SIEMENS

Data sheet 6XV1840-3AH10

product description

suitability for use



Highly flexible bus cable (4-core), sold by the meter, unassembled

Continuous motion control in a cable carrier

Industrial Ethernet FC TP Trailing Cable, 2x2 (PROFINET type C), TP installation cable for connection to FC outlet RJ45, for cable carrier applications, 4-core, shielded, Cat5e, sold by the meter (4 million bending cycles), max. delivery unit 2000 m, minimum order quantity 20 m.

electrical data attenuation factor per length	cable designation	2YH (ST) C11Y 2x2x0,75/1,5-100 LI GN VZN FRNC SF/UTP
■ at 10 MHz / maximum ■ at 100 MHz / maximum	electrical data	
impedance e at 1 MHz 100 MHz relative symmetrical tolerance e of the characteristic impedance at 1 MHz 100 MHz near-end crosstalk per length e at 1 MHz 100 MHz transfer impedance per length / at 10 MHz transfer impedance per length / at 10 MHz transfer impedance per length / maximum operating voltage e RMS value NVP value in percent e Residual or selectrical cores design of the shield Overlapped aluminum-clad foil, sheathed in a braided screen of tin-plated copper wires type of electrical connection / FastConnect ver of AWG22 insulated conductor outer diameter e 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 inner sheath of the cable of cable sheath PUR (TPE-U) color of the insulation of data wires of cable sheath bending radius	attenuation factor per length	
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 / at 10 MHz loop resistance per length / maximum operating voltage • RMS value NVP value in percent 69 % nechanical data number of electrical cores design of the shield Overlapped aluminum-clad foil, sheathed in a braided screen of tin-plated copper wires type of electrical connection / FastConnect ves of AWG22 insulated conductor outer diameter • of AWG22 insulated conductor of the wire insulation • of the wire insulation • of the hiner sheath of the cable • of cable sheath symmetrical tolerance of the outer diameter / of cable sheath material • of the wire insulation • of cable sheath pulk (PE) FRNC • of cable sheath PUR (TPE-U) color • of the insulation of data wires • of cable sheath pending radius	• at 10 MHz / maximum	0.06 dB/m
e 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 10.5 dB/m transfer impedance per length / at 10 MHz loop resistance per length / maximum operating voltage • RMS value 80 V NVP value in percent 69 % mechanical data number of electrical cores design of the shield Overlapped aluminum-clad foil, sheathed in a braided screen of tin-plated copper wires type of electrical connection / FastConnect • 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 cable sheath of cable sheath of cable sheath punc (TPE-U) color • of the insulation of data wires • of cable sheath pending radius	• at 100 MHz / maximum	0.22 dB/m
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 / at 10 MHz loop resistance per length / maximum operating voltage • RMS value NVP value in percent fees we will be sheld overlapped aluminum-clad foil, sheathed in a braided screen of tin-plated copper wires type of electrical conection / FastConnect ver core diameter • of AWG22 insulated 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 inner sheath of the cable • of cable sheath PUR (TPE-U) color • of cable sheath bending radius	impedance	
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 RMS value NVP value in percent odesign of the shield Overlapped aluminum-clad foil, sheathed in a braided screen of tin-plated copper wires type of electrical connection / FastConnect vector diameter of AWG22 insulated conductor outer diameter of the wire insulation of the inner sheath of the cable of the wire insulation of the wire insulation of the inner sheath of the cable of cable sheath of the inner sheath of data wires of the insulation of data wires of the insulation of data wires of the insulation of data wires of cable sheath purchance of the braid of the sheath purchance of the cable of the cable of cable sheath purchance of the insulation of data wires of the insulation of data wires of cable sheath purchance of the outer diameter white/yellow/blue/orange green	• at 1 MHz 100 MHz	100 Ω
near-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 aluminum-clad foll, 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 • of the wire insulation wire played aluminum-clad foll, sheathed in a braided screen of tin-plated copper wires Ves color of the wire insulation of data wires of cable sheath PUR (TPE-U) color of the insulation of data wires of cable sheath bending radius	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 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 the wire insulation 1.5 mm • of the wire insulation 3.9 mm • of cable sheath 0.2 mm symmetrical tolerance of the outer diameter / of cable sheath 0.2 mm material • of the wire insulation polyethylene (PE) • of cable sheath PUR (TPE-U) color • of cable sheath white/yellow/blue/orange • of cable sheath green bending radius	of the characteristic impedance at 1 MHz 100 MHz	15 %
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 wire insulation 1.5 mm symmetrical tolerance of the outer diameter / of cable sheath 0.2 mm material • of the wire insulation polyethylene (PE) • of the wire insulation polyethylene (PE) • of the inner sheath of the cable FRNC • of cable sheath PUR (TPE-U) color • of the insulation of data wires white/yellow/blue/orange • of cable sheath bending radius	near-end crosstalk per length	
loop resistance per length / maximum operating voltage • RMS value NVP value in percent mechanical data number of electrical cores 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 outer diameter • of inner conductor • of the wire insulation • of the inner sheath of the cable • of cable sheath metrical tolerance of the outer diameter / of cable sheath of the wire insulation • of the inner sheath of the cable • of cable sheath • of cable sheath • of the wire insulation • of the inner sheath of the cable • of cable sheath • of the inner sheath of the cable • of cable sheath • of the inner sheath of the cable • of cable sheath • of the inner sheath of the cable • of cable sheath • of the inner sheath of the cable • of cable sheath pulk (TPE-U) bending radius	• at 1 MHz 100 MHz	0.5 dB/m
