

1) CONSTRUCTION:

CONDUCTOR:	26 AWG 7/34 STRANDED TINNED COPPER	NOM. DIA.	.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. AN ALUMINIZED POLYESTER FOIL SHIELD (FOIL IN, 100% COVERAGE) SHALL BE APPLIED OVER THE BRAID SHIELD.		.195"
JACKET:	THERMOPLASTIC ELASTOMER, (COLOR, PER CHART 1), .040" NOM. WALL THICKNESS (PRESSURE)	OVERALL CABLE DIAMETER	.275" NOM. (± .010") (BY CALIPER)

2) PHYSICAL PROPERTIES:

TEMPERATURE RATING, MAX.	75°C
TEMPERATURE RATING, MIN.	-40°C (MANUFACTURER'S RECOMMENDED)
WT./M', NOM., NET.	40.2 LBS.
JACKET IS WELD SPATTER RESISTANT	
JACKET IS SUNLIGHT RESISTANT	
FLEX LIFE	
(126 CYCLES/MIN, @ 20°C)	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 CUTTING/MACHINING OIL RESISTANCE (PER QUABBIN TEST REPORT #TR 08-0001)	
(6 MONTHS @ 20°C)	
TENSILE STRENGTH RETENTION, NOM.	80%
ELONGATION RETENTION, NOM.	100%

CHART 1:

QUABBIN P/N	JACKET COLOR
5026	TEAL
5047	GRAY
5048	BLACK

3) ELECTRICAL CHARACTERISTICS:
SEE PAGE 2

4) AGENCY APPROVALS:
NEC (UL) TYPE CMX OUTDOOR – CM
CEC C(UL) TYPE CMX OUTDOOR – CM
EU CE MARK: MEETS EU DIRECTIVE 2011/65/EU (RoHS II)

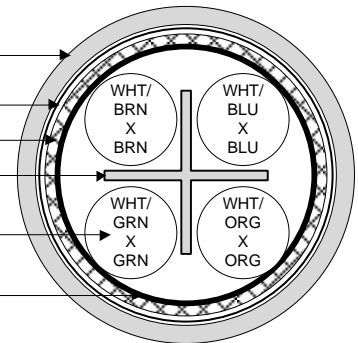
5) APPLICATION:
SHIELDED FLEXIBLE PATCH/JUMPER CABLE TO SUPPORT SCREENED 568.2-D CATEGORY 6 AND 6a APPLICATIONS.

6) PRINT:
QUABBIN DATAMAX EXTREME HIGH FLEX INDUSTRIAL ETHERNET/IP PATCH CORD CAT 6/6a SF/UTP P/N (**QWC P/N PER CHART 1**) -- C(UL)US TYPE CMX OUTDOOR - CM 4PR 26 AWG 75C SUN RES -- 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

JACKET
SHIELD
BRAID
SPLINE
PAIR
FOAM TAPE



Created 10/27/20	DRAWN: SGH 06/06/22	
REV. 03	CHECKED: ZRS 06/06/22	
TITLE 4PR. SF/UTP HIGH FLEX INDUSTRIAL ETHERNET/IP PATCH CORD -- CATEGORY 6/6a		
DRAWING#	QWC0054	1 of 2

CUSTOMER APPROVAL: _____ DATE: _____

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)

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 ≤ 500 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 ≤ 500 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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