

## CU SPE 1P

Data cable, S/FTP, AWG26/7, Euroclass E<sub>ca</sub>

600 MHz



- 1 Inner conductor: AWG26/7, stranded copper wires
- 2 PE insulated conductor: Ø 1.15 mm
- 3 Screen (pair): Alu PETP foil
- 4 Overall screen: Tinned braided copper
- 5 Outer sheath: FRNC/LSZH



### Description

Electrically and mechanically high-quality 1-pair cable for Single Pair Ethernet (SPE) application and for frequencies up to 600 MHz. Complies and exceeds the requirements of ISO/IEC 11801-1 Amd 1 "General Requirements", ISO/IEC 11801-3 Amd 1 "Industrial Premises", ISO/IEC 11801-6 Amd 1 "Distributed Building Services", TR 11801-9906 "one pair channel" and IEC 61156-12 "Symmetrical single pair cables with transmission characteristics up to 600 MHz".

Excellent shielding effectiveness due to individually screened pair and overall copper braid.

Compatible with all current Single Pair Ethernet connecting hardware in accordance with IEC 63171 series.

### Application

Flexible data cable with stranded conductor suitable for patch cords and equipment cords in a Single Pair Ethernet environment.

For the transmission of digital and analogue data, voice and video signals.

Suitable for IP based 2-wire bus applications with conductor wire size of AWG 26/7.

Applicable for Power over Data Line (PoDL) and for 1-pair PoE.

### General properties

|                          |                                                                      |
|--------------------------|----------------------------------------------------------------------|
| Field of application     | Single pair Ethernet                                                 |
| Wire colour              | white/blue                                                           |
| Installation temperature | 0 °C - +50 °C                                                        |
| Operating temperature    | -20 °C - +70 °C                                                      |
| Outer sheath material    | FRNC/LSZH                                                            |
| Imprint                  | DATWYLER «cable type» «additional text» «batch number» «meter marks» |

## Electrical properties

|                                                 |                      |
|-------------------------------------------------|----------------------|
| Category                                        | Single pair Ethernet |
| Coupling attenuation                            | 70 dB                |
| Impedance at 100 MHz, $\pm 5\Omega$             | 100 $\Omega$         |
| Near end unbalance attenuation LCL at 1-600 MHz | 40 dB                |
| NVP %                                           | 78                   |
| Operating capacity                              | 42 pF/m              |
| Segregation class                               | d                    |
| Shielding                                       | shielded             |
| Transfer impedance                              | 10 m $\Omega$ /m     |

| Frequency [MHz] | Attenuation [dB] (10M) | Return Loss [dB] |
|-----------------|------------------------|------------------|
| 1               | 0.26                   | 25               |
| 4               | 0.5                    | 27               |
| 10              | 0.79                   | 30               |
| 100             | 2.5                    | 25               |
| 250             | 3.9                    | 25               |
| 500             | 5.6                    | 24               |
| 600             | 6.0                    | 23               |

The performance data given are typical measured values.

## Mechanical properties

|                                              |                          |
|----------------------------------------------|--------------------------|
| Solid / Flex                                 | Stranded wire (flexible) |
| AWG                                          | 26                       |
| Maximum tensile strength                     | 14 N                     |
| Minimum bending radius permanently installed | 28 mm                    |
| Repeated bending                             | 56 mm                    |

## Standards

|                                 |                                                      |
|---------------------------------|------------------------------------------------------|
| Cat./Class                      | Single pair Ethernet SPE and IEC 61156-12 guaranteed |
| PoDL (PoE)                      | IEEE 802.3bu                                         |
| Reaction to fire (Euroclasses)  | EN 13501-6: E <sub>ca</sub>                          |
| Zero halogen no corrosive gases | IEC 60754-1/-2, EN 60754-1/-2                        |
| Flame propagation               | IEC 60332-1-2, EN 60332-1-2                          |
| Smoke density                   | IEC 61034-1/-2, EN 61034-1/-2                        |
| Cables standard                 | ISO/IEC 61156-12                                     |

## Versions

| Material number | Product        | Reaction to fire | Dimensions n x p x [mm <sup>2</sup> (AWG)] | Outer sheath colour | Outer sheath dimensions [mm] | CU rate [kg/km] | Weight [kg/km] | Fire load [kWh/m] | GTIN / EAN     |
|-----------------|----------------|------------------|--------------------------------------------|---------------------|------------------------------|-----------------|----------------|-------------------|----------------|
| 19466300EK      | CU SPE 1P flex | E <sub>ca</sub>  | 1 x 2 x 0.132 (AWG26)                      | grey                | 3.5                          | 9.5             | 18             | 0.05              | 40393910216776 |