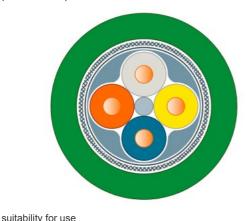
SIEMENS

Data sheet 6XV1840-2AH10

product description



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

Industrial Ethernet FC TP Standard cable, GP 2x2 (PROFINET Type A), TP installation cable for connection to IE FC RJ45 2x2, for universal use, 4-core, shielded CAT 5E, sold by the meter, delivery unit max. 4000 m minimum order quantity 20 m.

cable designation 2YY (ST) CY 2x2x0,64/1,5-100 GN SF/UTP	suitability for use	Standard cable with rigid cores for fast installation
attenuation factor per length at 10 MHz / maximum at 100 MHz / maximum 0.195 dB/m impedance at 1 MHz 100 MHz relative symmetrical tolerance of the characteristic impedance at 1 MHz 100 MHz 15 % near-end crosstalk per length at 1 MHz 100 MHz transfer impedance per length / at 10 MHz 10 mΩ/m 10 por pesistance per length / at 10 MHz 10 mΩ/m 115 mΩ/m operating voltage RMS value NVP value in percent operating voltage er RMS value NVP value in percent operating of the shield Overlapped aluminum-clad foil, sheathed in a braided screen of tin-plated copper wires type 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 inner sheath of the cable of cable sheath symmetrical tolerance of the outer diameter / of cable sheath symmetrical tolerance of the outer diameter / of cable sheath pVC color of the wire insulation of data wires of cable sheath of the insulation of data wires of the insulation of data wires of the insulation of data wires of cable sheath of the insulation of data wires of the binding radius	cable designation	2YY (ST) CY 2x2x0,64/1,5-100 GN SF/UTP
at 10 MHz / maximum at 100 MHz / maximum by at 100 MHz / maximum by at 100 MHz / maximum by at 1 MHz 100 MHz continued and constalk per length at 1 MHz 100 MHz transfer impedance per length at 1 MHz 100 MHz by at 1 MHz 100 MHz transfer impedance per length / at 10 MHz transfer impedance per length / at 10 MHz toper resistance per length / maximum operating voltage at 1 MHz 100 MHz transfer impedance per length / maximum operating voltage by at 1 MHz 100 MHz transfer impedance per length / maximum operating voltage by at 1 MHz 100 MHz transfer impedance per length / maximum operating voltage by at 1 MHz 100 MHz transfer impedance per length / maximum operating voltage by at 1 MHz 100 MHz transfer impedance per length / maximum operating voltage by at 1 MHz 100 MHz transfer impedance per length / maximum operating voltage by at 1 MHz 100 MHz transfer impedance per length / maximum operating voltage by at 1 MHz 100 MHz transfer impedance per length / maximum operating voltage by at 1 MHz 100 MHz transfer impedance per length by at 1 MHz 100 MHz transfer impedance per length by at 1 MHz 100 MHz transfer impedance per length by at 1 MHz 100 MHz transfer impedance per length by at 1 MHz 100 MHz transfer impedance per length by at 1 MHz 100 MHz transfer impedance per length by at 1 MHz 100 MHz transfer impedance per length by at 1 MHz 100 MHz transfer impedance per length by at 1 MHz 100 MHz transfer impedance per length by at 1 MHz 100 MHz transfer impedance per length by at 1 MHz 100 MHz transfer impedance per length by at 1 MHz 100 MHz transfer impedance per length by at 1 MHz 100 MHz transfer impedance per length by at 1 MHz 100 MHz transfer impedance per length by at 1 MHz 100 MHz transfer impedance per length by at 1 MHz 100 MHz transfer impedance per length by at 1 MHz 100 MHz transfer inpedance per length by at 1 MHz 100 MHz transfer inpedance per length by at 1 MHz 100 MHz transfer inp	electrical data	
e at 100 MHz / maximum 0.195 dB/m	attenuation factor per length	
impedance	• at 10 MHz / maximum	0.052 dB/m
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 10 mΩ/m 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 Coverlapped aluminum-clad foli, 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 the wire insulation • of the wire insulation • of the inner sheath of the cable • of cable sheath PVC color • of cable sheath polyethylene (PE) vhite/yellow/blue/orange of cable sheath ponding radius	• at 100 MHz / maximum	0.195 dB/m
relative symmetrical tolerance • of the characteristic impedance at 1 MHz 100 MHz near-end crosstalk per length • et 11 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 % mechanical data number of electrical cores design of the shield Coverlapped aluminum-clad foil, sheathed in a braided screen of tin-plated copper wires type of electrical connection / FastConnect ver 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 inner sheath of the cable • of cable sheath cof the inner sheath of data wires • of cable sheath white/yellow/blue/orange • of cable sheath e of the insulation of data wires • of cable sheath processors white/yellow/blue/orange of cable sheath pending radius	impedance	
of the characteristic impedance at 1 MHz 100 MHz near-end crosstalk per length 1 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 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 versule in percent of AWG22 insulated conductor outer diameter • of inner conductor • of the wire insulation • of the sheath of the cable • of cable sheath material • of the wire insulation • of the inner sheath of the cable • of cable sheath of the inner sheath of data wires • of cable sheath end of the insulation of data wires • of cable sheath of the insulation of data wires • of cable sheath end of the insulation of data wires • of cable sheath 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 80 V 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 ves core diameter • of AWG22 insulated conductor outer diameter • of inner conductor of the wire insulation • of the wire insulation • of the wire insulation of the other and the cable • of cable sheath symmetrical tolerance of the outer diameter / of cable sheath material • of the wire insulation • of the wi	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 115 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 0.64 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 PVC • of cable sheath White/yellow/blue/orange • of cable sheath white/yellow/blue/orange 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 115 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 0.64 mm outer diameter • of inner conductor 0.64 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 material • of the wire insulation polyethylene (PE) • of the wire insulation polyethylene (PE) • of the inner sheath of the cable PVC • of cable sheath 9PVC color • of the insulation of data wires white/yellow/blue/orange • of cable sheath green	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 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 the wire insulation • of the wire insulation • of the wire insulation • of the inner sheath of the cable • of cable sheath PVC