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| 1) CONSTRUCTION: | | NOM. DIA. |
| CONDUCTOR: | 26 AWG 7/34 STRANDED TINNED COPPER | .019" |
| INSULATION: | HIGH DENSITY POLYETHYLENE, .009" NOM. WALL THICKNESS | .036" |
| PAIRS: | COLOR CODED SINGLES TWISTED INTO PAIRS | .072" |
| CABLE: | (4) TWISTED PAIRS TWISTED TOGETHER WITH A CENTRAL SPLINE AND WRAPPED WITH A FOAM POLYPROPYLENE TAPE TO FORM A CABLE CORE. | .176" |
| SHIELDS: | AN OVERALL SHIELD OF 38 AWG TINNED COPPER BRAID (80% MINIMUM COVERAGE), SHALL BE APPLIED OVER THE CABLE CORE. A SECOND SHIELD OF ALUMINIZED POLYESTER FOIL (FOIL IN, 100% COVERAGE) SHALL BE APPLIED OVER THE BRAID. | .195" |
| JACKET: | ZHFR POLYURETHANE, (COLOR, PER CHART 1) , .037" NOM. WALL THICKNESS | .269" ± .010" (BY CALIPER) |
| | OVERALL CABLE DIAMETER | |

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| 2) PHYSICAL PROPERTIES: | |
| TEMPERATURE RATING, MAX. | 75°C |
| TEMPERATURE RATING, MIN. | -40°C |
| WT./M', NOM., NET. | 37.3 LBS. |
| FLEX LIFE* | 1 MILLION CYCLE TEST (10X CABLE O.D., MINIMUM RADIUS) 10 MILLION CYCLE TEST (20X CABLE O.D., MINIMUM RADIUS) |
| TORSION TEST* | |
| (1 LB LOAD, 360°, 71 CYCLES/MIN, @ 20°C) | 3 MILLION CYCLE TEST |
| JACKET SMOKE GENERATION PER ASTM E662, NOM. | Ds = 251 (FLAMING, @ 4 MINUTES) Ds = 16 (NON-FLAMING, @ 4 MINUTES) |
| JACKET OIL RESISTANCE (IRM 902 OIL, 7 DAYS @ 100°C) | |
| TENSILE STRENGTH RETENTION, NOM. | 100% |
| ELONGATION RETENTION, NOM. | 80% |

CHART 1:

| QUABBIN P/N | JACKET COLOR |
|-------------|--------------|
| 5123 | BLACK |
| 5124 | BLUE |
| 5125 | TEAL |
| 5126 | RED |
| 5127 | YELLOW |

*BASED ON TESTING OF SIMILAR CABLES

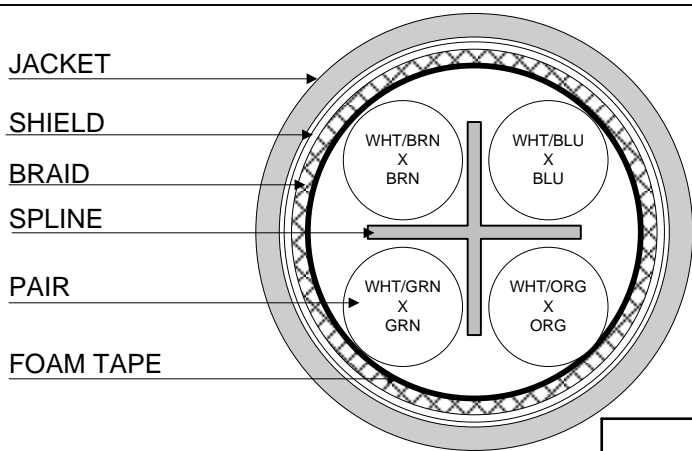
- 3) ELECTRICAL CHARACTERISTICS:
SEE PAGE 2
- 4) AGENCY APPROVALS:
NEC (ETL) TYPE CMX
CEC C(ETL) TYPE CMX
EU CE MARK: MEETS EU DIRECTIVE 2011/65/EU (RoHS II)

5) APPLICATION:
PASSES VW-1.

