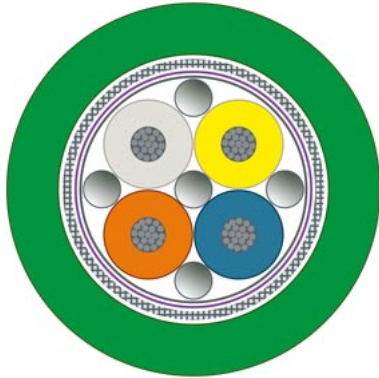


product type designation

product description



IE TP Robot Cable GP, 2x2 (PROFINET Typ R)

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, shielded Cat5e, for use in highly flexible applications (torsion, cable carriers), sold by the meter; max. 1000 m, minimum order quantity 20 m.

Technical Product Detail Page

<https://l.siemens.com/1P6XV1840-2R>

suitability for use

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

cable designation

9Y(ST)C11Y 2X2X0.75/1.6-100 LI VZN GN

wire length

sold by the meter

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 the wire insulation

Polypropylene (PP)

- of cable sheath

PUR

color

- of the insulation of data wires

white/yellow/blue/orange

<ul style="list-style-type: none"> of cable sheath 	green
bending radius	
<ul style="list-style-type: none"> with single bend / minimum permissible 	32.5 mm
<ul style="list-style-type: none"> 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 $\pm 180^\circ$ on 1 m cable length	5000000
tensile load / maximum	100 N
weight per length	63 kg/km

ambient conditions	
ambient temperature	
<ul style="list-style-type: none"> during operation 	0 ... 60 °C
<ul style="list-style-type: none"> during storage 	-20 ... +80 °C
<ul style="list-style-type: none"> during transport 	-20 ... +80 °C
<ul style="list-style-type: none"> during installation 	0 ... 60 °C
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	
<ul style="list-style-type: none"> to mineral oil 	oil-resistant according to DIN EN 60811-404 (7 x 24 h/90 °C)
<ul style="list-style-type: none"> to grease 	Conditional resistance
<ul style="list-style-type: none"> to water 	conditional resistance
radiological resistance / to UV radiation	resistant

product features, product functions, product components / general	
product feature	
<ul style="list-style-type: none"> halogen-free 	No
<ul style="list-style-type: none"> PoE capability 	Yes
<ul style="list-style-type: none"> PoE+ capability 	Yes
<ul style="list-style-type: none"> silicon-free 	Yes
wire length / for Industrial Ethernet	
<ul style="list-style-type: none"> with 100BaseTX 	100 m


standards, specifications, approvals	
UL/ETL listing / 300 V Rating	Yes; c(ETL)us 3047254 CMX 75°C
UL/ETL style / 600 V Rating	Yes; E502506-LFR cRUus AWM 21223 AWM I/II A/B 80°C 600V FT1
certificate of suitability	
<ul style="list-style-type: none"> EAC approval 	Yes
<ul style="list-style-type: none"> CE marking 	Yes
<ul style="list-style-type: none"> RoHS conformity 	Yes
standard for structured cabling	Cat5e
Marine classification association	
<ul style="list-style-type: none"> American Bureau of Shipping Europe Ltd. (ABS) 	No
<ul style="list-style-type: none"> French marine classification society (BV) 	No
<ul style="list-style-type: none"> Det Norske Veritas (DNV) 	No
<ul style="list-style-type: none"> Germanische Lloyd (GL) 	No
<ul style="list-style-type: none"> Lloyds Register of Shipping (LRS) 	No
<ul style="list-style-type: none"> Nippon Kaiji Kyokai (NK) 	No
<ul style="list-style-type: none"> Polski Rejestr Statkow (PRS) 	No

further information / internet links	
internet link	
<ul style="list-style-type: none"> to website: Selection guide for cables and connectors 	https://support.industry.siemens.com/cs/ww/en/view/109766358
<ul style="list-style-type: none"> to web page: selection aid TIA Selection Tool 	https://www.siemens.com/tstcloud
<ul style="list-style-type: none"> to web page: SiePortal 	https://sieportal.siemens.com/
<ul style="list-style-type: none"> to website: Image database 	https://www.automation.siemens.com/bilddb
<ul style="list-style-type: none"> to website: CAX-Download-Manager 	https://www.siemens.com/cax
<ul style="list-style-type: none"> 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 cybersecurity measures that may be implemented, please visit www.siemens.com/cybersecurity-industry. Siemens' products and solutions undergo continuous development to make them more secure. Siemens strongly recommends that product updates are applied as soon as they are available and that the latest product versions are used. Use of product versions that are no longer supported, and failure to apply the latest updates may increase customer's exposure to cyber threats. To stay informed about product updates, subscribe to the Siemens Industrial Cybersecurity RSS Feed under <https://www.siemens.com/cert>. (V4.7)

Approvals / Certificates

General Product Approval	other	Environment
Manufacturer Declaration	Miscellaneous	Environmental Confirmations
 EG-Konf.		

last modified:

10/28/2025 