color • of the insulation of data wires • of cable sheath 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 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 material • of the wire insulation of the wire insulation polyethylene (PE) • of cable sheath of the inner sheath of the cable of the inner sheath of the cable of the wire insulation white/yellow/blue/orange of cable sheath pvc of cable sheath price of the inner sheath of the cable of the inner sheath of the cable of the inner sheath of the cable of cable sheath pvc votable sheath pvc of cable sheath pvc votable sheath pvc of cable sheath pvc of cable sheath pvc of cable sheath pvc of cable sheath preen	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 0.64 mm outer diameter • of inner conductor • of the wire insulation • of the wire heath 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 Outer diameter / of cable sheath material • of the wire insulation • of the inner sheath of the cable • of cable sheath PVC color • of the inner sheath of data wires • of cable sheath bending radius	loop resistance per length / maximum	115 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 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 inner sheath of the cable of cable sheath PVC color of the insulation of data wires 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 tinner conductor 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 of the wire insulation of the inner sheath of the cable of cable sheath PVC of the inner sheath of the cable of cable sheath PVC of cable sheath polyethylene (PE) of the inner sheath of data wires white/yellow/blue/orange of cable sheath 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 cable sheath PVC of cable sheath PVC color of the insulation of data wires of cable sheath process white/yellow/blue/orange green	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 the inner sheath of the cable of the wire insulation of the inner sheath of the cable of the inner sheath pVC of cable sheath PVC color of the insulation of data wires of cable sheath price white/yellow/blue/orange green	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 polyethylene (PE) of the inner sheath of the cable of cable sheath of the wire insulation of the inner sheath of the cable of the inner sheath of the cable of the inner sheath of the cable of the inner sheath white/yellow/blue/orange of cable sheath bending radius	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 of the wire insulation of the wire insulation of the wire insulation of the inner sheath of the cable of the inner sheath of the cable of the inner sheath of the cable of cable sheath PVC of cable sheath pvc of the insulation of data wires of cable sheath pvc color of the insulation of data wires of cable sheath preen	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 naterial 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 polyethylene (PE) of cable sheath pvc of cable sheath pvc 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 • 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 PVC color • of the insulation of data wires • of cable sheath bending radius	core 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 inner sheath of the cable of the inner sheath of the cable of cable sheath of cable sheath of cable sheath of the insulation of data wires of cable sheath green 	of AWG22 insulated conductor	0.64 mm
of the wire insulation of the inner sheath of the cable of cable sheath of cable sheath 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 PVC of the insulation of data wires of cable sheath polyethylene (PE) PVC white/yellow/blue/orange of cable sheath bending radius	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 green 	of inner conductor	0.64 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 PVC of cable sheath PVC color of the insulation of data wires of cable sheath polyethylene (PE) PVC white/yellow/blue/orange of cable sheath bending radius	 of the wire insulation 	1.5 mm
symmetrical tolerance of the outer diameter / of cable sheath material of the wire insulation polyethylene (PE) of the inner sheath of the cable pvc of cable sheath pvc color of the insulation of data wires white/yellow/blue/orange of cable sheath pending radius	 of the inner sheath of the cable 	3.9 mm
material of the wire insulation of the inner sheath of the cable of cable sheath PVC color of the insulation of data wires of cable sheath green bending radius	of cable sheath	6.5 mm
 of the wire insulation polyethylene (PE) of the inner sheath of the cable of cable sheath of the insulation of data wires of cable sheath white/yellow/blue/orange of cable sheath green 	symmetrical tolerance of the outer diameter / of cable sheath	0.2 mm
of the inner sheath of the cable of cable sheath PVC color of the insulation of data wires of cable sheath pvc white/yellow/blue/orange green bending radius	material	
 of cable sheath color of the insulation of data wires of cable sheath bending radius PVC white/yellow/blue/orange green 	 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 	PVC
 of the insulation of data wires of cable sheath bending radius white/yellow/blue/orange green	of cable sheath	PVC
of cable sheath bending radius green	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
tensile load / maximum	150 N
weight per length	61 kg/km
ambient conditions	
ambient temperature	
during operation	-40 +75 °C
during storage	-40 +75 °C
during transport	-40 +75 °C
during installation	-40 +60 °C
• note	Electrical properties measured at 20 °C, tests according to DIN VDE 0472
fire behavior	flame resistant according to IEC 60332-3-24 (Category C) and UL 1685 (CSA
	FT 4)
class of burning behaviour / according to EN 13501-6	Eca
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 / gene	eral
product feature	
• halogen-free	No
• silicon-free	Yes
wire length / for Industrial Ethernet	
• with 100BaseTX	100 m
standards, specifications, approvals	
UL/ETL listing / 300 V Rating	Yes; c(ETL)us / CMG / (ETL)us PLTC/ ITC / Sun Res
UL/ETL style / 600 V Rating	Yes; cRUus AWM 21694 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: according to IEC 81346-2:2019	WGB
further information / internet links	WOD
internet link	https://gupport.industry.gigmans.gov/achivu/achigu-/400700050
to website: Selection guide for cables and connectors to web pages selection guid TIA Selection Teel	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

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Approvals / Certificates

General Product Approval

Test Certificates

Manufacturer Declaration



Declaration of Conformity





Special Test Certificate

Environment

Industrial Communication

Confirmation



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