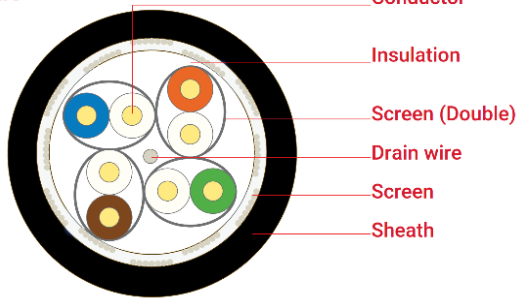




Cable structure



Conductor: Electrolytic copper wire,  $\varnothing$  22AWG

Insulation: Physical foam PE, in compliance with TIA 568 insulation colour coding 70°C, EN 50290-2-23

Screen (Double): Al-Pet tape min. 100% coverage

Drain wire: Tinned copper,  $\varnothing$  26AWG

Screen: Tinned braided copper wire, 40% coverage

Sheath: PE - RAL 9011 Black,  $\varnothing$  7.8 mm 80°C, EN 50290-2-24

## Applications

Utilising physical foam insulation technology, this data cable range is designed for analogue and digital signal transmission in audio, video and data applications supporting 1.2 GHz, 10Gbit/s 10 Gigabit Ethernet. Cables meet the requirements of structural cabling standards including ANSI EIA/TIA 568, ISO/IEC 11801 and EN 50173 Class FA.

IEEE 802.3:10Base-T; 100Base-T; 1000Base-T; 10GBase-T IEEE 802.5 16 MB; ISDN; TPDDI; ATM  
Power over Ethernet (PoE) / PoE+

## Standards

ISO/IEC 11801 2nd ed., IEC 61156-7

EN 50173-1

## Fire performance

Vertical flame propagation EN 60332-1-2 (LSZH)

Corrosive gas EN 60754-1/2 (LSZH)

Smoke density EN 61034-2 (LSZH)

## EU declaration of conformity

LVD Low Voltage Directive 2014/35/EU

RoHS Restriction of Hazardous Substances 2011/65/EU

## Product Code

232852424

## Specifications

|                                |         |                                  |
|--------------------------------|---------|----------------------------------|
| <b>Temperature range</b>       | fixed   | -20°C ...+60°C                   |
|                                | flexing | 0°C ...+50°C                     |
| <b>Bending radius</b>          | fixed   | min. 4 x D                       |
|                                | flexing | min. 8 x D                       |
| <b>Tensile strength</b>        | max.    | 135 N                            |
| <b>Crushing strength</b>       | min.    | 1000 N/10 cm                     |
| <b>Impact strength</b>         | min.    | 10 impacts                       |
| <b>Conductor resistance</b>    | max.    | 60 $\Omega$ /km                  |
| <b>Resistance imbalance</b>    | max.    | 2%                               |
| <b>Insulation resistance</b>   | min.    | 5000 M $\Omega$ x m              |
| <b>Capacitance</b>             | nom.    | 42 pF/m                          |
| <b>Capacity imbalance</b>      | max.    | 1600 pF/km                       |
| <b>Rated impedance</b>         |         | 100 $\pm$ 5 $\Omega$<br>@100 MHz |
| <b>Velocity of propagation</b> |         | 78-80%                           |
| <b>Propagation delay</b>       | max.    | 430 ns/100 m                     |
| <b>Signal delay</b>            | max.    | 25 ns/100 m                      |
| <b>Test voltage</b>            |         | 1000 V                           |
| <b>Operating voltage</b>       | max.    | 125 V                            |
| <b>TCL</b>                     | min.    | "Level 2"                        |
| <b>Coupling attenuation</b>    |         | "Type Ib"                        |
| <b>Transfer Impedance</b>      |         | "Class 1"                        |
| <b>Segregation class</b>       |         | "d" EN 50174-2                   |

## SYS1500 S/F22 PE Category 7A+ S/FTP 4x2x22AWG

Transmission characteristics @ 20°C

| Frequency [MHz] | Attenuation [dB/100 m] typ.max. |      | NEXT [dB] typ.max. |      | PS-NEXT [dB] typ.max. |      | ACR [dB/100 m] typ.max. |      | PS-ACR [dB/100 m] typ.max. |      | ACR-F [dB/100 m] typ.max. |       | PS-ACR-F [dB/100 m] typ.max. |      | RL [dB] typ.max. |      |
|-----------------|---------------------------------|------|--------------------|------|-----------------------|------|-------------------------|------|----------------------------|------|---------------------------|-------|------------------------------|------|------------------|------|
| 1               | 1.7                             | 1.9  | 105                | 78   | 102                   | 75   | 103                     | 76.1 | 100                        | 76.1 | 100                       | 73.1  | 110                          | 78   | 107              | 75   |
| 4               | 3.2                             | 3.5  | 105                | 78   | 102                   | 75   | 102                     | 74.5 | 99                         | 74.5 | 99                        | 71.5  | 108                          | 78   | 105              | 75   |
| 10              | 4.9                             | 5.4  | 105                | 78   | 102                   | 75   | 100                     | 72.6 | 97                         | 72.6 | 97                        | 69.6  | 105                          | 74   | 102              | 71   |
| 100             | 16.1                            | 17.5 | 105                | 76   | 102                   | 73   | 89                      | 58.5 | 86                         | 58.5 | 86                        | 55.5  | 95                           | 54   | 92               | 51   |
| 250             | 26                              | 28.5 | 105                | 70   | 102                   | 67   | 79                      | 41.5 | 76                         | 41.5 | 76                        | 38.5  | 85                           | 46   | 82               | 43   |
| 500             | 37.2                            | 41.8 | 99                 | 65.5 | 96                    | 62.5 | 62                      | 23.7 | 59                         | 23.7 | 59                        | 20.7  | 71                           | 40   | 78               | 37   |
| 600             | 40.2                            | 46.3 | 96                 | 64.3 | 93                    | 61.3 | 56                      | 18   | 53                         | 18   | 53                        | 15    | 63                           | 38.4 | 60               | 35.4 |
| 800             | 49                              | 56.9 | 93                 | 62   | 90                    | 59   | 44                      | 5.1  | 41                         | 5.1  | 41                        | 2.1   | 56                           | 35.3 | 53               | 32.3 |
| 1000            | 54.8                            | 62   | 88                 | 61   | 85                    | 58   | 33                      | -1   | 30                         | -1   | 30                        | -4    | 52                           | 34   | 49               | 31   |
| 1200            | 58.0                            | 69   | 85                 | 59.8 | 82                    | 56.8 | 27                      | -9.2 | 24                         | -9.2 | 24                        | -12.2 | 43                           | 32.4 | 40               | 29.4 |
| 1500            | 67.5                            | -    | 81                 | -    | 78                    | -    | 15                      | -    | 12                         | -    | 12                        | -     | 38                           | -    | 35               | -    |

IEC 61156-7

