## **SIEMENS**

**Data sheet** 6XV1870-2F

product description

suitability for use



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

Continuous motion control when using robots

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	77 %
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	
<ul> <li>of inner conductor</li> </ul>	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	
of the wire insulation	polyethylene (PE)
of cable sheath	PUR (TPE-U)
color	
<ul> <li>of the insulation of data wires</li> </ul>	white/yellow/blue/orange
of cable sheath	green
bending radius	
<ul> <li>with single bend / minimum permissible</li> </ul>	32.5 mm
<ul> <li>with multiple bends / minimum permissible</li> </ul>	65 mm
number of bending cycles	Not suitable for garland usage

number of torsion cycles / with torsion by $\pm~180^{\circ}$ 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
	resistant
radiological resistance / to UV radiation product features, product functions, product components / gen	
	leral
product feature	v.
• 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	
<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
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: Information and Download Center     to website: Selection guide for cables and connectors	https://sie.aq/2Qd/xcP
to website: Image database     to website: CAx Developed Manager	http://automation.siemens.com/bilddb
to website: CAx-Download-Manager     to website: CAx-Download-Manager	http://www.siemens.com/cax
to website: Industry Online Support	https://support.industry.siemens.com

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