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product type designation	**IE TP Ground Cable 4x2 (AWG 24, Type C)**
product description	Shielded TP installation cable (8-core), sold by the meter, unassembled
	IE TP ground cable 4x2 underground cable, CAT6A, 8-core, shielded, cable for Connection to IE FC RJ45 plug 4x2, AWG24, Sold by the meter delivery unit max. 1000 m minimum order quantity 20 m.

suitability for use	Standard cable with rigid cores for fast, permanent installation outdoors and in the ground
cable designation	2YH(ST)CY2Y 4X2X0.5/1.0 BK

electrical data

attenuation factor per length	
● at 10 MHz / maximum	0.058 dB/m
● at 100 MHz / maximum	0.191 dB/m
● at 250 MHz / maximum	0.311 dB/m
● at 300 MHz / maximum	0.343 dB/m
● at 500 MHz / maximum	0.453 dB/m
impedance	
● at 1 MHz ... 100 MHz	100 Ω
near-end crosstalk per length	
● at 1 MHz ... 100 MHz	0.453 dB/m
● at 1 MHz … 250 MHz	0.393 dB/m
● at 1 MHz ... 300 MHz	0.381 dB/m
● at 1 MHz ... 500 MHz	0.348 dB/m
coupling loss / at 30 MHz … 100 MHz / minimum	80 dB
transfer impedance per length / at 10 MHz	20 mΩ/m
loop resistance per length / maximum	190 mΩ/m
insulation resistance coefficient	5000 GΩ·m
operating voltage	
● RMS value	80 V
NVP value in percent	67 %

mechanical data

number of electrical cores	8
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 AWG24 insulated conductor	0.51 mm
outer diameter	
● of inner conductor	0.51 mm
● of the wire insulation	1 mm
● of the inner sheath of the cable	6.1 mm
● of cable sheath	10.5 mm
● of cable sheath / note	IE FC standard cable GP 4x2 (diameter 8 mm) with additional PE outer cover (diameter 10.5 mm)
symmetrical tolerance of the outer diameter / of cable sheath	0.5 mm

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material	
● of the wire insulation	polyethylene (PE)
● of the inner sheath of the cable	FRNC
● of cable sheath	PVC
color	
● of the insulation of data wires	white-blue/blue, white-orange/orange, white-green/green, white-brown/brown
● of cable sheath	green/black
bending radius	
● with single bend / minimum permissible	42 mm
● with multiple bends / minimum permissible	84 mm
tensile load / maximum	100 N
weight per length	107 kg/km

ambient conditions	
ambient temperature	
● during operation	-40 ... +80 °C
● during storage	-40 ... +80 °C
● during transport	-40 ... +80 °C
● during installation	-40 ... +80 °C
● note	In fixed installation -40 °C to 85 °C
class of burning behaviour / according to EN 13501-6	Fca
chemical 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	90 m
● with 1000BaseT	90 m
● for 10GBase T	70 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
product conformity	
● ANSI/TIA-EIA 568-B.2 Cat.5e	Yes
● IEC 61784-5-2-CP 2/2 (Ethernet/IP)	Yes
standard for structured cabling	Cat6A
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 website: Image database	https://www.automation.siemens.com/bilddb
● 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

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Approvals / Certificates

General Product Approval			Test Certificates	Industrial Communication
[Manufacturer Declaration](#)	CE EG-Konf.	UKCA	[Manufacturer Declaration](#)	[PROFINET](#)

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