

# LANmark-6 Cable

LANmark-6 F1/UTP LSZH 500m reel

## Contact

Cabling Solutions  
Phone: +32 2 363 38 00  
info.ncs@nexans.com

Nexans ref.: [N100.624](#)

- Comply with all Category 6 cable standards
- Support Class E applications
- Central cross member maintains geometry and performance
- Tested up to 350MHz

## DESCRIPTION

### Application

Nexans LANmark-6 cables are the ideal solution for most of today's network requirements in normal office environments. They are manufactured and tested to the latest Category 6 specifications defined in the International and American cable standards and are designed to meet the quality and performance criteria needed to support all applications up to 250 MHz.

- 10baseT Ethernet
- 100baseTX Fast Ethernet
- 1000baseTX Gigabit Ethernet
- 155 MBit ATM
- 622 MBit ATM
- 1.2 Gbit ATM
- future class E applications

### Design

The LANmark-6 F1/UTP cables have AWG 24 solid copper wires and comply with IEC 60228.

The PE central cross filler helps maintain the stability of the cable geometry and reduces the risk of a reduction in performance when bending the cable.

The cables are available with a Dark Grey PVC or an Orange LSZH sheath. Both versions have flame retardant properties compliant with IEC 60332-1.

### Performance

Tested to 350 MHz and with guaranteed performance to 250 MHz, Nexans LANmark-6 cables exceed the requirements of the International, European and American cable standards, including ISO/IEC 11801, IEC 61156-5, EN 50173, EN 50288 and TIA/EIA 568-C.2.

### Installation



# LANmark-6

## STANDARDS

**International** EN 50288;  
IEC 61156-5; ISO/IEC 11801

**National** ANSI/TIA-568-C.2



Ambient installation T°C range  
-10 .. 60 °C



Operating temp.  
-20 .. 60 °C



Flame retardant  
IEC 60332-1



Smoke density  
IEC 61034



Gases toxicity  
IEC 60754



Gases corrosivity  
IEC 60754

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

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LANmark-6 F1/UTP cables have a shielded construction offering a global foil around the 4 pairs with the aluminium side facing outwards. This increases installation efficiency as the foil does not need to be folded back to establish contact with the EMC rear cover of the LANmark connectors.

To support the correct set-up of hand held analysers for installation testing, the actual cable NVP value is given in the cable's print legend.

## Guarantees

The LANmark-6 cable performance is guaranteed to meet or exceed the requirements of the above mentioned standards.

Traceability codes on both cable and packaging ensure quality validation of the installed cable.

Installations with LANmark-6 cable and connectivity are qualified for a 25 year full system warranty, which includes Parts, Channel Performance, Application Support and Labour, as described in the Nexans Certified System Warranty.



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## CHARACTERISTICS

### Construction characteristics

Type of cable	F/UTP
Outer sheath	LSZH
Colour	Orange
Screen	Aluminium foil

### Dimensional characteristics

Diameter over insulation	1.13 mm
Conductor cross-section (AWG)	24
Nominal outer diameter	7.3 mm
Approximate weight	52 kg/km

### Electrical characteristics

Mutual capacitance	56 nF/km
Max. DC resistance of the conductor at 20°C	85 Ohm/km
Characteristic impedance	100 Ohm

### Transmission characteristics

Attenuation Crosstalk Ratio, 250MHz	5.5 dB/100m
Skew	30 ns/100m
Nominal Velocity of Propagation (NVP)	70 %
Propagation delay, max. 100 MHz	536 ns/100m
Coupling attenuation at 30 MHz	>70 dB

### Mechanical characteristics

Maximum operating pulling force	100 N
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### Usage characteristics

Category	Cat. 6
Range	LANmark-6
Minimum Bend Radius - During Installation (under Tension)	58 mm
Minimum Bend Radius - Installed	29 mm
Ambient installation temperature, range	-10 .. 60 °C
Operating temperature, range	-20 .. 60 °C
Flame retardant	IEC 60332-1
Smoke density	IEC 61034
Gases toxicity	IEC 60754
Gases corrosivity	IEC 60754
Length	500 m
Packaging	Reel
Field of application	Indoor

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## ELECTRICAL PERFORMANCE LANMARK-6 CABLES

All values are specified at 20°C

Freq. in MHz	IL in Db/100m		NEXT in dB		PSNEXT in dB		ACR-F in dB		PS ACR-F in dB		RL in dB	
	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.
1	2.0	2.0	74.3	80.3	72.3	78.3	67.8	72.8	64.8	69.8	20.0	22.0
4	3.8	3.8	65.3	71.3	63.3	69.3	55.8	60.8	52.8	57.8	23.0	25.0
10	6.0	6.0	59.3	65.3	57.3	63.3	47.8	52.8	44.8	49.8	25.0	27.0
16	7.6	7.6	56.2	62.2	54.2	60.2	43.7	48.7	40.7	45.7	25.0	27.0
20	8.5	8.5	54.8	60.8	52.8	58.8	41.8	46.8	38.8	43.8	25.0	27.0
31.25	10.7	10.7	51.9	57.9	49.9	55.9	37.9	42.9	34.9	39.9	23.6	25.6
62.5	15.4	15.4	47.4	53.4	45.4	51.4	31.9	36.9	28.9	33.9	21.5	23.5
100	19.8	19.8	44.3	50.3	42.3	48.3	27.8	32.8	24.8	29.8	20.1	22.1
155	25.2	25.2	41.4	47.4	39.4	45.4	24.0	29.0	21.0	26.0	18.8	20.8
200	29.0	29.0	39.8	45.8	37.8	43.8	21.8	26.8	18.8	23.8	18.0	20.0
250	32.8	32.8	38.3	44.3	36.3	42.3	19.8	24.8	16.8	21.8	17.3	19.3
300	-	36.4	-	43.1	-	41.1	-	23.3	-	20.3	-	18.8
350	-	39.8	-	42.1	-	40.1	-	21.9	-	18.9	-	18.3