SIEMENS

Data sheet 6XV1871-2N

product type designation	**IE TP Robust Ground Cable 2x2 (Type C)**
product description	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.



product brand name	SIMATIC NET
Technical Product Detail Page	https://i.siemens.com/1P6XV1871-2N
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.

Subject to change without notice
© Copyright Siemens

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
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
test voltage	
● at AC / core-to-core	2000 V
● at AC / core shield	2000 V
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
● resistance to air pollution / conformity according to ANSI/ISA-71.04	Yes; G3
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 Statkow (PRS)	No
further information / internet links	
internet link	

Subject to change without notice
© Copyright Siemens

● 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. In order to protect plants, systems, machines and networks against cyber threats, it is necessary to implement - and continuously maintain - a holistic, state-of-the-art industrial cybersecurity concept. Siemens' products and solutions constitute one element of such a concept. Customers are responsible for preventing unauthorized access to their plants, systems, machines and networks. Such systems, machines and components should only be connected to an enterprise network or the internet if and to the extent such a connection is necessary and only when appropriate security measures (e.g. firewalls and/or network segmentation) are in place. For additional information on industrial cybersecurity measures that may be implemented, please visit www.siemens.com/cybersecurity-industry. Siemens' products and solutions undergo continuous development to make them more secure. Siemens strongly recommends that product updates are applied as soon as they are available and that the latest product versions are used. Use of product versions that are no longer supported, and failure to apply the latest updates may increase customer's exposure to cyber threats. To stay informed about product updates, subscribe to the Siemens Industrial Cybersecurity RSS Feed under https://www.siemens.com/cert. (V4.7)

Approvals / Certificates

General Product Approval			Industrial Communication
CE EG-Konf.	Manufacturer Declaration	CE EG-Konf.	PROFINET

last modified: 3/10/2026

Subject to change without notice
© Copyright Siemens