

1) CONSTRUCTION:		NOM. DIA.
CONDUCTOR:	26 AWG 7/34 STRANDED TINNED COPPER	.019"
INSULATION:	HIGH DENSITY POLYETHYLENE, .009" NOM. WALL THICKNESS	.037"
PAIRS:	COLOR CODED SINGLES TWISTED INTO PAIRS	.074"
CABLE:	(4) TWISTED PAIRS TWISTED TOGETHER AND WRAPPED WITH A FOAM POLYPROPYLENE TAPE TO FORM A CABLE CORE.	.143"
SHIELDS:	AN OVERALL SHIELD OF 38 AWG TINNED COPPER BRAID (75% 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.	.174"
JACKET:	ZHFR POLYURETHANE, <b>(COLOR, PER CHART 1)</b> , .035" NOM. WALL THICKNESS (PRESSURE)	
	OVERALL CABLE DIAMETER	.245" ± .005" (BY CALIPER)

2) PHYSICAL PROPERTIES:	
TEMPERATURE RATING, MAX.	75°C
TEMPERATURE RATING, MIN.	-40°C
WT./M', NOM., NET.	32.6 LBS.
BEND RADIUS, MIN. (STATIC, 1 BEND IN ASSEMBLY)	1"
FLEX LIFE (126 CYCLES/MIN. @ 20°C)	1 MILLION CYCLE TEST (10X CABLE O.D., MINIMUM RADIUS)
TORSION TEST (1 LB LOAD, 360°, 71 CYCLES/MIN, @ 20°C)	10 MILLION CYCLE TEST (20X CABLE O.D., MINIMUM RADIUS)
JACKET SMOKE GENERATION PER ASTM E662, NOM.	3 MILLION CYCLE TEST 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:

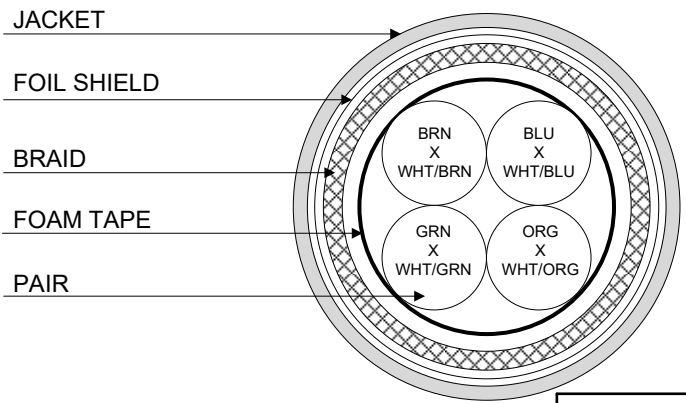
QUABBIN P/N	JACKET COLOR
5075	BLACK
5076	BLUE
5077	TEAL
5078	RED
5079	YELLOW

- 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 5e 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 12/28/10	DRAWN: SGH 08/19/22	
REV. 07	CHECKED: ZRS 08/19/22	
TITLE 4PR. ScTP HIGH FLEX INDUSTRIAL ETHERNET/IP PATCH CORD -- CAT 5e		
DRAWING#	QWC0011	1 of 2

## 3) ELECTRICAL CHARACTERISTICS:

POE COMPLIANT TO 68 METERS WHEN INSTALLED PER RECOMMENDATIONS IN TIA TSB-184	
CABLE WILL MEET CAT 5e CHANNEL REQUIREMENTS TO 68 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 $\Omega$ /1,000'

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

IMPEDANCE	100 $\pm$ 15 $\Omega$	1 – 100 MHz
IMPEDANCE, SMOOTHED	100 $\pm$ 10 $\Omega$ TYPICAL	5 – 100 MHz
RETURN LOSS	1 $\leq f <$ 10 MHz	20 + 6 LOG( $f$ ) dB MIN*
	10 $\leq f <$ 20 MHz	26 dB MIN*
	20 $\leq f \leq$ 100 MHz	26 – 5 LOG( $f/20$ ) dB MIN*
NEXT	1 $\leq f \leq$ 100 MHz	35.3 – 15 LOG( $f/100$ ) dB MIN
PSNEXT	1 $\leq f \leq$ 100 MHz	32.3 – 15 LOG( $f/100$ ) dB MIN
ACRF	1 $\leq f \leq$ 100 MHz	23.8 – 20 LOG( $f/100$ ) dB MIN
PSACRF	1 $\leq f \leq$ 100 MHz	20.8 – 20 LOG( $f/100$ ) dB MIN
INSERTION LOSS	1 $\leq f \leq$ 100 MHz	1.5[1.967 $\sqrt{f}$ + 0.023( $f$ ) + 0.050/ $\sqrt{f}$ ] dB MAX
DELAY	1 $\leq f \leq$ 100 MHz	534 + 36/ $\sqrt{f}$ ns MAX
DELAY SKEW	1 $\leq f \leq$ 100 MHz	<25 ns
COUPLING ATTENUATION PER IEC 62153-4-9	30 $\leq f \leq$ 100 MHz	50 dB MINIMUM
VELOCITY OF PROPAGATION	68%	

\*PER ODVA VOLUME 2 ETHERNET/IP

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CUSTOMER APPROVAL:

DATE: