

## Customer Specification

### PART NO. 25170/20

### Construction

|                   |        |      |            |      |              | Diameters (In)  |                    |
|-------------------|--------|------|------------|------|--------------|---|--------------------|
| 1) Component 1    |        |      |            |      |              | 20 X 1 COND   |                    |
| a) Conductor      |        |      |            |      |              | 18 (16/30) AWG Tinned Copper  | 0.047              |
| b) Insulation     |        |      |            |      |              | 0.016" Wall, Nom. PVC   | 0.079              |
| (1) Color Code    |        |      |            |      |              | Alpha Wire Color Code D   |                    |
| Cond              | Color  | Cond | Color      | Cond | Color        |   |                    |
| 1                 | BLACK  | 8    | YELLOW     | 15   | RED/BLACK    |   |                    |
| 2                 | RED    | 9    | VIOLET     | 16   | WHITE/BLACK  |   |                    |
| 3                 | WHITE  | 10   | SLATE      | 17   | WHITE/RED    |   |                    |
| 4                 | GREEN  | 11   | PINK       | 18   | WHITE/GREEN  |   |                    |
| 5                 | ORANGE | 12   | TAN        | 19   | WHITE/YELLOW |   |                    |
| 6                 | BLUE   | 13   | RED/GREEN  | 20   | WHITE/BLACK  |   |                    |
| 7                 | BROWN  | 14   | RED/YELLOW |      |              |   |                    |
| 2) Cable Assembly |        |      |            |      |              | 20 Components Cabled  |                    |
| a) Twists:        |        |      |            |      |              | 2.0 Twists/foot (min)   |                    |
| b) Orientation:   |        |      |            |      |              | Components to be arranged from INSIDE LAYER to OUTSIDE LAYER  |                    |
| c) Core Wrap      |        |      |            |      |              | Nonwoven Polyester Tape, 20% Overlap, Min.  |                    |
| 3) Shield:        |        |      |            |      |              | A/P/A Tape, 20% Overlap, Min.   |                    |
| a) Drain Wire     |        |      |            |      |              | 18 (16/30) AWG Tinned Copper  |                    |
| b) Braid          |        |      |            |      |              | Tinned Copper, 70% Coverage, Nom.   |                    |
| 4) Jacket         |        |      |            |      |              | 0.032" Wall, Nom., Polyurethane (TPU)   | 0.512 (0.532 Max.) |
| a) Color(s)       |        |      |            |      |              | Slate, Black, Yellow, Orange, Blue, Green, Red, Sand Beige, White   |                    |
| b) Ripcord        |        |      |            |      |              | 1 End 810 Denier Nylon  |                    |
| c) Print          |        |      |            |      |              | ALPHA WIRE-* P/N 25170/20<br>XTRAGUARD(R) 2 RU AWM 20668 VW-1 OR CRU<br>AWM I/II A/B 90C 300 VOLTS FT1 CE<br>ROHS (SEQ FOOTAGE)<br>* = Factory Code |                    |

### Applicable Specifications

|                      |                                     |                              |
|----------------------|-------------------------------------|------------------------------|
| 1) UL                |                                     |                              |
| a) Component 1       | AWM/STYLE 1569                      | 105°C / 300 V <sub>RMS</sub> |
| b) Overall           | AWM/STYLE 20668                     | 90°C / 300 V <sub>RMS</sub>  |
|                      | VW-1                                |                              |
| 2) CSA International | C(RU) AWM I/II A/B                  | 90°C / 300 V <sub>RMS</sub>  |
|                      | FT1                                 |                              |
| 3) CE:               | EU Low Voltage Directive 2014/35/EU |                              |

## Environmental

|  |   |
|--|---|
| 1) CE: EU Directive 2011/65/EU(RoHS2), EU Directive 2015/863/EU (RoHS3): |   |
|  | 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. |
| 2) California Proposition 65:  | This product may contain substances known to the State of California to cause Cancer or Reproductive Harm, but is exempt from labeling based on the Consent Judgement. See the Alpha Wire website for more information.                                     |

## Properties

| <b>Physical &amp; Mechanical Properties</b> |   |
|---|---|
| 1) Temperature Range                        | -30 to 90°C                                     |
| 2) Bend Radius                              | 10X Cable Diameter                              |
| 3) Pull Tension                             | 273 Lbs, Maximum                                |
| 4) Sunlight Resistance                      | Yes   |
| <b>Electrical Properties</b>                |   |
| (For Engineering purposes only)             |   |
| 1) Voltage Rating                           | 300 V <sub>RMS</sub>                            |
| 2) Capacitance                              | 45 pF/ft @1 kHz, Nominal Conductor to Conductor |
| 3) Ground Capacitance                       | 81 pF/ft @1 kHz, Nominal                        |
| 4) Inductance                               | 0.18 μH/ft, Nominal                             |
| 5) Conductor DCR                            | 7.1 Ω/1000ft @20°C, Nominal                     |
| 6) OA Shield DCR                            | 1.51 Ω/1000ft @20°C, Nominal                    |

## Other

|                        |                                     |
|------------------------|-------------------------------------|
| <b>Packaging</b>       | Flange x Traverse x Barrel (inches) |
| a) Bulk(Made-to-order) |                                     |

[www.alphawire.com](http://www.alphawire.com)

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# EU/China ROHS CERTIFICATE OF COMPLIANCE

To Whom It May Concern:

Alpha Wire Part Number: 25170/20

25170/20, RoHS-Compliant Commencing With 01/08/2005 Production

Note: all colors and put-ups

This document certifies that the Alpha part number cited above is manufactured in accordance with Directive 2011/65/EU of the European Union (RoHS 2), with regards to restrictions of the use of certain hazardous substances used in the manufacture of electrical and electronic equipment. This document also certifies compliance with the list of restricted substances to 10 items (commonly known as RoHS 3). The reader is referred to these Directives for the specific definitions and requirements. **Compliance on this item.** Additionally, Alpha certifies that the listed part number is in compliance with China RoHS "Marking for Control" requirements.

## Substance

Lead  
Mercury  
Cadmium  
Hexavalent Chromium  
Polybrominated Biphenyls (PBB)  
Polybrominated Diphenyl Ethers (PBDE),  
Including Deca-BDE  
Bis(2-ethylhexyl) phthalate (DEHP)  
Butyl benzyl phthalate (BBP)  
Dibutyl phthalate (DBP)  
Diisobutyl phthalate (DIBP)

## Maximum Control Value

0.1% by weight (1000 ppm)  
0.1% by weight (1000 ppm)  
0.01% by weight (100 ppm)  
0.1% by weight (1000 ppm)  
0.1% by weight (1000 ppm)  
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0.1% by weight (1000 ppm)

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Dave Watson, Director of Engineering & QA 31/03/2025

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