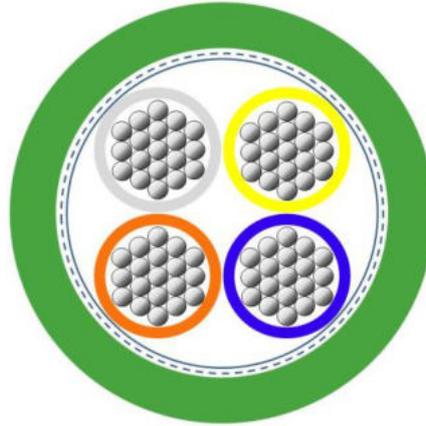


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| valid from: 01.01.2019 | ETHERLINE® TORSION P CAT.5a | |

Application

ETHERLINE® TORSION Cat. 5 is a CATEGORY 5 high speed data cable for industrial applications with torsional stress. The high quality screening ensures high transmission reliability in areas with a high load of electromagnetic capacity. The cable is flame retardant and halogen free.

Design



| | |
|--------------------------|--|
| Certification | UL AWM Style 21161 (80 °C) |
| Conductor | fine-stranded tinned copper wires, ca. 0.75 mm conductor \varnothing |
| Insulation | Foam-Skin PE, approx. 1.5 mm outer \varnothing |
| Core identification code | white, yellow, blue, orange |
| Stranding | star quad (optional with central filler) with non-woven tape |
| Screen | braiding of tinned copper wires, coverage ca. 85 % on top: non-woven tape wrapping |
| Outer sheath | PUR compound, Colour green, outer \varnothing : ca. 6.5 mm |

Electrical properties at 20°C

| | |
|--------------------------|--|
| Loop resistance | max. 120 Ω /km |
| Insulation resistance | min. 500 M Ω xkm |
| Characteristic impedance | 100 Ω \pm 15 Ω (1MHz up to 100 MHz) |
| Signal transit time | <5,3 ns/m |
| Peak operating voltage | 125 V |
| Test voltage | conductor/conductor 700 V conductor/screen 700 V |

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Electrical transmission properties at 20°C

| f [MHz] | Attenuation [dB/100m] | | NEXT [dB] | EL FEXT [dB] | Return Loss [dB] |
|--------------|--------------------------|----------|--------------|-----------------|---------------------|
| | Standard | Standard | Standard | Standard | Standard |
| | D1 | D2 | | | |
| 1 | | | 65,3 | | |
| 4 | 6 | 6,7 | 56,3 | 52 | 23 |
| 10 | 9,8 | 10,8 | 50,3 | 44 | 25 |
| 16 | 12,1 | 13,6 | 47,2 | 39,9 | 25 |
| 31,25 | 17,1 | 19,1 | 42,9 | 34,1 | 23,7 |
| 62,5 | 24,7 | 27,6 | 38,4 | 28,1 | 21,6 |
| 100 | 32 | 35,6 | 35,3 | 24 | 20,1 |

Mechanical and thermal properties

| | |
|------------------------|---|
| Minimum bending radius | 5 x cable Ø |
| Temperature range | -40° C up to +80° C |
| Torsional stress | ca. 1.000.000 cycles at ±180 °/m (no festoon applications) |
| Flammability | flame retardant acc. to IEC 60332-1-2; UL 1581 (horizontal flame test) |
| Halogen free | acc. to VDE 0472-815 |
| 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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