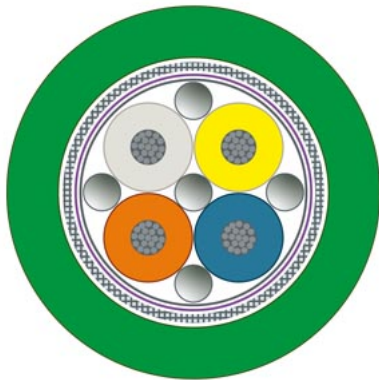


product description



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

IE TP Robot Cable GP 2x2 (PROFINET type R), TP installation cable, 4-core, for use in highly flexible applications (torsion, cable carriers), sold by the meter; max. 1000 m, minimum order quantity 20 m.

suitability for use

constant motion control when used in the robot (torsional and bending load)

electrical data

attenuation factor per length	
• at 10 MHz / maximum	0.095 dB/m
• at 100 MHz / maximum	0.32 dB/m
impedance	
• at 1 MHz ... 100 MHz	120 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	10 mΩ/m
loop resistance per length / maximum	120 mΩ/m
operating voltage	
• RMS value	100 V
NVP value in percent	69 %

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	0.74 mm
outer diameter	
• of inner conductor	0.74 mm
• of the wire insulation	1.6 mm
• of the inner sheath of the cable	5 mm
• of cable sheath	6.5 mm
symmetrical tolerance of the outer diameter / of cable sheath	0.2 mm
material	
• of cable sheath	PUR
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 continuous bending	75 mm
number of bending cycles	5000000; For use in cable carriers, for 5 million bending cycles with a bending radius of 75 mm, a speed of 5 m/s, and an acceleration of 20 m/s ²
number of torsion cycles / with torsion by ± 180° on 1 m cable	5000000

length	
tensile load / maximum	100 N
weight per length	63 kg/km
ambient conditions	
ambient temperature	
• during operation	0 ... 60 °C
• during storage	-20 ... +80 °C
• during transport	-20 ... +80 °C
• during installation	0 ... 60 °C
• note	Electrical properties measured at 20 °C, tests according to DIN VDE 0472
ambient condition / for operation	temperature range for permanent installation -20 °C to 80 °C
fire behavior	flame-resistant according to IEC 60332-1-2 and flame retardant acc. to UL 1581, Sec. 1061
class of burning behaviour / according to EN 13501-6	Eca
chemical resistance	
• to mineral oil	oil-resistant according to DIN EN 60811-404 (7 x 24 h/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	No
• silicon-free	Yes
wire length / for Industrial Ethernet	
• with 100BaseTX	100 m
standards, specifications, approvals	
UL/ETL listing / 300 V Rating	Yes
UL/ETL style / 600 V Rating	Yes
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

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2/3/2023 