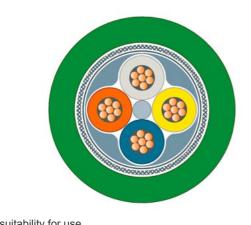
## **SIEMENS**

Data sheet 6XV1840-4AH10

product description



Halogen-free bus cable acc. to IEC 60754-1/2 (4-core), sold by the meter, unassembled

Industrial Ethernet FC TP Marine Cable, TP installation cable for connection to FC outlet RJ45, shipbuilding certified, 4-core, shielded, Cat5, sold by the meter, delivery unit max. 1000 m, minimum order quantity 20 m.

cable designation       L-9YH (ST) CH 2 x 2 x 0,34/1,5-100 GN VZN FRNC SF/UTP         olectrical data         attenuation factor per length       0.06 dB/m         • at 10 MHz / maximum       0.22 dB/m         impedance       100 Ω         • at 1 MHz 100 MHz       100 Ω         relative symmetrical tolerance       0 of the characteristic impedance at 1 MHz 100         MHz       15 %         near-end crosstalk per length       15 %         • at 1 MHz 100 MHz       10 mΩ/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       66 %         mechanical data       1         number of electrical cores       4         design of the shield       Overlapped aluminum-clad foli, 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         of the wire insulation       1.5 mm         • of the wire insulation       9.7 mm         • of the wire insulation       PP         • of the wire insulation       PP <th>suitability for use</th> <th>For marine and offshore use</th>	suitability for use	For marine and offshore use
attenuation factor per length  at 100 MHz / maximum  at 100 MHz / maximum  0.22 dB/m  impedance  at 1 MHz 100 MHz  relative symmetrical tolerance  of the wire insulation  of the wire insulation  of the wire insulation  material  of cable sheath  material  of cable sheath  material  of the wire insulation  of MHz maximum  0.06 dB/m  0.22 dB/m  0.02 dB/m  100 Ω  15 %  16 %  17 %  18 %	cable designation	L-9YH (ST) CH 2 x 2 x 0,34/1,5-100 GN VZN FRNC SF/UTP
at 10 MHz / maximum at 100 MHz / maximum 0.22 dB/m  impedance at 1 MHz 100 MHz relative symmetrical tolerance of the characteristic impedance at 1 MHz 100 MHz near-end crosstalk per length at 1 MHz 100 MHz 15 %  near-end crosstalk per length at 1 MHz 100 MHz 10 mΩ/m loop resistance per length / at 10 MHz loop resistance per length / maximum operating voltage a RN/S value NVP value in percent 66 %  mechanical data number of electrical cores design of the shield  design of the shield volver diameter of AWG22 insulated conductor outer diameter of the wire insulation of the inner sheath of the cable of cable sheath symmetrical tolerance of the outer diameter / of cable sheath material of cable sheath france of cable sheath france of cable sheath france of cable sheath of cable sheath FRNC color	electrical data	
at 100 MHz / maximum impedance  at 1 MHz 100 MHz relative symmetrical tolerance  of the characteristic impedance at 1 MHz 100 MHz near-end crosstalk per length  at 1 MHz 100 MHz  transfer impedance per length / at 10 MHz loop resistance per length / maximum operating voltage  RNS value NVP value in percent  design of the shield  vertical connection / FastConnect core diameter  of the wire insulation of the wire insula	attenuation factor per length	
impedance	• at 10 MHz / maximum	0.06 dB/m
• at 1 MHz 100 MHz       100 Ω         relative symmetrical tolerance       • of the characteristic impedance at 1 MHz 100 MHz         near-end crosstalk per length       • at 1 MHz 100 MHz         transfer impedance per length / at 10 MHz       10 mΩ/m         loop resistance per length / maximum       120 mΩ/m         operating voltage       • RMS value         • RMS value       80 V         NVP value in percent       66 %         mechanical data       0 Verlapped aluminum-clad foil, sheathed in a braided screen of tinplated 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 wire insulation       1.5 mm         • of cable sheath       6.5 mm         symmetrical tolerance of the outer diameter / of cable sheath       0.2 mm         material       • of the wire insulation       PP         • of table sheath of the cable       FRNC         • of cable sheath       FRNC         • of cable sheath       FRNC	• at 100 MHz / maximum	0.22 dB/m
