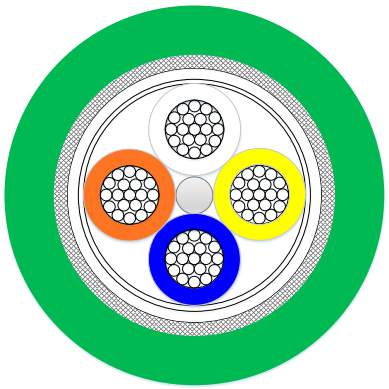
2x2x22AWG Industrial Ethernet Cable Profinet

Profinet Type C, Continuously Flexible

Extra Fine Wires, 5 Million Bending Cycles

PRODUCT DATA SHEET

Profinet Type C Category 5e Stranded Conductor SF/UTP Copper Cable provides reliability and high performance as an integral component of the end to end solution for industrial PROFINET based communications networks.
Category 5e rated cable is suitable for transmission of high performance 10BASE-T,100BASE-T and 1000BASE-T uplinks featuring up to gigabit data transmission from the control panel to the consolidation point.



CONSTRUCTION

Conductor	Stranded tinned copper, extra fine wires
Conductor Size	22AWG(19/34)
Insulation Material	High Density Polyethylene
Core Diameter	Nom.1.5mm
Filler in the center (optional)	Solid PE bar
Stranding	4 cores twisted in star quad construction
Wrapping	Plastic tape (overlapping)
Inner Sheath Material (optional)	Polyethylene, natural
Inner Diameter	Nom. 4.1mm
Screen	Aluminum foil (overlapping)
Braid	Tinned copper wire, coverage min 80%
Outer Sheath Material	Polyurethane
Outer Diameter	6.5±0.3mm
Outer Sheath Color	Matt Green (Similar RAL 6018)
Print Legend	

ASCENT E477982 ** AWM 20549 80°C INDUSTRIAL ETHERNET TRAILING CABLE PROFINET TYPE C PUR CAT5E 2x2x22AWG 80°C CE XXXXXM
Note: "**" is factory code

COLOR CODE

Pair 1: White, Blue
Pair 2: Yellow, Orange

ELECTRICAL PROPERTIES

Peak Operating Voltage	300V (not for power purposes)
Dielectric Strength	Cond. to Cond. 2000V Cond. to Screen 2000V
Conductor Resistance@20°C	60 Ω/km Max.
Insulation Resistance@20°C	5000 MΩ.km Min.
Characteristic Impedance	100±15 Ω (1~100MHz)
Propagation Delay	555 ns/100m Max.
Delay Skew	20 ns/100m Max.
Velocity of Propagation	67%

MECHANICAL & PHYSICAL PROPERTIES

Operating Temperature (°C)	-40°C to +80°C (Fixed installation) -20°C to +75°C (Flexing)
Flame Retardant	IEC 60332-1-2
Drag Chain (Bend Radius 50mm)	Min. 5 million bending cycles
Speed	1.4m/s
Accelerated Speed	60m/s²
Min. Bending Radius	Fixed 4 x OD, Flexing 8 x OD
Certification	UL File E477982, AWM 20549
Reference Standard	TIA-568.2-D, ISO/IEC 11801
RoHS Compliant	
CE Compliant	

TRANSMISSION PERFORMANCE

FLUKE PROFINET CHANNEL CAT5E 90M TEST

Freq.	ATT	RL	NEXT	PSNEXT	ELFEXT	PSELFEXT
MHz	Max.	Min.	Min.	Min.	Min.	Min.
	dB	dB	dB	dB	dB	dB
4	4.5	17.0	53.5	50.5	45.4	42.4
8	6.3	17.0	48.6	45.6	39.3	36.3
10	7.1	17.0	47.0	44.0	37.4	34.4
16	9.1	17.0	43.6	40.6	33.3	30.3
20	10.2	17.0	42.0	39.0	31.4	28.4
25	11.4	16.0	40.3	37.3	29.4	26.4
31.25	12.9	15.1	38.7	35.7	27.5	24.5
62.5	18.6	12.1	33.6	30.6	21.5	18.5
100	24.0	10.0	30.1	27.1	17.4	14.4

Design Number	10816	
Part Number	32181092	
Revision History		
00	2023/07/07	Initial Release
Created L. Jian		Approved A. Huang

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