

Data sheet

6XV1871-2N

product type designation

product description



IE TP Robust Ground Cable 2x2 (Type C)

Standard bus cable (4-core), for laying underground with metal rodent protection, sold by the meter, unassembled

IE robust ground cable 2x2; Cat5e; PROFINET Type C; underground cable; 4-core shielded, Cat5e, with rodent protection; sold by the meter; delivery unit max. 1000 m; minimum order quantity 20 m.

suitability for use

Standard cable with rigid cores for fast installation

cable designation

2YH(ST)CY(Z)2Y 2X2X0.64/1.45-100 BK

wire length

sold by the meter

electrical data

attenuation factor per length

- at 10 MHz / maximum 0.065 dB/m
- at 100 MHz / maximum 0.22 dB/m

impedance

- at 1 MHz ... 100 MHz 100 Ω

relative symmetrical tolerance

- of the characteristic impedance at 1 MHz ... 100 MHz 15 %

near-end crosstalk per length

- at 1 MHz ... 100 MHz 0.5 dB/m

coupling loss / at 30 MHz ... 100 MHz / minimum

80 dB

transfer impedance per length / at 10 MHz

10 mΩ/m

loop resistance per length / maximum

115 mΩ/m

operating voltage

- RMS value 80 V

NVP value in percent

65 %

mechanical data

number of electrical cores

4

design of the shield

Overlapped aluminum-clad foil, sheathed in a braided screen of tin-plated copper wires

type of electrical connection / FastConnect

Yes

core diameter

- of AWG22 insulated conductor 0.64 mm

outer diameter

- of inner conductor 0.64 mm
- of the wire insulation 1.5 mm
- of the inner sheath of the cable 3.9 mm
- of cable sheath 9.4 mm
- of cable sheath / note Cable diameter > 6.5 mm due to additional PE protective sheath and metal rodent protection. Cable can only be connected in the IE FC RJ45 Plug / IE FC M12 Plug PRO connector after stripping the protective sheath and the rodent protection.

symmetrical tolerance of the outer diameter / of cable sheath

0.4 mm

material

- of the wire insulation polyethylene (PE)
- of the inner sheath of the cable PVC

• of cable sheath	PE/PVC
color	
• of the insulation of data wires	white/yellow/blue/orange
• of cable sheath	Black
bending radius	
• with single bend / minimum permissible	94 mm
• with multiple bends / minimum permissible	141 mm
tensile load / maximum	3000 N
weight per length	129 kg/km
ambient conditions	
ambient temperature	
• during operation	-40 ... +80 °C
• during storage	-40 ... +80 °C
• during transport	-40 ... +80 °C
• during installation	-30 ... +70 °C
• note	Electrical properties measured at 20 °C, tests according to EN50288-2-1
fire behavior	inflammable
class of burning behaviour / according to EN 13501-6	Fca
chemical resistance	
• to mineral oil	conditional resistance
• to grease	Conditional resistance
• to water	Resistant
radiological resistance / to UV radiation	resistant
product features, product functions, product components / general	
product feature	
• halogen-free	No
• PoE capability	Yes
• PoE+ capability	Yes
• silicon-free	Yes
wire length / for Industrial Ethernet	
• with 100BaseTX	100 m
standards, specifications, approvals	
UL/ETL listing / 300 V Rating	No
UL/ETL style / 600 V Rating	No
certificate of suitability	
• EAC approval	Yes
• CE marking	Yes
• RoHS conformity	Yes
standard for structured cabling	Cat5e
Marine classification association	
• American Bureau of Shipping Europe Ltd. (ABS)	No
• French marine classification society (BV)	No
• Det Norske Veritas (DNV)	No
• Germanische Lloyd (GL)	No
• Lloyds Register of Shipping (LRS)	No
• Nippon Kaiji Kyokai (NK)	No
• Polski Rejestr Statków (PRS)	No
reference code	
• according to IEC 81346-2	WG
• according to IEC 81346-2:2019	WGB
further information / internet links	
internet link	
• to website: Selection guide for cables and connectors	https://support.industry.siemens.com/cs/ww/en/view/109766358
• to web page: selection aid TIA Selection Tool	https://www.siemens.com/tstcloud
• to web page: SiePortal	https://sieportal.siemens.com/
• to website: Image database	https://www.automation.siemens.com/bilddb
• to website: CAx-Download-Manager	https://www.siemens.com/cax
• to website: Industry Online Support	https://support.industry.siemens.com
security information	
security information	Siemens provides products and solutions with industrial cybersecurity functions that support the secure operation of plants, systems, machines and networks.

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Approvals / Certificates

General Product Approval

Industrial Communication



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[PROFINET](#)

last modified:

6/27/2025