
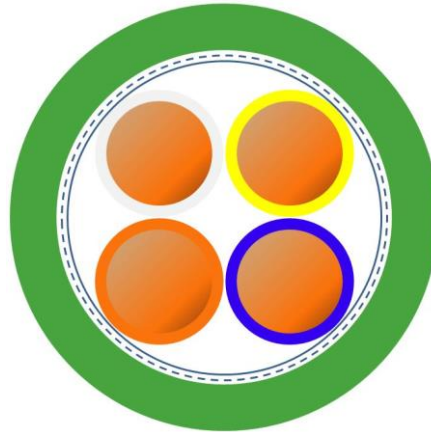


|                                   |   |   |
|-----------------------------------|---|---|
| <b>2170891</b>                    | <b>DATA SHEET</b>                             |  |
| <b>valid from:<br/>01.01.2019</b> | <b>ETHERLINE® PN Cat. 5e Y<br/>2x2x22 AWG</b> |   |

## Application

ETHERLINE® PN Cat. 5e Y 2x2x22 AWG is a CATEGORY 5e high speed data transmission cable for applications in industrial environments. This data cable meets the requirements in accordance to the Standards EIA/TIA-568 TSB-36 and ISO/IEC 11801 „Generic Cabling for Customer Premises“ for CLASS D Links. The high quality screening ensures a high security during data transmission in areas with electromagnetic fields. The cable is designed for static applications in dry and wet rooms.

## Design




|                          |   |
|--------------------------|---|
| Certification            | c(UL)us listing, type CMX 75 °C acc. to UL 444  |
| Conductor                | solid bare copper wire, ca. 0.64 mm conductor Ø (22 AWG)                              |
| Insulation               | PE, core Ø ca. 1.5 mm   |
| Core identification code | white, yellow, blue, orange   |
| Stranding                | star quad   |
| Screen                   | plastic laminated aluminum foil<br>on top:<br>braid of copper wire, coverage ca. 85 % |
| Outer sheath             | PVC, green (similar to RAL 6018),<br>outer Ø ca. 6.3 mm                               |

## Electrical properties at 20°C

|                         |   |
|-------------------------|---|
| Conductor resistance    | max. 118 Ω/km   |
| Insulation resistance   | min. 5 GΩxkm  |
| Mutual capacitance      | ca. 48 nF/km (at 800 Hz)                              |
| Velocity of propagation | ca. 0,66 c  |
| Signal transit time     | nom. 506 ns/ 100 m                                    |
| Peak operating voltage  | 125 V (not for power purposes)                        |
| Test voltage            | conductor/conductor 1000 V<br>conductor/screen 1000 V |

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**Electrical transmission properties at 20°C**

| f<br>[MHz]   | Attenuation<br>[dB/100m]<br>standard | NEXT<br>[dB]<br>standard | EL FEXT<br>[dB]<br>standard | Return Loss<br>[dB]<br>standard |
|--------------|--------------------------------------|--------------------------|-----------------------------|---------------------------------|
| <b>4</b>     | 4,1                                  | 56,3                     | 52                          | 23                              |
| <b>10</b>    | 6,7                                  | 50                       | 43,3                        | 25                              |
| <b>16</b>    | 8,3                                  | 47,2                     | 40                          | 25                              |
| <b>31,25</b> | 11,7                                 | 42,8                     | 34                          | 23,6                            |
| <b>62,5</b>  | 17                                   | 38,4                     | 28,1                        | 21,6                            |
| <b>100</b>   | 22                                   | 35,3                     | 24                          | 20,1                            |

**Mechanical and thermal properties**

|                        |  |
|------------------------|--|
| Minimum bending radius | 7,5 x cable Ø  |
| Temperature range      | at installation: -5° C up to +50° C<br>fixed installation: -40° C up to +70° C                                       |
| Flammability           | acc. to IEC 60332-1-2 and VW-1 acc. to UL 1581   |
| General requirements   | This cable is conform to the EU-Directive 2011/65/EU (RoHS, Restriction of the use of certain hazardous substances). |

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