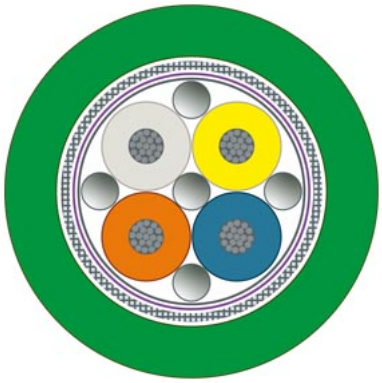
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Data sheet 6XV1840-2R

product type designation	**IE TP Robot Cable GP, 2x2 (PROFINET Typ R)**
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, shielded Cat5e, for use in highly flexible applications (torsion, cable carriers), sold by the meter; max. 1000 m, minimum order quantity 20 m.



product brand name	SIMATIC NET
Technical Product Detail Page	https://i.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	

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● 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/s²
number of torsion cycles / with torsion by ± 180° on 1 m cable length	5000000
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
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
● PoE capability	Yes
● PoE+ capability	Yes
● silicon-free	Yes
wire length / for Industrial Ethernet	
● with 100BaseTX	100 m
test voltage	
● at AC / core-to-core	2000 V
● at AC / core shield	2000 V
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	
● EAC approval	Yes
● CE marking	Yes
● RoHS conformity	Yes
standard for structured cabling	Cat5e
● resistance to air pollution / conformity according to ANSI/ISA-71.04	Yes; G3
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
further information / internet links	
internet link	
● to website: Selection guide for cables and connectors	https://support.industry.siemens.com/cs/ww/en/view/109766358

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● to web page: selection aid TIA Selection Tool	https://www.siemens.com/tstcloud
● to web page: SiePortal	https://sieportal.siemens.com/
● to website: Image database	https://www.automation.siemens.com/bilddb
● to website: CAx-Download-Manager	https://www.siemens.com/cax
● 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	
CE EG-Konf.	Manufacturer Declaration	CE EG-Konf.	Miscellaneous	Environmental Confirmations	Environmental Confirmations

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