SIEMENS
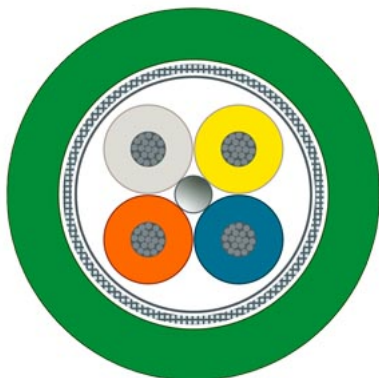
Data sheet **6XV1870-2F**

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 %

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	resistant
● to water	resistant
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 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

last modified:	10/30/2021 ⧉