

# Industrial Ethernet Category 5e – 4 Pair Enhanced F/UTP Shielded Twisted Pair Cable



## Applications:

- IEEE 802.3: 1000 BASE-T, 100 BASE-TX, 10 BASE-T, PoE, PoE+
- CDDI, Token Ring, ATM
- Broadband and Baseband Analog Video
- Voice, T1
- Harsh Industrial Environments
- Noisy (EMI) Environments
- ODVA EtherNet/IP™

## Compliances:

- UL Verified to ANSI/TIA 568.2-D Category 5e
- NEC/CEC Type: UL Listed CMX OUTDOOR - CMR
- NEC/CEC Type CMR (UL 1666)
- UL AWM Style 21047 (UL: 75°C, 600 V)
- SUN RES per UL 444
- UL OIL RES I and II
- RoHS II Compliant (EU DIRECTIVE 2011/65/EU)
- MSHA Signaling Cable P-07-KA140025-MSHA

## Features & Benefits:

- Foil shield reduces electromagnetic interference (EMI) for optimal performance
- Third-party verified for guaranteed performance
- TRU-Mark® print legend
- Industrial-grade oil- and sunlight-resistant jacket

## Construction:

### Insulation

- HDPE

### Shield Coverage

- 100% F/UTP

### Color Code

- Pair 1: Blue-White/Blue
- Pair 2: Orange-White/Orange
- Pair 3: Green-White/Green
- Pair 4: Brown-White/Brown

### Rip Cord

- Polyester

### Jacket

- Oil- and Sunlight- Resistant PVC

### Jacket Colors

- Red, Black

## Print Legend:

\*\*\*\* FEET PRYSMIAN \* GCRI405 INDUSTRIAL F/UTP  
CAT 5e RISER 4PR 24AWG CMX OUTDOOR - CMR  
C(UL)US 75C SUN RES VERIFIED (UL) ANSI/TIA-  
568.2-E CAT 5e AWM 21047 75C 600V---FT4 OIL RES  
II P-07-KA140025-MSHA ODVA ETHERNET/IP (TM)  
VEN 1293 ##-## #####



| Catalog Number | Spec Number | Nominal O.D. |       | Cable Weight Mft |    | No. Pairs | Cond. AWG Size | Jacket Thickness |       |
|----------------|-------------|--------------|-------|------------------|----|-----------|----------------|------------------|-------|
|                |             | Inches       | mm    | Lbs              | kg |           |                | Inches           | mm    |
| GCRI405        | 7501        | 0.270        | 6.858 | 34               | 15 | 4         | 24             | 0.032            | 0.813 |

## ELECTRICAL PERFORMANCE

| Frequency MHz | PSACR (dB/100 m) (min) | ACRF (dB/100 m) (min) | Insertion Loss (dB/100 m) (max) | PSNEXT (dB) (min) | NEXT (dB) (min) | PSACRF (dB/100 m) (min) | ACR (dB/100 m) (min) | Return Loss (dB) (min) |
|---------------|------------------------|-----------------------|---------------------------------|-------------------|-----------------|-------------------------|----------------------|------------------------|
| 1             | 60.3                   | 63.8                  | 2.0                             | 62.3              | 65.3            | 60.8                    | 63.3                 | 20.0                   |
| 4             | 48.2                   | 51.7                  | 4.1                             | 53.3              | 56.3            | 48.7                    | 52.2                 | 23.6                   |
| 10            | 40.8                   | 43.8                  | 6.5                             | 47.3              | 50.3            | 40.8                    | 43.8                 | 26.0                   |
| 16            | 36.1                   | 39.7                  | 8.2                             | 44.3              | 47.3            | 36.7                    | 39.0                 | 26.0                   |
| 20            | 33.5                   | 37.7                  | 9.3                             | 42.8              | 45.8            | 34.7                    | 36.5                 | 26.0                   |
| 25            | 30.9                   | 35.8                  | 10.4                            | 41.3              | 44.3            | 32.8                    | 33.9                 | 25.5                   |
| 31.25         | 28.2                   | 33.9                  | 11.7                            | 39.9              | 42.9            | 30.9                    | 31.2                 | 25.0                   |
| 62.5          | 18.4                   | 27.8                  | 17.0                            | 35.4              | 38.4            | 24.8                    | 21.4                 | 23.5                   |
| 100           | 10.3                   | 23.8                  | 22.0                            | 32.3              | 35.3            | 20.8                    | 13.3                 | 22.5                   |
| 155           | 1.4                    | 20.0                  | 28.1                            | 29.4              | 32.4            | 17.0                    | 4.4                  | 18.8                   |
| 200           | —                      | 17.8                  | 32.4                            | 27.8              | 30.8            | 14.8                    | —                    | 18.0                   |
| 250           | —                      | 15.8                  | 36.9                            | 26.3              | 29.3            | 12.8                    | —                    | 17.3                   |
| 330           | —                      | 14.3                  | 41.0                            | 25.1              | 28.1            | 11.3                    | —                    | 16.6                   |
| 350           | —                      | 12.9                  | 44.9                            | 24.1              | 27.1            | 9.9                     | —                    | 16.3                   |

Values over 200 Mhz are for informational purposes.

## ELECTRICAL CHARACTERISTICS

|                                                   |                                 |
|---------------------------------------------------|---------------------------------|
| Maximum DC Resistance                             | 8.9 Ohms/100 m (328 ft) @ 20 °C |
| DC Resistance Unbalanced Individual Pair          | 3%                              |
| Maximum Mutual Capacitance                        | 17 pF/ft @ 1 KHz                |
| Maximum Delay Skew                                | 45 ns/100 m                     |
| Nom. Velocity of Propagation                      | 70% Speed of Light              |
| Characteristic Impedance Frequency (f): 1-200 MHz | Ohms: 100 ± 15                  |

## MECHANICAL CHARACTERISTICS

|                                 |                |
|---------------------------------|----------------|
| Maximum Pulling Force           | 25 lbs.        |
| Minimum Bend Radius             | 1.0"           |
| Installation Temperature Rating | -20°C to +75°C |
| Operation Temperature Rating    | -40°C to +75°C |

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