relative symmetrical tolerance	impedance	
of the characteristic impedance at 1 MHz 100     MHz near-end crosstalk per length	• at 1 MHz 100 MHz	100 Ω
mar-end crosstalk per length  • at 1 MHz 100 MHz  transfer impedance per length / at 10 MHz  loop resistance per length / maximum  operating voltage  • RMS value  NVP value in percent  mechanical data  number of electrical cores  design of the shield  Overlapped alluminum-clad foil, sheathed in a braided screen of tin-plated copper wires  type of electrical connection / FastConnect  ves  core diameter  • of AWG22 insulated conductor  outer diameter  • of inner conductor  • of the wire insulation  • of the wire insulation  symmetrical tolerance of the outer diameter / of cable sheath  material  • of the wire insulation  • of the inner sheath of the cable  • of cable sheath  material  • of the wire insulation  • of the inner sheath of the cable  • of cable sheath  FRNC  FRNC	relative symmetrical tolerance	
• 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       80 V         • RMS value       80 V         NVP value in percent       66 %         mechanical data          number of electrical cores       4         design of the shield       Overlapped aluminum-clad foil, sheathed in a braided screen of tinplated copper wires         type of electrical connection / FastConnect       Yes         core diameter       0 of AWG22 insulated conductor       0.75 mm         outer diameter       0 of the wire insulation       1.5 mm         of the wire 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		15 %
transfer impedance per length / at 10 MHz loop resistance per length / maximum operating voltage • RMS value NVP value in percent 66 %  mechanical data number of electrical cores design of the shield  Overlapped aluminum-clad foil, sheathed in a braided screen of tinplated copper wires  type of electrical connection / FastConnect core diameter • of AWG22 insulated conductor outer diameter • of inner conductor • of the wire insulation • of the vire insulation • of cable sheath symmetrical tolerance of the outer diameter / of cable sheath material • of the wire insulation • of the inner sheath of the cable • of the wire insulation • of the outer diameter / of cable sheath material • of the wire insulation • of the inner sheath of the cable • of cable sheath FRNC FRNC	near-end crosstalk per length	
loop resistance per length / maximum   120 mΩ/m     operating voltage   80 V     NVP value in percent   66 %     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     of the wire insulation   PP     • of the wire insulation   PP     • of the inner sheath of the cable   FRNC     • of cable sheath   FRNC     • of cable sheath   FRNC     color   FRNC     color	● at 1 MHz 100 MHz	0.5 dB/m
operating voltage  • RMS value  NVP value in percent  66 %  mechanical data  number of electrical cores  design of the shield  type of electrical connection / FastConnect  core diameter  • of AWG22 insulated conductor  outer diameter  • of inner conductor  • of the wire insulation  • of the inner sheath of the cable sheath  material  • of the wire insulation  • of the wire insulation  place of the wire insulation  process  0.2 mm  PP  • of the wire insulation  • of the wire insulation  • of the outer diameter / of cable sheath  material  • of the wire insulation  • of the inner sheath of the cable FRNC  • of cable sheath  • of cable sheath  FRNC  FRNC	transfer impedance per length / at 10 MHz	10 mΩ/m
RMS value  NVP value in percent  66 %  mechanical data  number of electrical cores  design of the shield  Ves  Core diameter  of AWG22 insulated conductor  outer diameter  of the wire insulation  of the inner sheath of the cable sheath  material  of the wire insulation  of the wire insulation  e of the wire insulation  symmetrical tolerance of the outer diameter / of cable sheath  material  of the wire insulation  of the wire insulation  PP  frince  frince  PP  FRNC  FRNC  FRNC  FRNC  FRNC	loop resistance per length / maximum	120 mΩ/m
