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 2 YY (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 0.052 dB/m impedance at 1 0MHz / maximum 0.195 dB/m impedance at 1 MHz 100 MHz relative symmetrical tolerance of the characteristic impedance at 1 MHz 100 MHz 0.5 dB/m 15 % near-end crosstalk per length of the characteristic impedance at 1 MHz 100 MHz 15 % near-end crosstalk per length of the characteristic impedance at 1 MHz 100 MHz 15 % near-end crosstalk per length of the strander impedance per length / at 10 MHz 10 op resistance per length / maximum 115 m\Omega\text{m} operating voltage or RMS value NVP value in percent 069 % mochanical data number of electrical cores 4 design of the shield copper wires type of electrical connection / FastConnect orore diameter of AWG22 insulated conductor 0.64 mm of the wire insulation of the mire sheath of the cable of cable sheath of the wire insulation of the inner sheath of the cable of cable sheath of the wire insulation of the insulation of data wires of cable sheath vwite/ellow/blue/orange of cable sheath end to design and the cable of cable sheath pyC	cable designation	2YY (ST) CY 2x2x0,64/1,5-100 GN SF/UTP
at 10 MHz / maximum at 100 MHz / maximum because at 1 MHz 100 MHz at 100 MHz at 1 MHz 100 MHz because at 1 MHz 100 MHz at 1 MHz 100 MHz because at 1 MHz 100 MHz at 1 MHz 100 MHz because at 1 M	electrical data	
• at 1 00 MHz / maximum 0.195 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 0.5 dB/m transfer impedance per length / at 10 MHz 10 mΩ/m loop resistance per length / maximum 115 mΩ/m operating voltage 80 V • RMS value 80 V NVP value in percent 69 % mechanical data V 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 or of AWG22 insulated conductor 0.64 mm outer diameter 0 of 4 mm of the wire insulation 1.5 mm of the wire insulation 0.65 mm of cable sheath 0.2 mm material 0 fthe wire insulation 0.2 mm of the wire insulation of data wires PVC of cable sheath PVC <t< td=""><td>attenuation factor per length</td><td></td></t<>	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 / maximum operating voltage • RMS value NVP value in percent morber of electrical cores design of the shield Overlapped aluminum-clad foil, sheathed in a braided screen of tin-plated copper wires very 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 wire insulation • of the wire insulation • of the inner sheath of the cable • of cable sheath polycethylene (PE) PVC color • of the inner sheath of the cable • of cable sheath pvC color • of the insulation of data wires • of cable sheath percent white/yellowblue/orange green pending radius	• 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 transfer impedance per length / at 10 MHz loop resistance per length / maximum operating voltage • RMS value NVP value in percent machanical 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 version of the wire insulation • of AWG22 insulated conductor of the wire insulation • of the inner sheath of the cable • of cable sheath and the sheath of the wire insulation • of the inner sheath of the cable • of cable sheath polyethylene (PE) • of cable sheath bending radius	• at 100 MHz / maximum	0.195 dB/m
relative symmetrical tolerance	impedance	
ear-end crosstalk per length ● at 1 MHz 100 MHz transfer impedance per length / at 10 MHz loop resistance per length / at 10 MHz 115 mΩ/m operating voltage ● RMS value NVP value in percent mechanical data number of electrical cores design of the shield voreilameter ● of AWG22 insulated conductor ● of the wire insulation ● of the wire insulation symmetrical tolerance of the cable ● of cable sheath material ● of cable sheath of the inner sheath of the cable ● of cable sheath bending radius 15 % 16 mΩ/m 16 mm 17 mm 18 mm 18 mm 19 mm 19 mm 10 mm 20 mm	• at 1 MHz 100 MHz	100 Ω
near-end crosstalk per length	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 • 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 wire insulation 6.5 mm • of cable sheath 6.5 mm symmetrical tolerance of the outer diameter / of cable sheath 0.2 mm material • of the wire insulation polyethylene (PE) • of cable sheath PVC • of cable sheath PVC • of cable sheath white/yellow/blue/orange • of cable sheath white/yellow/blue/orange • of cable shea	• 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 0.2 mm material • of the wire insulation polyethylene (PE) • of the inner sheath of the cable PVC • of cable sheath PVC • of the inner sheath of data wires • of cable sheath percent white/yellow/blue/orange • of cable sheath green • of the insulation of data wires • of cable sheath green	near-end crosstalk per length	
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 voper wires type of electrical connection / FastConnect core diameter • of AWG22 insulated conductor outer diameter • of inner conductor • of the wire insulation • of the wire insulation polyethylene (PE) • of able 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 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 wire insulation • of the inner sheath of the cable • of cable sheath white/yellow/blue/orange • of cable sheath bending radius	• at 1 MHz 100 MHz	0.5 dB/m
