



**Part Number:** 70008PU

PROFINET, Quad (2 Pr) #22 Str TC, PO Ins, OS+TC Brd, PUR-NH Jkt, AWM 20549 OIL RES

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**Product Description**

PROFINET, Quad (2 Pair) 22AWG (19x34H) Tinned Copper, PO Insulation, Overall Beldfoil®+Tinned Copper Braid(85%) Shield, PUR-NH Outer Jacket, AWM 20549 OIL RES

**Technical Specifications**

**Product Overview**

Environmental Space:	Indoor
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**Physical Characteristics (Overall)**

**Conductor**

AWG	Stranding	Material	Construction n x D	No. of Conductors
22	Stranded	TC - Tinned Copper	19x0.15 mm	4
Conductor Count:				4
Total Number of Pairs:				1 Quad (2)
Conductor Size:				22 AWG

**Insulation**

Material	Nominal Diameter	Diameter +/- Tolerance
PO - Polyolefin	1.63 mm	0.05 mm
Bonded-Pair:		No

**Color Chart**

Number	Color
Quad 1	White & Blue & Yellow & Orange

**Inner Jacket Material**

Material	Nominal Diameter
FRNC / LSZH Bedding	4.3 mm

**Outer Shield Material**

Type	Material	Min. Coverage [%]
Tape	Aluminum/Polyester	
Braid	TC - Tinned Copper	85 %

**Outer Jacket Material**

Material	Color	Nominal Diameter	Diameter +/- Tolerance	Separator Material
PUR (Halogenfree)	Green (RAL 6018)	6.5 mm	0.2 mm	Non-woven foil

**Construction and Dimensions**

**Cabling**

Description
1 quad with center filler

**Electrical Characteristics**

## Conductor DCR

Max. Conductor DCR
57.1 Ohm/km

## Impedance

Frequency [MHz]	Nominal Characteristic Impedance	Nominal Characteristic Tolerance
1 - 100	100 Ohm	15 Ohm

## Delay

Max. Delay	Nominal Velocity of Propagation (VP) [%]
530 ns/100m	68 %

## High Freq

Frequency [MHz]	Max. Insertion Loss (Attenuation)	Min. NEXT [dB]	Min. ACRF (ELFEXT) [dB]	Min. SRL (Structural Return Loss)
1 MHz	2.1 dB/100m	65 dB	64 dB	
4 MHz	4 dB/100m	56 dB	52 dB	23 dB
10 MHz	6.3 dB/100m	50 dB	44 dB	25 dB
16 MHz	8 dB/100m	47 dB	40 dB	25 dB
31.25 MHz	11.4 dB/100m	43 dB	34 dB	23.6 dB
62.5 MHz	16.5 dB/100m	38 dB	28 dB	21.5 dB
100 MHz	21.3 dB/100m	35 dB	24 dB	20.1 dB

## Transfer Impedance

Frequency [MHz]	Transfer Impedance
10 Mhz	Max. 10 mOhm/m

## Voltage

UL Voltage Rating	Voltage Rating [V]
300 V	300 V

## Temperature Range

Installation Temp Range:	-5°C To +60°C
UL Temp Rating:	80°C
Storage Temp Range:	-40°C To +80°C
Operating Temp Range:	-40°C To +80°C
Operating Temp Range (Drag Chain Op):	-5°C To +60°C

## Mechanical Characteristics

Oil Resistance:	IEC 60811-2-1
Torsion Test: Min Number of Torsions:	1000000
Torsion Test: Description:	+/- 180° ,12x/min over 1mtr
Min No. of Drag Chain Cycles:	5000000
Drag Chain Parameters:	a= 3m/s <sup>2</sup> v= 3 m/s and r= 60 mm

## Standards

UL AWM Style:	UL AWM 20549
ISO/IEC Compliance:	ISO/IEC 11801 Ed. 2.2:2002/A2:2010/C1:2011
Data Category:	Category 5e

## Applicable Environmental and Other Programs

EU RoHS Compliance Date (yyyy-mm-dd):	2004-01-01
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## Flammability, LS0H, Toxicity Testing

UL Flammability:	Horizontal flametest
CSA Flammability:	FT2
Amount of Halogen acc. to IEC 60754-1 & EN50267-1:	Pass

## Part Number

## Variants

Item #	Color
70008PU.011000	Green
70008PU.01305	Green
70008PU.01500	Green
70008PU.01B100	Green

## History

Revision Number:	5
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