NVP value in percent  mechanical data  number of electrical cores	operating voltage	
mechanical data  number of electrical cores  design of the shield  Overlapped aluminum-clad foil, sheathed in a braided screen of tin- plated copper wires  Yes  core diameter  of AWG22 insulated conductor  outer diameter  of inner conductor  of the wire insulation  of the inner sheath of the cable sheath  material  of the wire insulation  of the wire insulation  of the wire insulation  part of the outer diameter / of cable sheath  part of the wire insulation  of the wire insulation  precious methods  of the wire insulation  of the wire insulation  of the wire insulation  of the wire insulation  of the inner sheath of the cable  of cable sheath  FRNC  FRNC  color	RMS value	80 V
number of electrical cores  design of the shield  Overlapped aluminum-clad foil, sheathed in a braided screen of tin- plated copper wires  Yes  core diameter  of AWG22 insulated conductor  outer diameter  of the wire insulation  of the inner sheath of the cable sheath  material  of the wire insulation  of the wire insulation  e of the wire insulation  plated copper wires  Yes  0.75 mm  0.75 mm  1.5 mm  3.9 mm  6.5 mm  9.2 mm  PP  of the wire insulation  PP  of the wire insulation  of the wire insulation  FRNC  FRNC  FRNC  Color	NVP value in percent	66 %
design of the shield  Overlapped aluminum-clad foil, sheathed in a braided screen of tin- plated copper wires  Yes  core diameter  of AWG22 insulated conductor  outer diameter  of the wire insulation  of the inner sheath of the cable sheath  material of the wire insulation of the wire insulation  of the wire insulation  PP  FRNC  color	mechanical data	
type of electrical connection / FastConnect  type of electrical connection / FastConnect  of AWG22 insulated conductor  outer diameter  of inner conductor  of the wire insulation  of the wire insulation  of cable sheath  symmetrical tolerance of the outer diameter / of cable sheath  material  of the wire insulation  of the wire insulation  PP  of the inner sheath of the cable  of the inner sheath of the cable  FRNC  of cable sheath  FRNC  FRNC	number of electrical cores	4
core diameter  of AWG22 insulated conductor  outer diameter  of inner conductor  of the wire insulation  of the inner sheath of the cable  of cable sheath  symmetrical tolerance of the outer diameter / of cable sheath  material  of the wire insulation  of the wire insulation  e of the outer diameter / of cable  sheath  PP  of the inner sheath of the cable  FRNC  of cable sheath  FRNC  FRNC	design of the shield	
of AWG22 insulated conductor     outer diameter     of inner conductor     of the wire insulation     of the inner sheath of the cable     of cable sheath     symmetrical tolerance of the outer diameter / of cable sheath  material     of the wire insulation     of the wire insulation     of the inner sheath of the cable     of the sheath of the cable     of the inner sheath of the cable     of cable sheath  FRNC color	type of electrical connection / FastConnect	Yes
outer diameter  • of inner conductor  • of the wire insulation  • of the inner sheath of the cable  • of cable sheath  symmetrical tolerance of the outer diameter / of cable sheath  material  • of the wire insulation  • of the wire insulation  • of the inner sheath of the cable  • of cable sheath  FRNC  color	core diameter	
of inner conductor     of the wire insulation     of the inner sheath of the cable     of cable sheath     of cable sheath     symmetrical tolerance of the outer diameter / of cable sheath  material     of the wire insulation     of the inner sheath of the cable     of cable sheath     of cable sheath     FRNC     of cable sheath  color	of AWG22 insulated conductor	0.75 mm
<ul> <li>of the wire insulation</li> <li>of the inner sheath of the cable</li> <li>of cable sheath</li> <li>symmetrical tolerance of the outer diameter / of cable sheath</li> <li>material</li> <li>of the wire insulation</li> <li>of the inner sheath of the cable</li> <li>of cable sheath</li> <li>FRNC</li> </ul>	outer diameter	
