-3:2017 standard for industrial premises and with the MICE rating for environmental conditions.

When terminating the cable with LANmark-6A connectors, the Class EA Permanent Link requirements of ISO/IEC 11801 are met.

When used with LANmark-6 connectivity, optimal headroom to 250MHz Class E performance is ensured.

The cables offer a protective PE sheath which is water, UV and moisture resistant. They can be installed outdoors in ducts and are suitable for use indoors when the PE sheath is removed.

This cable version is made with an inner LSZH jacket complying with reaction-to-fire performance Dca-s2,d1,a1 according to the European CPR classification. The cable with its outer PE jacket is classified Fca.

## Application

LANmark Industry S/FTP LSZH + PE cables will support Industrial Ethernet applications as well as high speed data applications.



## STANDARDS

EN 50173  
EN 50288-4-1  
IEC 61156-5  
IEEE 802.3bt (PoE++)  
ISO/IEC 11801  
ISO/IEC 24702

All drawings, designs, specifications, plans and particulars of weights, size and dimensions contained in the technical or commercial documentation of Aginode is indicative only and shall not be binding on Aginode or be treated as constituting a representation on the part of Aginode.

- 10Base-T,
- 100 Base-T
- 1GBase-T
- 10GBase-T
- Industrial Ethernet

### Screening

LANmark Industry S/FTP LSZH + PE cables consist of individually screened pairs, bundled by an overall braid. They comply with the EMC requirements for screened cables and show excellent transfer impedance values. They are designed for electrically "noisy" environments.

#### Transfer impedance (Grade 1)

- 10mOhm/m at 1 MHz
- 10mOhm/m at 10 MHz
- 30mOhm/m at 30 MHz
- 60mOhm/m at 100 MHz

# LANmark Industry S/FTP AWG23 Cat 6A LSZH Dca Orange + PE Fca Black 500m reel

## Characteristics

### Construction characteristics

Outer sheath	PE
Sheath colour	Orange / Black
Halogen free	Yes
Lead free	Yes
Inner sheath	Low smoke, zero halogen thermoplastic compound
Type of cable	S/FTP
Individual screen	Aluminium / Polyester tape
Overall screen	Tinned copper braid

### Dimensional characteristics

Approximate weight	66 kg/km
Outer Diameter	8.6 mm
Number of pairs	4
Conductor cross-section (AWG/KCMIL)	23
Diameter over insulation	1.2 mm

### Electrical characteristics

Mutual capacitance	56 nF/km
Maximal operating frequency	600 MHz
Characteristic impedance	100 Ohm
Max. DC resistance of the conductor at 20°C	95 Ohm/km

### Mechanical characteristics

Maximum permanent tensile load	0.1 kN
Maximum pulling force by laying	0.12 kN

### Transmission characteristics

Skew	25 ns/100m
Nominal Velocity of Propagation (NVP)	82 %

All drawings, designs, specifications, plans and particulars of weights, size and dimensions contained in the technical or commercial documentation of Aginode is indicative only and shall not be binding on Aginode or be treated as constituting a representation on the part of Aginode.

Coupling attenuation at 30 MHz	80 dB
Propagation delay, max. 100 MHz	535 ns/100m

### Usage characteristics

Electro magnetic interference resistance	Yes
Field of application	Fixed installations
Length	500 m
Operating temperature, range	-20...70 °C
Silicone free	Yes
Category	Cat. 6A
Fire load	700 MJ/km
Flame retardant	IEC 60332-1
Packaging	Reel
Ambient installation temperature, range	-5...70 °C
RoHS compliant	Yes
Minimum Bend Radius - During Installation (under Tension)	130 mm
Minimum Bend Radius - Installed	86 mm

### Documentation

Freetable LM6A FFTP V3.xls xls — 25.5 KB [Download](#) ↓