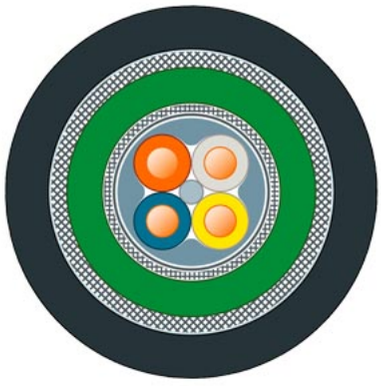
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Data sheet 6XV1871-2N

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, 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
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

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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
● 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 Statkow (PRS)	No
reference code	
● according to IEC 81346-2	WG
● according to IEC 81346-2:2019	WGB
further information / internet links	
internet link	
● to web page: selection aid TIA Selection Tool	http://www.siemens.com/tia-selection-tool
● to website: Industrial communication	http://www.siemens.com/simatic-net
● to website: Industry Mall	https://mall.industry.siemens.com
● to website: Information and Download Center	http://www.siemens.com/industry/infocenter
● to website: Selection guide for cables and connectors	https://sie.ag/2QdlxcP
● to website: Image database	http://automation.siemens.com/bilddb
● to website: CAx-Download-Manager	http://www.siemens.com/cax
● to website: Industry Online Support	https://support.industry.siemens.com

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