

# LANmark-7A Cable

LANmark-7A 1250 S/FTP AWG23 Cat 7A 1250MHz LSZH Cca s1a d1 a1  
Orange 1000m reel

Nexans Ref.: N100.371-OC

- High Quality Data Cables for simultaneous use with POE+ and POE++
- All Cable exceed Category 7A in terms of ACR and Frequency Range
- Superior Performance with positive ACR over the full frequency range
- Optimised for use with LANmark-7A GG45 connector
- Easy to install with GG45 connectivity through special foil construction
- Enhanced reaction-to-fire performance according to CPR classification Cca-s1a,d1,a1 (h/EN50575:2014+A1:2016)

## DESCRIPTION

### p>Description

LANmark-7A is a 4 pair S/FTP cable with individual pair foils and an overall braid offering superior performance up to at least 1250MHz. It is fully compliant with the latest Category 7A standard and offers even large headroom above the Cat 7A requirement. Due to this excellent electrical performance and positive ACR up to at least 1250MHz the cable supports the applications like 10GBASE-T as well as 25GBASE-T

### Application

LANmark-7A is the highest performing standardised cabling solution in the market and will support all current Ethernet applications up to 25G and all planned applications using cabling up to Class FA.

- All Ethernet applications including
- 10/100/1000Base-T
- 1000Base-TX
- 10GBase-T
- 25GBase-T
- POE, POE+, POE++ (Draft)
- Cable sharing applications including CATV up to 862MHz
- Any future Class FA application

### Installation

Ease of Installation is one of the main features of the LANmark-7A cable. Extra attention has been paid to ensure that the screen coverage is maintained and foils do not open during installation. The cable has been specially designed to be used in conjunction with the LANmark-7A GG45 12C connector.

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.



**LANmark-7A**

## DECLARATION OF PERFORMANCE

Cca-s1a,d1,a1

## STANDARDS

International EN 50173-1;  
EN 50288-4-1; IEC 60332-3-24;  
IEC 61156-5; IEEE 802.3bt (PoE ++); ISO/IEC 11801



Lead free  
Yes



Ambient installation T°  
C range  
0 - 50 °C



Operating temp.  
-20 - 60 °C



Flame retardant  
IEC 60332-1



Fire retardant  
IEC 60332-3-24



Smoke density  
IEC 61034-2



Gases corrosivity  
IEC 60754-1, IEC  
60754-2

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## CHARACTERISTICS

### Construction characteristics

|               |                                         |
|---------------|-----------------------------------------|
| Type of cable | S/FTP                                   |
| Screen        | Aluminium foil + tinned copper braiding |
| Drain wire    | No                                      |
| Lead free     | Yes                                     |
| Outer sheath  | LSZH                                    |
| Sheath colour | Orange                                  |

### Dimensional characteristics

|                               |          |
|-------------------------------|----------|
| Number of pairs               | 4        |
| Diameter over insulation      | 1,45 mm  |
| Nominal outer diameter        | 7,9 mm   |
| Conductor cross-section (AWG) | 23       |
| Approximate weight            | 68 kg/km |

### Electrical characteristics

|                                             |           |
|---------------------------------------------|-----------|
| Characteristic impedance                    | 100 Ohm   |
| Max. transfer impedance at 30 MHz (Ohm/km)  | 50 Ohm/km |
| Max. DC resistance of the conductor at 20°C | 80 Ohm/km |
| Mutual capacitance                          | 45 nF/km  |

### Transmission characteristics

|                                       |             |
|---------------------------------------|-------------|
| Skew                                  | 25 ns/100m  |
| Nominal Velocity of Propagation (NVP) | 82 %        |
| Propagation delay, max. 100 MHz       | 536 ns/100m |
| Coupling attenuation at 30 MHz        | >85 dB      |

### Mechanical characteristics

|                                 |       |
|---------------------------------|-------|
| Maximum operating pulling force | 100 N |
|---------------------------------|-------|

### Usage characteristics

|                                                           |                          |
|-----------------------------------------------------------|--------------------------|
| Category                                                  | Cat. 7A                  |
| Range                                                     | LANmark-7A               |
| Ambient installation temperature, range                   | 0 - 50 °C                |
| Operating temperature, range                              | -20 - 60 °C              |
| Minimum Bend Radius - During Installation (under Tension) | 63 mm                    |
| Minimum Bend Radius - Installed                           | 32 mm                    |
| Flame retardant                                           | IEC 60332-1              |
| Fire retardant                                            | IEC 60332-3-24           |
| Smoke density                                             | IEC 61034-2              |
| Gases corrosivity                                         | IEC 60754-1, IEC 60754-2 |
| Length                                                    | 1000 m                   |
| Packaging                                                 | Reel                     |