operating voltage • RMS value NVP value in percent mechanical data number of electrical cores design of the shield Overlapped aluminum-clad foil, sheathed in a braided screen of tin-plated copper wires type of electrical connection / FastConnect type of electrical connection / FastConnect ore 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 • of the wire insulation • of the inner sheath of the cable • of cable sheath • of the wire insulation • of the wire insulation • of the inner sheath of the cable • of cable sheath • of cable sheath • of cable sheath • of cable sheath pug (TPE-U) bending radius	transfer impedance per length / at 10 MHz	10 mΩ/m
RMS value 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 other diameter of the wire insulation 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 polyethylene (PE) FRNC of cable sheath of the inner sheath of the cable of cable sheath PUR (TPE-U) bending radius	loop resistance per length / maximum	120 mΩ/m
NVP value in percent mechanical data number of electrical cores 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 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 inner sheath of the cable FRNC of cable sheath of the inner sheath of the cable of cable sheath of the wire insulation of the inner sheath of the cable of the wire insulation of the inner sheath of the cable of cable sheath pulk (TPE-U) color of the insulation of data wires white/yellow/blue/orange of cable sheath bending radius	operating voltage	
number of electrical cores 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 outer diameter of the wire insulation of the wire insulation of the inner sheath of the cable symmetrical tolerance of the outer diameter / of cable sheath material of the wire insulation of the wire insulation polyethylene (PE) of cable sheath PUR (TPE-U) color of the insulation of data wires of cable sheath preen white/yellow/blue/orange green bending radius	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 type of electrical connection / FastConnect Yes ore diameter of AWG22 insulated conductor 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 inner sheath of the cable of the wire insulation polyethylene (PE) FRNC of cable sheath PUR (TPE-U) color of the insulation of data wires of cable sheath preen white/yellow/blue/orange green bending radius	NVP value in percent	69 %
design of the shield Overlapped aluminum-clad foil, sheathed in a braided screen of tin-plated copper wires type of electrical connection / FastConnect Yes ore 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 inner sheath of the cable of cable sheath PUR (TPE-U) color of the insulation of data wires of cable sheath bending radius	mechanical data	
type of electrical connection / FastConnect Yes 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 polyethylene (PE) FRNC of cable sheath PUR (TPE-U) color of the insulation of data wires of cable sheath preen white/yellow/blue/orange green	number of electrical cores	4
core diameter outer diameter of inner conductor of the wire insulation of the inner sheath of the cable of cable sheath of the wire insulation 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 inner sheath of the cable FRNC of cable sheath pure (PE) FRNC of cable sheath Pure (TPE-U) color of the insulation of data wires of cable sheath green	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 of cable sheath 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 of cable sheath pur (TPE-U) color of the insulation of data wires of cable sheath preen	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 of the wire insulation of the wire insulation of the wire insulation of the inner sheath of the cable of cable sheath PUR (TPE-U) color of the insulation of data wires of cable sheath pending radius	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 of the wire insulation of the inner sheath of the cable of cable sheath of the inner sheath of the cable of cable sheath Color of the insulation of data wires of cable sheath bending radius O.75 mm 1.5 mm 0.2 mm PUR (PE) FRNC FRNC PUR (TPE-U) Color white/yellow/blue/orange green	of AWG22 insulated conductor	0.75 mm
 of the wire insulation of the inner sheath of the cable 3.9 mm of cable sheath symmetrical tolerance of the outer diameter / of cable sheath of the wire insulation of the inner sheath of the cable of cable sheath of cable sheath purple (PE) FRNC of cable sheath PUR (TPE-U) 	outer diameter	
 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 inner sheath of the cable of cable sheath of cable sheath of the insulation of data wires of cable sheath white/yellow/blue/orange of cable sheath green 	 of inner conductor 	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 PUR (TPE-U) color of the insulation of data wires of cable sheath pulse of cable sheath green bending radius	 of the wire insulation 	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 PUR (TPE-U) color of the insulation of data wires of cable sheath purchase white/yellow/blue/orange green bending radius	 of the inner sheath of the cable 	3.9 mm
material of the wire insulation polyethylene (PE) FRNC of cable sheath PUR (TPE-U) color of the insulation of data wires of cable sheath green bending radius	of cable sheath	6.5 mm
 of the wire insulation of the inner sheath of the cable of cable sheath of the insulation of data wires of cable sheath pure (TPE-U) color of the insulation of data wires of cable sheath green bending radius	symmetrical tolerance of the outer diameter / of cable sheath	0.2 mm
of the inner sheath of the cable of cable sheath PUR (TPE-U) color of the insulation of data wires of cable sheath green bending radius	material	
of cable sheath PUR (TPE-U) color of the insulation of data wires	 of the wire insulation 	polyethylene (PE)
color • of the insulation of data wires • of cable sheath bending radius white/yellow/blue/orange green	 of the inner sheath of the cable 	FRNC
 of the insulation of data wires of cable sheath bending radius white/yellow/blue/orange green	of cable sheath	PUR (TPE-U)
of cable sheath green bending radius	color	
bending radius	 of the insulation of data wires 	white/yellow/blue/orange
	of cable sheath	green
• with single bend / minimum permissible 19.5 mm	bending radius	
	 with single bend / minimum permissible 	19.5 mm

