Profinet PUR Cable

Eland Product Group: A8P

APPLICATION

A flexible fieldbus cable for fixed or dynamic applications, suitable for profinet Type B applications. It has a quad (2 pairs) construction with high levels of shielding efficiency and offers excellent electrical transmissive performance as required from the profinet and Cat5E specifications.

CHARACTERISTICS

Voltage Rating
300V

Temperature Rating
Fixed: -40°C to +80°C
Flexed: -20°C to +60°C

Minimum Bending Radius
Fixed: 6 x overall diameter
Flexed: 12 x overall diameter

CONSTRUCTION

Conductor
Stranded copper conductor

Insulation
Solid PE (polyethylene)

Separation
PET (Polyester Tape)

Inner Sheath
HF (Halogen free)

Shield
Al/PET (Aluminium/Polyester Tape)

Overall Shield
TCWB (Tinned Copper Wire Braid)

Sheath
PUR (Polyurethane)

Core Identification
○ White ● Yellow ● Blue ● Orange

Outer Sheath Colour
● Green

STANDARDS

IEC/EN 61158, UL 1581, VDE 282/10, VDE 0472-265, NEK 606

Flame Retardant according to BS EN/IEC 60332-1-2
Halogen Free according to IEC/EN 60754-1/2

THE CABLE LAB®

AN ISO/IEC 17025 AND IECEE CBTL ACCREDITED FACILITY

Our world-class testing facility assures the quality and compliance of this cable through a continuous and rigorous testing regime.

SUSTAINABILITY COMMITMENT

We are on a journey to Net Zero.

We've committed to near-term emissions reductions and a net-zero target with the Science Based Targets initiative and we're a signatory to the United Nations Global Compact Sustainable Development Goals.

Learn more about embodied carbon and our carbon emissions reduction actions, our comprehensive recycling services, and wider ESG activities for sustainable operations at: www.elandcables.com/company/about-us/esg-sustainability

REGULATORY COMPLIANCE

This cable meets the requirements of the Low Voltage Directive 2014/35/EU, the RoHS Directive 2015/65/EU and Reach Directive EC 1907/2006. RoHS compliance has been tested and confirmed by The Cable Lab®.

DIMENSIONS

ELAND PART NO.	NO. OF CORES	NOMINAL OVERALL DIAMETER mm	NOMINAL WEIGHT kg/km
A8P-PNPUR	4	6.6	70

ELECTRICAL CHARACTERISTICS

Electrical and Transmission Properties at 20°C

MAXIMUM DC RESISTANCE OF CONDUCTOR ohms/km	MUTUAL CAPACITANCE AT 1KHZ nF/km	MAXIMUM CAPACITANCE UNBALANCE pF/km	MAXIMUM RESISTANCE UNBALANCE %	NOMINAL VELOCITY OF PROPAGATION AT 100MHZ %	CHARACTERISTIC IMPEDANCE ohm	MAXIMUM PROPAGATION DELAY AT 100MHZ nsec/100m
55	52	1600	3	3	100	510

MAXIMUM DELAY SKEW AT 100MHZ nsec/100m	SCREENING ATTENUATION dB	COUPLING ATTENUATION dB	TRANSFER IMPEDANCE mohms/m					MINIMUM INSULATION RESISTANCE Gohms/km
			At 100kHZ	At 1MHZ	At 10MHZ	At 30MHz	At 100MHZ	
10	Above 60	50	15	10	12	50	250	5

FREQUENCY MHz	ATTENUATION dB/100m		NEXT dB		EL-FEXT dB/100m		ACR dB/100m		RETURN LOSS dB	
	Standard Maximum	Total	Standard Minimum	Typical	Standard Minimum	Typical	Minimum	Typical	Standard Minimum	Typical
1	2.1	1.7	65.3	85	N/A	85	63.2	83.3	-	30
4	4	3.4	56.3	75	51.8	77	52.3	71.6	24.1	32
10	6.3	5.5	50.3	68	43.8	66	44	62.5	25	36
16	8	7.2	47.2	64	39.7	59	39.2	56.8	25	36
20	9	8.2	45.8	62	37.8	56	36.8	53.8	25	36
31.25	11.4	10.5	42.9	60	33.9	48	31.5	49.5	23.6	34
62.5	16.5	15.4	38.4	52	27.9	40	21.9	36.6	21.5	30
100	21.3	20	35.3	48	23.8	36	14	28	20.1	26

The information contained within this datasheet is for guidance only and is subject to change without notice or liability. All the information is provided in good faith and is believed to be correct at the time of publication. When selecting cable accessories, please note that actual cable dimensions may vary due to manufacturing tolerances.

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