

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:	(2) TWISTED PAIRS TWISTED TOGETHER AND WRAPPED WITH A FOAM POLYOLEFIN TAPE (100% COVERAGE) TO FORM A CABLE CORE.	.120"
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.	.142"
JACKET:	ZHFR POLYURETHANE, <b>(COLOR, PER CHART 1)</b> , .046" NOM. WALL THICKNESS (PRESSURE)	OVERALL CABLE DIAMETER .233" ± .010"

2) PHYSICAL PROPERTIES:	
TEMPERATURE RATING, MAX.	75°C
TEMPERATURE RATING, MIN.	-40°C (MANUFACTURER'S RECOMMENDED)
TEMPERATURE RATING, MIN.	-20°C (PER UL 444 COLD BEND)
WT./M', NOM., NET.	29.4 LBS.
FLEX LIFE	1 MILLION CYCLE TEST (10X CABLE O.D., MINIMUM RADIUS) 10 MILLION CYCLE TEST (20X CABLE O.D., MINIMUM RADIUS)
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
5080	BLACK
5081	BLUE
5082	TEAL

3) ELECTRICAL CHARACTERISTICS:  
SEE PAGE 2

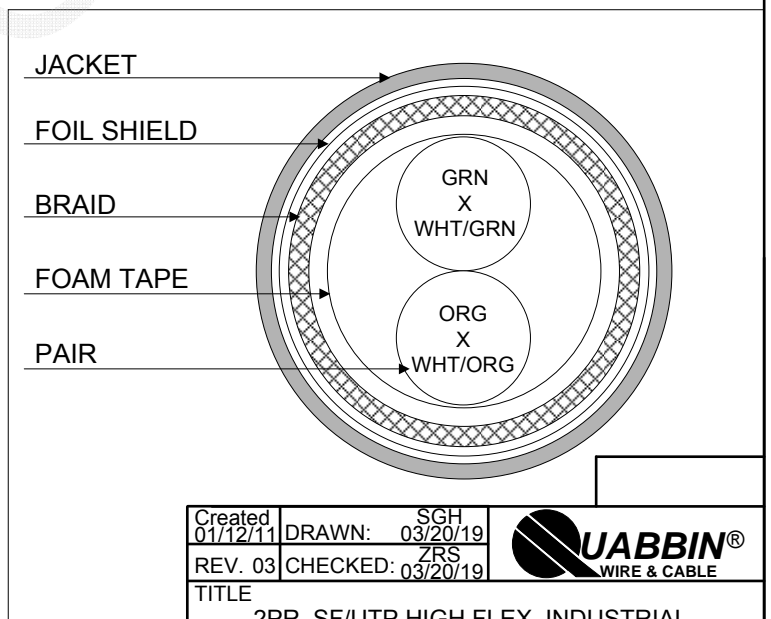
4) AGENCY APPROVALS:  
NEC (ETL) TYPE CMX  
EU CE MARK: MEETS EU DIRECTIVE 2011/65/EU (RoHS II)

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 2 PR 26 AWG 75C -- CE RoHS -- **(LOT DESIGNATOR) (SEQUENTIAL FOOTAGE)**

7) COLOR CODE:  
1. GREEN X WHITE/GREEN  
2. ORANGE X WHITE/ORANGE

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



CUSTOMER APPROVAL:

DATE:

Created 01/12/11	DRAWN: SGH 03/20/19	
REV. 03	CHECKED: ZRS 03/20/19	
TITLE 2PR. SF/UTP HIGH FLEX INDUSTRIAL ETHERNET PATCH CORD -- CAT 5e		
DRAWING #		QWC0012
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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 Ω/1,000'

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

IMPEDANCE	100 ± 15 Ω	1 - 100 MHz
IMPEDANCE, SMOOTHED	100 ± 10 Ω	TYPICAL 5 - 100 MHz
RETURN LOSS	1 ≤ f < 10 MHz	20 + 6 LOG(f) dB MIN*
	10 ≤ f < 20 MHz	26 dB MIN*
	20 ≤ f ≤ 100 MHz	26 - 5 LOG(f/20) dB MIN*
NEXT	1 ≤ f ≤ 100 MHz	35.3 - 15 LOG(f/100) dB MIN
ACRF	1 ≤ f ≤ 100 MHz	23.8 - 20 LOG(f/100) dB MIN
INSERTION LOSS	1 ≤ f ≤ 100 MHz	1.5[1.967 <sup>√(f)</sup> + 0.023(f) + 0.050/√(f)] dB MAX
DELAY	1 ≤ f ≤ 100 MHz	534 + 36/√(f) ns MAX
DELAY SKEW	1 ≤ f ≤ 100 MHz	<25 ns
COUPLING ATTENUATION PER IEC 62153-4-9	30 ≤ f ≤ 100 MHz	60 dB MINIMUM
VELOCITY OF PROPAGATION	68%	

\*PER ODVA VOLUME 2 ETHERNET/IP

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TITLE  
 2PR. SF/UTP HIGH FLEX INDUSTRIAL  
 ETHERNET PATCH CORD -- CAT 5e

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