## **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, for use in highly flexible applications (torsion), sold by the meter, max. delivery unit 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
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	15 %
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	70 %
nechanical 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	
<ul> <li>of AWG22 insulated conductor</li> </ul>	0.76 mm
outer diameter	
of inner conductor	0.76 mm
<ul> <li>of the wire insulation</li> </ul>	1.5 mm
of cable sheath	6.5 mm
symmetrical tolerance of the outer diameter / of cable sheath	0.2 mm
material	
<ul> <li>of the wire insulation</li> </ul>	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	5000000
length	300000
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
	TES
wire length / for Industrial Ethernet  • with 100BaseTX	75
	75 m
standards, specifications, approvals	V III 9/ 1 9/49/
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	
<ul> <li>American Bureau of Shipping Europe Ltd. (ABS)</li> </ul>	No
<ul> <li>French marine classification society (BV)</li> </ul>	No
<ul> <li>Det Norske Veritas (DNV)</li> </ul>	No
Germanische Lloyd (GL)	No
<ul> <li>Lloyds Register of Shipping (LRS)</li> </ul>	No
<ul> <li>Nippon Kaiji Kyokai (NK)</li> </ul>	No
Polski Rejestr Statkow (PRS)	No
reference code	
<ul> <li>according to IEC 81346-2</li> </ul>	WG
• according to IEC 81346-2:2019	WGB
further information / internet links	
internet link	
<ul> <li>to web page: selection aid TIA Selection Tool</li> </ul>	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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