6) PRINT: (WHITE INK ON BLACK JACKET, ALL OTHERS BLACK INK)
QUABBIN DATAMAX EXTREME HIGH FLEX ZERO HALOGEN INDUSTRIAL ETHERNET/IP PATCH CORD CAT 6a SF/UTP P/N **(P/N PER CHART 1)** -- C(ETL)US TYPE CMX OIL RES I 26 AWG 75C -- CE RoHS -- **(LOT DESIGNATOR) (SEQUENTIAL FOOTAGE)**

- 7) COLOR CODE:
- 1. BLUE X WHITE/BLUE
- 2. ORANGE X WHITE/ORANGE
- 3. GREEN X WHITE/GREEN
- 4. BROWN X WHITE/BROWN

8) PACKAGING:
TO BE PACKAGED AS PER QWC'S STANDARD PACKAGING



CUSTOMER APPROVAL:

DATE:

| | | |
|--|--------------------------|---------|
| Created 10/29/18 | DRAWN: SGH 07/16/21 | |
| REV. 03 | CHECKED: ZRS 08/05/21 | |
| TITLE 4PR SF/UTP INDUSTRIAL HIGH FLEX ETHERNET/IP PATCH CORD – CATEGORY 6/6a | | |
| DRAWING# | | QWC0111 |
| | | 1 of 2 |

3) ELECTRICAL CHARACTERISTICS:

POE COMPLIANT TO 70 METERS WHEN INSTALLED PER RECOMMENDATIONS IN TIA TSB-184
 CABLE WILL MEET CAT 6a CHANNEL REQUIREMENTS TO 70 METER LENGTH
 CAPACITANCE, MUTUAL, NOM. 13.5 PF/FT. AT 1 MHz
 DIELECTRIC WITHSTANDING, MIN. 1500V RMS
 VOLTAGE RATING, MAX. 300V
 D.C. RESISTANCE, MAX. 42.6 Ω/1,000'

NOTE: TESTING FOR THE FOLLOWING IS CONDUCTED OFF THE REEL. (FOR 100m OF CABLE)

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| IMPEDANCE, NOM. | 100 ± 15 Ω 1 - 100 MHz 100 ± 20 Ω 100 - 500 MHz | |
| RETURN LOSS | 1 ≤ f < 10 MHz 10 ≤ f < 20 MHz 20 ≤ f ≤ 100 MHz 100 < f ≤ 250 MHz | 20 + 6 LOG(f) dB MIN* 26 dB MIN* 26 - 5 LOG(f/20) dB MIN* 25 - 8.6 LOG(f/20) dB MIN |
| PS NEXT | 1 ≤ f ≤ 500 MHz | 42.3 - 15 LOG (f/100) dB MIN |
| NEXT | 1 ≤ f ≤ 500 MHz | 44.3 - 15 LOG (f/100) dB MIN |
| PS ACRF | 1 ≤ f ≤ 500 MHz | 24.8 - 20 LOG(f/100) dB MIN |
| ACRF | 1 ≤ f ≤ 500 MHz | 27.8 - 20 LOG(f/100) dB MIN |
| INSERTION LOSS | 1 ≤ f ≤ 500 MHz | 1.5[1.82 √(f) + 0.0091(f) + 0.25/√(f)] dB MAX |
| DELAY | 4 ≤ f ≤ 500 MHz | 534 + 36/√(f) ns MAX** |
| DELAY SKEW | 1 ≤ f ≤ 500 MHz | <45 ns |
| PS ANEXT LOSS (6 AROUND 1) | 1 ≤ f ≤ 500 MHz | 62.5 - 15 LOG(f/100) dB 50 - 500 MHz 67 dB 1 - 50 MHz |
| PS AFEXT (6 AROUND 1) | 1 ≤ f ≤ 500 MHz | 38.2 - 20 LOG(f/100) dB |
| COUPLING ATTENUATION TESTED PER IEC 62153-4-9 | 30 ≤ f ≤ 250 MHz | 100 - 20 LOG(f) (MAX 60 dB) E3 * Segregation class d acc. EN 50174-2 |
| VELOCITY OF PROPAGATION | 68% | |

*PER ODVA VOLUME 2 ETHERNET/IP
 **PER IEC 61156-6

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| | | 2 of 2 |