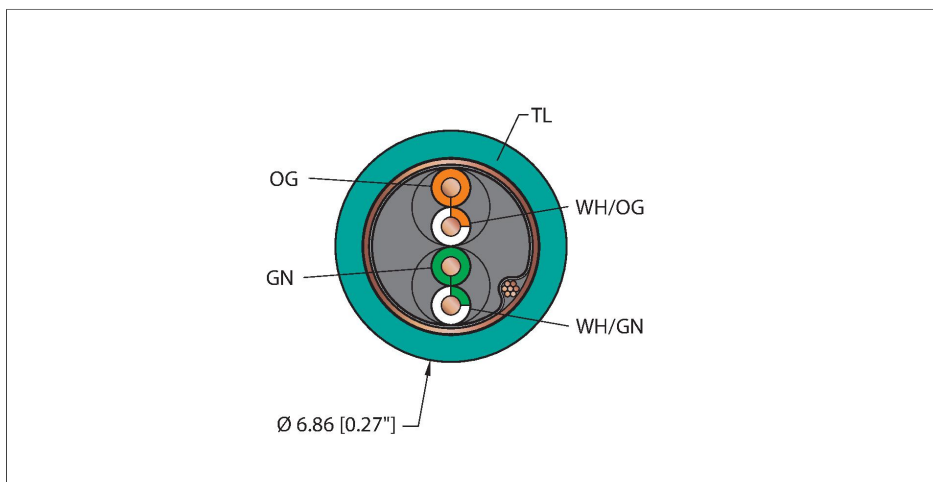


# TEA,TPE,2UTPX24,S-FDB,CM,EN,CAT5E,SLD Industrial Ethernet Cable – Reelfast™ Bulk Cable



## Features



- Unshielded Twisted Pair
- UL AWM 600V
- CM 300V
- Industrial Ethernet Cable
- fieldbus type: Ethernet CAT5E, Teal TPE jacket, shielded, 2UTPX24 AWG
- -40 Cold Bend Rating
- Flame Ratings: UL 1685, UL1061

## Technical data

|                                 |                                          |
|---------------------------------|------------------------------------------|
| Type                            | TEA,TPE,2UTPX24,S-FDB,CM,EN,CAT5E,SLD    |
| ID no.                          | RF51213                                  |
| Cable data                      |                                          |
| Cable Platform                  | Industrial Ethernet Cable                |
| Fieldbus                        | Ethernet CAT5E, 443                      |
| Total number of conductors      | 4                                        |
| Cable diameter                  | Ø 6.86 mm                                |
| Cable jacket                    | TPE, Teal                                |
| Shield                          | Aluminum/polyester (OUT)                 |
| Braid material                  | 38 AWG, TC (Tinned Copper), 80% coverage |
| Cable drain                     | 24 AWG, TC (Tinned Copper)               |
| Conductor material              | TC (tinned copper)                       |
| Conductor colors                | OG, WH/OG, GN, WH/GN                     |
| Description of assembly         | UTP (Unshielded Twisted Pair)            |
| Number of assemblies            | 2                                        |
| Conductor diameter              | 0.046 "                                  |
| Conductor insulation material   | HDPE                                     |
| Cable conductor cross-section   | 2x24 AWG [Similar to 0.25 mm²]           |
| Number of strands x O.D.        | 1x24 AWG                                 |
| Weight                          | 0.126 lbs. /meter                        |
| Electrical properties at +20 °C |                                          |
| Voltage                         | UL AWM 600V<br>CM 300V                   |

## Technical data

|                                           |                                                                                            |
|-------------------------------------------|--------------------------------------------------------------------------------------------|
| Dielectric withstand                      | 2000 V RMS                                                                                 |
| Mutual capacitance                        | 1kHz 5.6 nF/100m                                                                           |
| Voltage rating                            | 600 V                                                                                      |
| DC resistance                             | 26.5 $\Omega$ /1000ft                                                                      |
| DC resistance unbalanced                  | 5 %                                                                                        |
| Coupling attenuation                      | $30 \leq f \leq 100$ MHz 55-20 LOG (f/100) dB<br>MIN, 55 dB min                            |
| Surface transfer impedance                | $1 \leq f \leq 100$ MHz 10 f m $\Omega$ /m                                                 |
| <b>Cable testing note</b>                 | Starting at the reel, the following items are checked. (100-m cable)                       |
| Capactance pair to ground                 | MAX 1kHz 330 pF/100m                                                                       |
| Return loss1                              | $1 \leq f < 10$ MHz 20 + 5 LOG(f) dB min.                                                  |
| Return loss2                              | $10 \leq f < 20$ MHz 25 dB min.                                                            |
| Return loss3                              | $20 \leq f \leq 100$ MHz 25 - 7 LOG(f/20) dB min.                                          |
| Insertion loss                            | $1 \leq f \leq 100$ MHz $1.967 \sqrt{f} + 0.023(f) + 0.050/\sqrt{f}$ dB max.               |
| Near End Cross Talk                       | $1 \leq f \leq 100$ MHz 35.3 - 15 LOG(f/100) dB min                                        |
| Attenuation to Crosstalk Ratio Far        | $1 \leq f \leq 100$ MHz 23.8 - 20 LOG(f/100) dB min.                                       |
| Propagation delay                         | $1 \leq f \leq 100$ MHz 534 + 36/ $\sqrt{f}$ ns max                                        |
| Propagation delay skew                    | $1 \leq f \leq 100$ MHz <25ns                                                              |
| <b>Mechanical and chemical properties</b> |                                                                                            |
| Bending radius (static)                   | $\geq 4 \times \varnothing$                                                                |
| Cold bend rating                          | -40 °C                                                                                     |
| Flex rating 10 x $\varnothing$            | 1 million cycles *                                                                         |
| Flex rating 20 x $\varnothing$            | 10 million cycles*                                                                         |
|                                           | *When properly installed @ 20°C, 50%RH, and a cycle speed of $\leq 0.5$ cycles per second. |
| Ambient temperature range (static)        | -40 °C...+80 °C                                                                            |
| Ambient temperature range (dynamic)       | -40 °C...+80 °C                                                                            |
| Temperature range (installation)          | -20 °C...+80 °C                                                                            |
| <b>Approval</b>                           |                                                                                            |
| UL Approvals                              | UL 444 CM<br>UL 758 AWM 2463                                                               |
| CSA Approvals                             | UL 444 CM                                                                                  |
| Compliances                               | RoHS<br>CE                                                                                 |

Technical data

|      |                                                                                                                                                                                      |
|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Note | - Flex ratings may be reduced if used in extreme temperatures, exposure to certain chemicals, operating above the rated cycle speed, or operating below the rated cable bend radius. |
|      | - We reserve the right to make technical alterations without prior notice.                                                                                                           |