

1) CONSTRUCTION:		NOM. DIA.
CONDUCTOR:	22 AWG 19/.0058 STRANDED TINNED COPPER	.0280"
INSULATION:	HIGH DENSITY POLYETHYLENE, .013" NOM. WALL THICKNESS	.055"
PAIRS:	COLOR CODED SINGLES TWISTED INTO PAIRS AND WRAPPED WITH AN OVERALL CLEAR POLYESTER TAPE	.113"
CABLE:	(2) TWISTED PAIRS CABLED TOGETHER EMBEDDED WITHIN A CORE OF THERMOPLASTIC ELASTOMER.	.292"
SHIELDS:	AN OVERALL SHIELD OF 36 AWG TINNED COPPER BRAID (65% MINIMUM COVERAGE), SHALL BE APPLIED OVER THE CABLE CORE. A SECOND SHIELD OF AN OVERALL ALUMINIZED POLYESTER FOIL SHIELD (FOIL IN, 100% COVERAGE) SHALL BE APPLIED OVER THE BRAID.	.318"
JACKET:	THERMOPLASTIC ELASTOMER, GREEN (CR# 70), .046" NOM. WALL THICKNESS (PRESSURE)	.410"
	OVERALL CABLE DIAMETER	

2) PHYSICAL PROPERTIES:	
TEMPERATURE RATING, MAX.	75°C
TEMPERATURE RATING, MIN. (STATIC)	-40°C
WT./M', NOM., NET.	86.1 LBS.
FLEX LIFE (PENDING) (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 (PENDING) (1 LB LOAD, 360°, 71 CYCLES/MIN, @ 20°C)	3 MILLION CYCLE TEST

3) ELECTRICAL CHARACTERISTICS:  
SEE PAGE 2

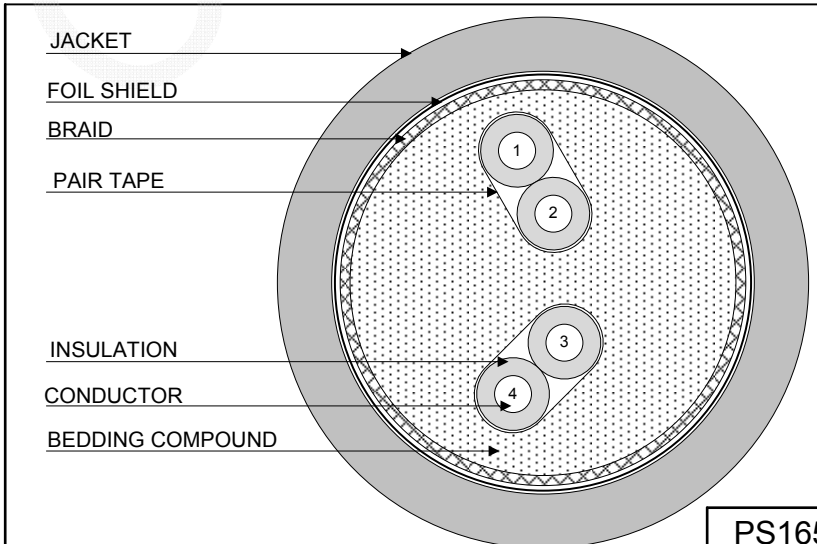
4) AGENCY APPROVALS:  
NEC (UL) TYPE PLTC-ER  
NEC (UL) TYPE CM  
CEC C(UL) TYPE CM

5) APPLICATION:  
PATCH CABLE FOR PROFINET TYPE B AND C AND CAT 5e APPLICATIONS. MEETS EU DIRECTIVE 2011/65/EU (RoHS II).

6) PRINT:  
QUABBIN DATAMAX EXTREME HIGH FLEX PROFINET TYPE B AND C P/N 5098 CAT 5e 2PR 22 AWG SHIELDED (UL) TYPE PLTC-ER 75C SUN RES -40C OR C(UL)US TYPE CM -- CE RoHS -- (LOT DESIGNATOR) (SEQUENTIAL FOOTAGE)

7) COLOR CODE:  
1. WHITE X 2. BLUE  
3. YELLOW X 4. ORANGE

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



PS1654

Created 02/06/18	DRAWN: SGH 10/23/18
REV. 04	CHECKED: ZRS 10/23/18



TITLE  
2 PAIR, 22 AWG, PE/TPE SHIELDED HIGH FLEX  
PROFINET CABLE -- CAT 5e

CUSTOMER APPROVAL:

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## 3) ELECTRICAL CHARACTERISTICS:

POE COMPLIANT (802.3af) TO 100 METERS WHEN INSTALLED PER RECOMMENDATIONS IN TIA TSB-184

CABLE WILL MEET CAT 5e CHANNEL REQUIREMENTS TO 100 METER LENGTH

MUTUAL CAPACITANCE, MAX. 5.6 nF/100m AT 1 kHz @ 20°C

DIELECTRIC WITHSTANDING, MIN. 1500V RMS

VOLTAGE RATING, MAX. 300V

D.C. RESISTANCE, MAX. (GRP I &amp; GRP II) 17.5 Ω/1000' @ 20°C

D.C. RESISTANCE UNBALANCE, MAX. 5% @ 20°C

COUPLING ATTENUATION 30 ≤ f ≤ 100 MHz ≥ 60 dB MIN

TESTED PER IEC 62153-4-9

SURFACE TRANSFER IMPEDANCE 1 ≤ f ≤ 100 MHz 10f mΩ/m

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

IMPEDANCE, CHARACTERISTIC 1 ≤ f ≤ 100 MHz 100 +/- 15 Ω

CAPACITANCE UNBALANCE, MAX.:

PAIR-TO-GROUND 330 pF/100m AT 1 kHz @ 20°C

RETURN LOSS

1 ≤ f &lt; 10 MHz 20 + 5 LOG(f) dB MIN

10 ≤ f &lt; 20 MHz 25 dB MIN

20 ≤ f ≤ 100 MHz 25 - 8.6 LOG(f/20) dB MIN

INSERTION LOSS

1 ≤ f ≤ 100 MHz 1.02(1.967 √f + 0.023(f) + 0.050/√f dB) MAX\*

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

PROPAGATION DELAY

1 ≤ f ≤ 100 MHz 534 + 36/√f ns MAX

PROPAGATION DELAY SKEW

1 ≤ f ≤ 100 MHz ≤ 20 ns

\*2% HIGHER THAN HORIZONTAL CABLE SPECIFICATION PER TIA 568-C.2. CABLE MEETS THE CHANNEL REQUIREMENT AT 100M AND IS SUITABLE FOR 100M PLUG TO PLUG RUN.

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