of the inner sheath of the cable     of cable sheath     of cable sheath  symmetrical tolerance of the outer diameter / of cable sheath  material     of the wire insulation     of the inner sheath of the cable     of cable sheath  color  3.9 mm  0.2 mm  PP  FRNC	<ul> <li>of inner conductor</li> </ul>	0.75 mm
of cable sheath     symmetrical tolerance of the outer diameter / of cable sheath  material     of the wire insulation     of the inner sheath of the cable     of cable sheath     color      of cable sheath      FRNC  FRNC  FRNC	<ul> <li>of the wire insulation</li> </ul>	1.5 mm
symmetrical tolerance of the outer diameter / of cable sheath  material  of the wire insulation  of the inner sheath of the cable  of cable sheath  FRNC  FRNC  color	<ul> <li>of the inner sheath of the cable</li> </ul>	3.9 mm
sheath  material  of the wire insulation  of the inner sheath of the cable  of cable sheath  FRNC  FRNC  FRNC  FRNC		6.5 mm
<ul> <li>of the wire insulation</li> <li>of the inner sheath of the cable</li> <li>of cable sheath</li> <li>color</li> </ul> PP FRNC FRNC FRNC		0.2 mm
<ul> <li>of the inner sheath of the cable</li> <li>of cable sheath</li> <li>color</li> </ul> FRNC FRNC	material	
● of cable sheath FRNC	<ul> <li>of the wire insulation</li> </ul>	PP
color	<ul> <li>of the inner sheath of the cable</li> </ul>	FRNC
	of cable sheath	FRNC
	color	
● or the insulation of data wires white/yellow/blue/orange	<ul> <li>of the insulation of data wires</li> </ul>	white/yellow/blue/orange

of cable sheath	green
bending radius	9.00.
with single bend / minimum permissible	39 mm
with single bend / minimum permissible     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 operation     during storage	-40 +85 °C
during transport	-40 +85 °C
during installation	0 50 °C
• note	Electrical properties measured at 20 °C, tests according to DIN VDE
	0472
ambient condition / for operation	Temperature range for permanent installation -40 °C to 85 °C
fire behavior	flame resistant according to IEC 60332-3-22 (Category A/F), smoke density according to IEC 61034-1/2
class of burning behaviour / according to EN 13501-6	Eca
chemical resistance	
• to mineral oil	conditional resistance, IEC 60811-2-1 (4 hours / 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
• silicon-free	Yes
wire length / for Industrial Ethernet	
with 100BaseTX	85 m
standards, specifications, approvals	
UL/ETL listing / 300 V Rating	Yes; cULus / CMG / PLTC / Sun Res
UL/ETL style / 600 V Rating	No
certificate of suitability	
<ul> <li>EAC approval</li> </ul>	Yes
• CE marking	Yes
RoHS conformity	Yes
standard for structured cabling	Cat5e
Marine classification association	V
American Bureau of Shipping Europe Ltd. (ABS)      Freedbarding elegation assists (D)()	Yes
French marine classification society (BV)  Pat Name (A) (Critical (CDN))  Pat Name (CDN)  Pat Name (CDN)	Yes
Det Norske Veritas (DNV)     Companieshe Heard (CL)	Yes
Germanische Lloyd (GL)     Lloyde Register of Shipping (LRS)	Yes
Lloyds Register of Shipping (LRS)     Nippon Kajii Kyokai (NK)	Yes
Nippon Kaiji Kyokai (NK)     Polski Pejestr Statkow (PRS)	No No
Polski Rejestr Statkow (PRS)  reference code	INC
according to IEC 81346-2	WG
<ul> <li>according to IEC 81346-2:2019</li> </ul>	WGB
further information / internet-Links	
Internet-Link	
to web page: selection aid TIA Selection Tool	http://www.siemens.com/tia-selection-tool
to web page. Selection and TIA Selection Tool     to website: Industrial communication	http://www.siemens.com/simatic-net
to website: Industrial communication     to website: Industry Mall	https://mall.industry.siemens.com
to website: Industry Mail     to website: Information and Download Center	http://www.siemens.com/industry/infocenter
to website: Selection guide for cables and	https://sie.aq/2QdlxcP
connectors	
<ul><li>to website: Image database</li></ul>	http://automation.siemens.com/bilddb
<ul><li>to website: CAx-Download-Manager</li></ul>	http://www.siemens.com/cax
• to website: Industry Online Support	https://support.industry.siemens.com
last modified:	10/30/2021 🖸