SIEMENS

product type designation	IE FC TP FRNC Cable GP 2x2 (Type B)
product description	Flexible halogen-free bus cable acc. to IEC 60754-1/2 (4-core), sold by the meter, unassembled
	Industrial Ethernet FC TP FRNC GP cable TP installation cable for connection to FC outlet RJ45, 4-core, shielded, Cat5e, sold by the meter, delivery unit max. 4000 m, minimum order quantity 20 m .

suitability for use	For occasionally moved machine parts
cable designation	L-9YH (ST) CH 2x2x0,34/1,5-100 GN VZN FRNC SF/UTP
wire length	sold by the meter

electrical data

attenuation factor per length	
● at 10 MHz / maximum	0.06 dB/m
● at 100 MHz / maximum	0.22 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	10 mΩ/m
loop resistance per length / maximum	120 mΩ/m
operating voltage	
● RMS value	80 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	Yes
core diameter	
● of AWG22 insulated conductor	0.75 mm
outer diameter	
● of inner conductor	0.75 mm
● of the wire insulation	1.5 mm
● of the inner sheath of the cable	3.9 mm
● of cable sheath	6.5 mm
symmetrical tolerance of the outer diameter / of cable sheath	0.2 mm
material	
● of the wire insulation	PP
● of the inner sheath of the cable	FRNC
● of cable sheath	FRNC
color	
● of the insulation of data wires	white/yellow/blue/orange
● of cable sheath	green

bending radius	
• with single bend / minimum permissible	39 mm
• with multiple bends / minimum permissible	97.5 mm
tensile load / maximum	150 N
weight per length	68 kg/km
ambient conditions	
ambient temperature	
• during operation	-25 ... +70 °C
• during storage	-40 ... +75 °C
• during transport	-40 ... +75 °C
• during installation	0 ... 50 °C
• note	Electrical properties measured at 20 °C, tests according to DIN VDE 0472
fire behavior	flame resistant according to IEC 60332-3-22 (Category A/F), IEC 61034-2
class of burning behaviour / according to EN 13501-6	Cca S1a d0 a1
chemical resistance	
• to mineral oil	oil resistant according to IEC 60811-2-1 (4 h / 70°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	Yes; halogen-free according to IEC 60754-1/2
• silicon-free	Yes
• low-emission according to IEC 61034-2	Yes
wire length / for Industrial Ethernet	
• with 100BaseTX	100 m
standards, specifications, approvals	
UL/ETL listing / 300 V Rating	Yes; c(ETL)us, CMG / PLTC / Sun Res / OIL RES
UL/ETL style / 600 V Rating	Yes; cRUus AWM 22375 AWM I A/B 60°C 600V FT2
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 website: Selection guide for cables and connectors	https://support.industry.siemens.com/cs/ww/en/view/109766358
• 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

					Environment
Manufacturer Declaration	CE EG-Konf.	UKCA	Declaration of Conformity	CCC	Confirmation

Environment	Industrial Communication
Environmental Confirmations	PROFINET

last modified:	8/8/2024