

ALPHA WIRE
CUSTOMER PRODUCT SPECIFICATION

Part Number: 17-1099RD
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Issue: 2
Issue Date: 4/23/2018
Effective Date: 4/24/2018

A. Construction

Diameters (In)

- 1) Component 1 1 X 1 CABLE 76022
- (1) Component 1 X 4 PAIR
- a) Conductor 24 (7/32) AWG BC 0.024
- b) Insulation 0.014" Wall, Nom. Polypropylene (PP) 0.051
- (1) Color(s)
- | Pair | Color | Pair | Color | Pair | Color |
|------|-----------------------|------|---------------------|------|-------|
| 1 | BLUE - WHITE/BLUE | 3 | GREEN - WHITE/GREEN | | |
| 2 | ORANGE - WHITE/ORANGE | 4 | BROWN - WHITE/BROWN | | |
- c) Pair 2/Cond Cabled Together, Non-bonded
- (1) Lay Length: Various Lay
- (2) Cabling 4 PAIR Cabled
- (1) Twists: 3.0 Twists/foot (min)
- (2) Core Wrap: Clear Mylar Tape, 25% Overlap, Min.
- (3) Shield: A/P/A Tape, 25% Overlap, Min.
- a) Drain Wire 26 (SOLID) AWG TC
- b) Braid TC, 70% Coverage, Min.
- (4) Jacket 0.035" Wall, Nom., TPE 0.325 (0.335 Max.)
- a) Color(s) BLACK
- b) Ripcord Nylon
- c) Print ALPHA WIRE-* P/N 76022 4PR 24 AWG
XTRA-GUARD(R) INDUSTRIAL ETHERNET (UL) C(UL) TYPE
CMR 75C FT4 ANSI/TIA-568-C.2 CAT5E VERIFIED
CE ROHS (SEQUENTIAL FOOTAGE MARKING)
* = Factory Code
- 2) Component 2 6 X 1 COND
- a) Conductor 18 (41/34) AWG Tinned Copper 0.047
- b) Insulation 0.016" Wall, Nom. PVC 0.079
- (1) Color(s)

Cond	Color	Cond	Color	Cond	Color
1	BLACK	3	WHITE	5	YELLOW
2	RED	4	GRAY	6	VIOLET

- 3) Cable Assembly 7 Components Cabled
- a) Twists: 1.7 Twists/foot (min)
- b) Orientation: Components to be arranged from INSIDE LAYER to OUTSIDE LAYER
- c) Core Wrap Clear Mylar Tape, 25% Overlap, Min.
- 4) Shield Tinned Copper BRAID Shield, 80% Coverage, Min.
- a) Drain Wire 22 (7/30) AWG Tinned Copper
- 5) Jacket 0.044" Wall, Nom., TPE-C 0.608+/- 0.020
- a) Color(s) BLACK
- b) Jacket Separator Tissue Tape, 25% Overlap, Min.
- c) Print MILLER ELECTRIC MFG. CO.,
- APPLETON, WI USA - 279665A
- d) Print Color WHITE

B. Applicable Specifications

C. Environmental Compliance

- 1) CE: EU Directive 2011/65/EU(RoHS2):

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This product complies with European Directive 2011/65/EU (RoHS Directive) of the European Parliament and of the Council of 8 June 2011 and the amending Directive 2015/863/EU of 4 June 2015. No Exemptions are required for RoHS Compliance on this item. Consult Alpha Wire's web site for [RoHS C of C](#).

2) REACH Regulation (EC 1907/2006):

This product does not contain Substances of Very High Concern (SVHC) listed on the European Union's REACH candidate list in excess of 0.1% mass of the item. For up-to-date information, please see [Alpha's REACH SVHC Declaration](#).

D. Physical & Mechanical Properties

- | | |
|------------------------|--------------------|
| 1) Temperature Range | -50 to 80°C |
| 2) Bend Radius | 10X Cable Diameter |
| 3) Pull Tension | 96 Lbs, Maximum |
| 4) Sunlight Resistance | Yes |