operating voltage RMS value RMS value RMS value Rechanical 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 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 wire insulation of cable sheath final polyethylene (PE) of the inner sheath of the cable of cable sheath PVC color of the inner sheath of the inner sheath of the inner sheath of the inner sheath of the cable of cable sheath PVC color of the inner sheath of the inner sheath of the cable of cable sheath pvc of cable sheath pvc white/yellow/blue/orange green	transfer impedance per length / at 10 MHz	10 mΩ/m
PRMS 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	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 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 cable sheath PVC 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 type of electrical connection / FastConnect of AWG22 insulated conductor of inner 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 inner sheath of the cable of cable sheath PVC color of the insulation of data wires 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 Yes core diameter of AWG22 insulated conductor outer diameter of inner conductor of the wire insulation of the wire 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) PVC color of the insulation of data wires of cable sheath 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 of AWG22 insulated conductor of AWG22 insulated conductor of inner 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 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 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 of the wire insulation polyethylene (PE) of the inner sheath of the cable of cable sheath white/yellow/blue/orange of cable sheath bending radius	number of electrical cores	4
core diameter outer diameter 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) of the inner sheath of the cable of cable sheath PVC of cable sheath pvc of the insulation of data wires 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 of cable sheath of the wire insulation 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 PVC of cable sheath of the insulation of data wires of the insulation of data wires of cable sheath polyethylene (PE) 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 the outer diameter / of cable sheath symmetrical tolerance of the outer diameter / of cable sheath 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	
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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 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	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 PVC color of the insulation of data wires of cable sheath bending radius 3.9 mm 6.5 mm 9.2 mm PVC PVC PVC white/yellow/blue/orange 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 color of the insulation of data wires of cable sheath bending radius 6.5 mm 6.2 mm PVC PVC PVC PVC white/yellow/blue/orange green	 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 PVC color of the insulation of data wires of cable sheath bending 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 volor of the insulation of data wires of cable sheath pvc white/yellow/blue/orange of cable sheath bending radius	of cable sheath	6.5 mm
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 pvc white/yellow/blue/orange of cable sheath bending radius	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 bending radius PVC white/yellow/blue/orange green	material	
of cable sheath color of the insulation of data wires of cable sheath bending radius PVC white/yellow/blue/orange green prediction of data wires 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 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 tensile load / maximum	
terislie 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 / gen	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	Ÿ.
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	WO
according to IEC 81346-2	WG
according to IEC 81346-2:2019 further information / informations	WGB
further information / internet links	
internet link	https://gumpart.industry.ciangra//
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 to web page: SigDettel	https://www.siemens.com/tstcloud
to web page: SiePortal to website: Image detabage	https://sieportal.siemens.com/
to website: Image database As website: CAy Dayreland Manager	https://www.automation.siemens.com/bilddb
to website: CAx-Download-Manager to website: Industry Online Support	https://www.siemens.com/cax
to website: Industry Online Support	https://support.industry.siemens.com
security information	Clamana provides and deleterate that the state of the sta
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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