

product type designation

product description

IE FC TP Standard Cable GP 4x2 (AWG 22)

Standard bus cable (8-core), sold by the meter, unassembled

Industrial Ethernet FC TP standard cable 4x 2, TP installation cable CAT6A for connection to FC RJ45 Modular outlet, AWG22, sold by the meter, delivery unit max. 1000 m minimum order quantity 20 m.



suitability for use

Standard cable with rigid cores for fast, permanent installation

cable designation

2YH (ST) C 4X2X0.64/1.25-100 GN 4x2xAWG22

wire length

sold by the meter

electrical data

attenuation factor per length

- at 10 MHz / maximum 0.06 dB/m
- at 100 MHz / maximum 0.19 dB/m
- at 250 MHz / maximum 0.33 dB/m

impedance

- at 1 MHz ... 100 MHz 100 Ω

relative symmetrical tolerance

- of the characteristic impedance at 1 MHz ... 100 MHz 5 %

near-end crosstalk per length

- at 1 MHz ... 250 MHz 0.383 dB/m

transfer impedance per length / at 10 MHz

10 mΩ/m

loop resistance per length / maximum

118 mΩ/m

insulation resistance coefficient

5000 GΩ·m

operating voltage

- RMS value 80 V

NVP value in percent

63 %

mechanical data

number of electrical cores

8

design of the shield

Overlapped aluminum-clad foil, sheathed in a braided screen of tin-plated copper wires

type of electrical connection / FastConnect

Yes

core diameter

- of AWG22 insulated conductor 0.64 mm

outer diameter

- of inner conductor 0.64 mm
- of the wire insulation 1.25 mm
- of the inner sheath of the cable 7.6 mm
- of cable sheath 9.6 mm

symmetrical tolerance of the outer diameter / of cable sheath

0.3 mm

material

- of the wire insulation polyethylene (PE)
- of the inner sheath of the cable PVC
- of cable sheath PVC

color

<ul style="list-style-type: none"> • of the insulation of data wires • of cable sheath 	white/blue, white/orange, white/green, white/brown green
bending radius	
<ul style="list-style-type: none"> • with single bend / minimum permissible • with multiple bends / minimum permissible 	38 mm 80 mm
tensile load / maximum	180 N
weight per length	117 kg/km

ambient conditions

ambient temperature	
<ul style="list-style-type: none"> • during operation • during storage • during transport • during installation 	-40 ... +80 °C -40 ... +80 °C -40 ... +80 °C -40 ... +80 °C
fire behavior	flame resistant according to IEC 60332-1
class of burning behaviour / according to EN 13501-6	Eca
chemical resistance	
<ul style="list-style-type: none"> • to mineral oil • to grease • to water 	oil resistant according to IEC 60811-2-1 (4 h / 70°C) Conditional resistance 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 • PoE capability • PoE+ capability • silicon-free 	No Yes Yes Yes
wire length / for Industrial Ethernet	
<ul style="list-style-type: none"> • with 100BaseTX • with 1000BaseT 	90 m 90 m

standards, specifications, approvals

UL/ETL listing / 300 V Rating	Yes; c(UL)us / CMG / cRU AWM I A/B 60°C 300V FT2 / Sun Res
UL/ETL style / 600 V Rating	No
certificate of suitability	
<ul style="list-style-type: none"> • EAC approval • CE marking • RoHS conformity 	Yes Yes Yes
standard for structured cabling	Cat6A
Marine classification association	
<ul style="list-style-type: none"> • American Bureau of Shipping Europe Ltd. (ABS) • French marine classification society (BV) • Det Norske Veritas (DNV) • Germanische Lloyd (GL) • Lloyds Register of Shipping (LRS) • Nippon Kaiji Kyokai (NK) • Polski Rejestr Statkow (PRS) 	No No No No No No No
reference code	
<ul style="list-style-type: none"> • according to IEC 81346-2 • according to IEC 81346-2:2019 	WG WGB

further information / internet links

internet link	
<ul style="list-style-type: none"> • to website: Selection guide for cables and connectors • to web page: selection aid TIA Selection Tool • to web page: SiePortal • to website: Image database • to website: CAX-Download-Manager • to website: Industry Online Support 	https://support.industry.siemens.com/cs/ww/en/view/109766358 https://www.siemens.com/tstcloud https://sieportal.siemens.com/ https://www.automation.siemens.com/bilddb https://www.siemens.com/cax 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
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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

[Manufacturer Declaration](#)



[Declaration of Conformity](#)



[China RoHS](#)

General Product Approval	Environment	Industrial Communication
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[Fire safety / Physical security](#)

[Environmental Conformations](#)

[PROFINET](#)

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