E. Electrical Properties

- | | |
|-----------------------------|--|
| 1) Voltage Rating | 300 V _{RMS} |
| 2) Component 1 | |
| a) Voltage Rating | 300 V _{RMS} |
| b) Characteristic Impedance | 100 Ω +/- 15 |
| c) Mutual Capacitance | 15 pF/ft |
| d) Velocity of Propagation | 69 % Nom. |
| e) Conductor DCR | 11 Ω/100m Max |
| f) Skew | 45 ns/100m Max |
| g) Pair to Ground Unbalance | 330 pF/100m Max |
| h) DC Unbalance of a Pair | 5% Max |
| i) Insertion Loss | 2.5 (Max dB/100m) @ 1 MHz
4.9 (Max dB/100m) @ 4 MHz
6.9 (Max dB/100m) @ 8 MHz
7.8 (Max dB/100m) @ 10 MHz
9.9 (Max dB/100m) @ 16 MHz
11.1 (Max dB/100m) @ 20 MHz
12.5 (Max dB/100m) @ 25 MHz
14.1 (Max dB/100m) @ 31.25 MHz
20.4 (Max dB/100m) @ 62.5 MHz
26.4 (Max dB/100m) @ 100 MHz |
| 3) Component 2 | |
| a) Capacitance | 52 pF/ft @1 kHz, Nominal Conductor to Conductor |
| b) Ground Capacitance | 94 pF/ft @1 kHz, Nominal |
| c) Inductance | 0.18 μH/ft, Nominal |
| d) Conductor DCR | 7 Ω/1000ft @20°C, Nominal |
| 4) OA Shield DCR | 1.52 Ω/1000ft @20°C, Nominal |

F. Other

- | | |
|---|-------------------------------------|
| 1) Packaging | Flange x Traverse x Barrel (inches) |
| a) Bulk(Made-to-order) | |
| 2) Notes: | |
| a) Component1 verified to TIA-568-C.2 Cat5e but not guaranteed after this composite cable completed. | |
| b) Jacket printing: 1/4" or wider white stripe interrupted with "MILLER ELECTRIC MFG. CO., - APPLETON, WI USA - DIGITAL". Print is every 12". | |

This Design is custom, Made-To-Order & once accepted, the order is NON-CANCELLABLE & NON-RETURNABLE.

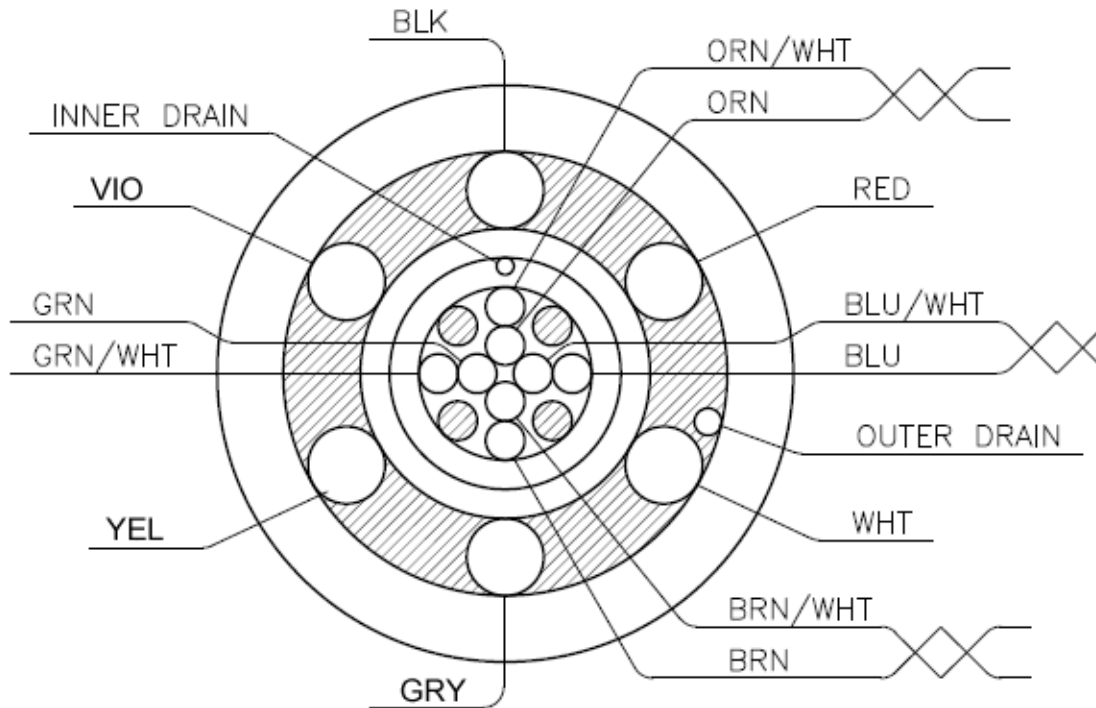
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Accepted By:	Date:
Company:	Title:



COLOR ROTATION

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