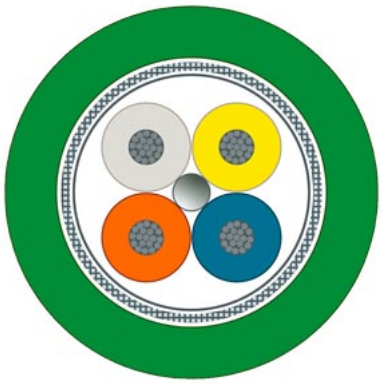
SIEMENS

Data sheet 6XV1870-2F

product description	Highly flexible bus cable (4-core), sold by the meter, unassembled



Industrial Ethernet TP Torsion Cable, 2x2 (PROFINET Type C), TP installation cable, 4-core, shielded Cat5e, for use in highly flexible applications (torsion), sold by the meter, delivery length max. 1000 m, minimum order quantity 20 m.

suitability for use	Continuous motion control when using robots
cable designation	02YS C11Y 1x4x0,75/1,5-100 LI VZN FRNC GN SF/UTP
wire length	sold by the meter
electrical data	
attenuation factor per length	
● at 10 MHz / maximum	0.081 dB/m
● at 100 MHz / maximum	0.41 dB/m
impedance	
● at 1 MHz ... 100 MHz	100 Ω
relative symmetrical tolerance	
● of the characteristic impedance at 1 MHz … 100 MHz	5 %
near-end crosstalk per length	
● at 1 MHz ... 100 MHz	0.5 dB/m
transfer impedance per length / at 10 MHz	100 mΩ/m
loop resistance per length / maximum	120 mΩ/m
operating voltage	
● RMS value	80 V
NVP value in percent	77 %
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	No
core diameter	
● of AWG22 insulated conductor	0.76 mm
outer diameter	
● of inner conductor	0.76 mm
● of the wire insulation	1.5 mm
● of cable sheath	6.5 mm
symmetrical tolerance of the outer diameter / of cable sheath	0.2 mm
material	
● of the wire insulation	polyethylene (PE)
● of cable sheath	PUR (TPE-U)
color	
● of the insulation of data wires	white/yellow/blue/orange
● of cable sheath	green
bending radius	
● with single bend / minimum permissible	32.5 mm
● with multiple bends / minimum permissible	65 mm

number of bending cycles	Not suitable for garland usage
number of torsion cycles / with torsion by ± 180° on 1 m cable length	5000000
tensile load / maximum	130 N
weight per length	54 kg/km
ambient conditions	
ambient temperature	
● during operation	-40 ... +80 °C
● during storage	-40 ... +80 °C
● during transport	-40 ... +80 °C
● during installation	-20 ... +60 °C
● note	Electrical properties measured at 20 °C, tests according to DIN VDE 0472
fire behavior	flame resistant according to IEC 60332-1-2
class of burning behaviour / according to EN 13501-6	Eca
chemical resistance	
● to mineral oil	oil resistant according to IEC 60811-2-1 (7x24h/90°C)
● to grease	Conditional resistance
● to water	conditional resistance
radiological resistance / to UV radiation	resistant
product features, product functions, product components / general	
product feature	
● halogen-free	Yes
● silicon-free	Yes
wire length / for Industrial Ethernet	
● with 100BaseTX	75 m
standards, specifications, approvals	
UL/ETL listing / 300 V Rating	Yes; UL Style 21161
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 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

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Approvals / Certificates

General Product Approval					Test Certificates
Manufacturer Declaration	CE EG-Konf.	Declaration of Conformity	UK CA	CCC	Special Test Certificate

Environment		Industrial Communication
Confirmation	Environmental Confirmations	PROFINET

last modified: 8/8/2024