



Product: [BPB52L1F](#)

CAT5 100Ω 4x22AWG Profinet Type B fire resistant cable

Product Description

CAT5 100Ω 4x22AWG Profinet Type B fire resistant cable, IEC 60332-23, EN 50200, EN50289-4-16, 80C, 300V, ROHS

Technical Specifications

Product Overview

Suitable Applications:	For railway Ethernet Networking, Fire resistance, ProfiNet Application
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Construction Details

Conductor

Size	Material
22 AWG	TC - Tinned Copper

Insulation

Material	Nom. Insulation Diameter	Color Code
PO - Polyolefin	1.4 mm (0.055 in)	White, Yellow, Blue, Orange

Table Notes:	Fire resistance tape wrapped over insulated cores
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Outer Shield

Shield Type	Material	Coverage	Notes
Tape	Polyester + Bi-Laminate (Alum+Poly)		
Braid	Tinned Copper (TC)	80%	Fire resistance tape wrapped over braid

Outer Jacket

Material
LSZH - Low Smoke Zero Halogen (Flame Retardant)

Table Notes:	E-beam cross-linked LSZH
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Overall Cable Diameter (Nominal):	7.3 mm (0.29 in)
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Electrical Characteristics

Electricals

Max. Conductor DCR
59.4 Ω/km

Table Notes:	Nom. fitted Impedance (Ω) 100 & Nom. Mutual Capacitance 56 pF/m
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High Frequency

Frequency	Max. Insertion Loss (Attenuation)	Min. NEXT [dB]	Min. RL (Return Loss) [dB]	Min. Coupling Attenuation [dB]
4	4.9 dB/100 m	53	23	
8 MHz	6.9 dB/100 m	48.5	24.5	
10 MHz	7.8 dB/100 m	47	25	
16 MHz	9.9 dB/100 m	43.9	25	
20 MHz	11.1 dB/100 m	42.5	25	
25 MHz	12.5 dB/100 m	41	24.2	

31.3 MHz	14.1 dB/100 m	39.6	23.3	80
40 MHz	16.1 dB/100	38	22.4	80
62.5 MHz	20.4 dB/100 m	35.1	20.7	80
100 MHz	26.4 dB/100 m	32	19	80

Voltage

Voltage Rating	Breakdown Voltage
300 V	2 kVac/min

Mechanical Characteristics

Temperature

Operating
-40 to + 80

Table Notes:	Nom. Bulk Weight of cable 70 kg/km
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Standards and Compliance

Flammability / Reaction to Fire:	IEC 60332-1-2, IEC 60332-3-25, IEC 60331-23, BS EN 50200 PH120
ISO/IEC Compliance:	IEC 61156-2, IEC 61034-2 - Smoke Density Min Transmittance = 70%
CENELEC Compliance:	EN 50289
European Halogen Free Standards:	IEC 60754-1 - Halogen Amount = 0.5%, IEC 60754-2 - Halogen Acid Gas Amount - Max. Conductivity = 10 , IEC 60754-2 - Halogen Acid Gas Amount - Min. pH = 4.3
European Directive Compliance:	EU Directive 2015/863/EU (RoHS 2 amendment), EU Directive 2011/65/EU (RoHS 2)
APAC Compliance:	China RoHS II (GB/T 26572-2011)
Other Standard Compliance(s):	TJ/CL 313

Product Notes

Notes:	Toxicity of insulation (EN 45545-2 Table 5-R15 and R16-HL3) 6 ; Toxicity of jacket (EN 45545-2 Table 5-R15 and R16-HL3) 6 ; Hazard level (EN 45545-2) HL3 ; IEC 61156-6, UL 758
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History

Update and Revision:	Revision Number: 0.18 Revision Date: 04-29-2024
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