• with multiple bends / minimum permissible	49 mm
with continuous bending	100 mm
number of bending cycles	4000000; Drag chain suitable for 4 million bending cycles at a bending radius of 100 mm, a speed of 4 m/s and an acceleration of 4 m/s²
tensile load / maximum	150 N
weight per length	63 kg/km
ambient conditions	
ambient temperature	
during operation	-40 +75 °C
during storage	-50 +75 °C
during transport	-50 +75 °C
during installation	-20 +60 °C
• note	Electrical properties measured at 20 °C, tests according to DIN VDE 0472
fire behavior	flame resistant according to IEC 60332-1-2
class of burning behaviour / according to EN 13501-6	Eca
chemical resistance	200
• to mineral oil	oil resistant according to IEC 60811-2-1 (7x24h/90°C)
• to grease	resistant
• to water	resistant
radiological resistance / to UV radiation	resistant
product features, product functions, product components / gene	eral
product feature	W
• 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 / CMX
UL/ETL style / 600 V Rating	Yes; cRU AWM I A/B 80°C 600V
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 web page: selection aid TIA Selection Tool	http://www.siemens.com/tia-selection-tool
	http://www.siemens.com/simatic-net
to website: Industrial communication	
to website: Industrial communication to website: Industry Mall	
• to website: Industry Mall	https://mall.industry.siemens.com
to website: Industry Mallto website: Information and Download Center	https://mall.industry.siemens.com http://www.siemens.com/industry/infocenter
 to website: Industry Mall to website: Information and Download Center to website: Selection guide for cables and connectors 	https://mall.industry.siemens.com http://www.siemens.com/industry/infocenter https://sie.ag/2QdlxcP
 to website: Industry Mall to website: Information and Download Center to website: Selection guide for cables and connectors to website: Image database 	https://mall.industry.siemens.com http://www.siemens.com/industry/infocenter https://sie.ag/2QdlxcP http://automation.siemens.com/bilddb
 to website: Industry Mall to website: Information and Download Center to website: Selection guide for cables and connectors 	https://mall.industry.siemens.com http://www.siemens.com/industry/infocenter https://sie.ag/2QdlxcP

A R S H G P Arsh Control Borna