

Customer Specification

PART NO. MP12105LW

Construction

| | | | | | | | | |
|-------------------|------------|------|------------|------|------------|---|--|----------------|
| | | | | | | Diameters (In) | | |
| 1) Component 1 | | | | | | 5 X 1 COND | | |
| a) Conductor | | | | | | 12 (65/30) AWG Bare Copper | | 0.093 |
| b) Insulation | | | | | | 0.016" Wall, Nom. PVC/ 0.005" Wall NYLON | | 0.135 |
| (1) Print | | | | | | ALPHANUMERIC NUMBERS - 1-ONE ALTERNATING AND INVERTED | | |
| (2) Color Code | | | | | | Alpha Wire Color Code LX | | |
| Cond | Color | Cond | Color | Cond | Color | | | |
| 1 | GREEN/YEL | 3 | DK. BLUE#2 | 5 | DK. BLUE#4 | | | |
| 2 | DK. BLUE#1 | 4 | DK. BLUE#3 | | | | | |
| 2) Cable Assembly | | | | | | 5 Components Cabled | | |
| a) Twists: | | | | | | 2.4 Twists/foot (min) | | |
| b) Orientation: | | | | | | Components to be arranged from OUTSIDE LAYER to INSIDE LAYER | | |
| c) Core Wrap | | | | | | REMAI Tape, 25% Overlap, Min. | | |
| 3) Jacket | | | | | | 0.065" Wall, Nom.,TPE | | 0.511+/- 0.022 |
| a) Color(s) | | | | | | Yellow, Orange, Black | | |
| b) Print | | | | | | ALPHA WIRE-* P/N MP12105LW 5C 12 AWG (3.29mm2) THWN-2 SERIES P (UL) TYPE TC-ER 90C 600V OIL RES I/II SUN RES OR TYPE PLTC 90C OR C(UL) CIC CONTROL/TC 90C PVC/NYLON INS FT4 12 AWG OR CRU AWM I/II A/B 90C 600V FT4 CE ROHS (DATE CODE) (SEQ FOOTAGE) * = Factory Code [Note: Product may have c(UL) or CSA markings depending upon plant of manufacture.] | | |

Applicable Specifications

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| Physical & Mechanical Properties | |
|----------------------------------|---|
| 1) Temperature Range | -30 to 90°C(static), -5 to 90°C (dynamic) |
| 2) Bend Radius | 8X Cable Diameter(static), 8X Cable Diameter(dynamic) |
| 3) Pull Tension | 255 Lbs, Maximum |
| 4) Sunlight Resistance | Yes |
| Electrical Properties | (For Engineering purposes only) |
| 1) Voltage Rating | 600 V _{RMS} |
| 2) Capacitance | 33 pF/ft @1 kHz, Nominal Conductor to Conductor |
| 3) Inductance | 0.16 µH/ft, Nominal |
| 4) Conductor DCR | 1.65 Ω/1000ft @20°C, Nominal |
| | |

Other

| Packaging | Flange x Traverse x Barrel (inches) |
|--|-------------------------------------|
| a) Bulk(Made-to-order) | |
| Notes: | |
| a) Suitable for intermittent or light duty flexing where cycle count will be less than 1,500,000 cycles. | |
| | |

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EU/UK/China ROHS CERTIFICATE OF COMPLIANCE

To Whom It May Concern:

Alpha Wire Part Number: MP12105LW

MP12105LW, RoHS-Compliant Commencing With 8/1/2005 Production

Note: all colors and put-ups

This document certifies that the Alpha part number cited above, including all packaging materials, is manufactured in accordance with Directive 2011/65/EU of the European Parliament, better known as the RoHS Directive (commonly known as RoHS 2), with regards to restrictions of the use of certain hazardous substances used in the manufacture of electrical and electronic equipment. This certification extends to amending Directive 2015/863/EU which expanded the list of restricted substances to 10 items (commonly known as RoHS 3). This product also complies with UK - RoHS. The reader is referred to these Directives for the specific definitions and extents of the Directives. **No Exemptions are required for RoHS Compliance on this item.** Additionally, Alpha certifies that the listed part number is in compliance with China RoHS "Marking for Control of Pollution by Electronic Information Products" standard SJ/T 11364-2014. This product is also in compliance with China RoHS 2 per GB/T 26572-2011.

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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Authorized Signatory for the Alpha Wire:

Dave Watson, Director of Engineering 8/14/2025

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