## **SIEMENS**

Data sheet 6XV1870-4BN20

## product type designation

product description

## IE TP Cord RJ45/RJ45, 4x2

Patch cable, preferred length, preassembled with two RJ45 connectors (10/100/1000/10000MB)

Industrial Ethernet TP Cord RJ45/RJ45, CAT 6A, TP cable 4x2(blue), preassembled with 2 RJ45 connectors, length 20 m.



suitability for use	Easy connection of terminal devices to the IE FC cabling system
cable designation	LI 02YSCH 4x2x0,15 PIMF GN FRNC
wire length	20 m
electrical data	
number of electrical connections	2
attenuation factor per length	
• at 10 MHz / maximum	0.086 dB/m
• at 100 MHz / maximum	0.28 dB/m
• at 300 MHz / maximum	0.485 dB/m
• at 600 MHz / maximum	0.675 dB/m
impedance	
● at 1 MHz 100 MHz	100 Ω
● at 10 MHz 600 MHz	100 Ω
relative symmetrical tolerance	
• of the characteristic impedance at 1 MHz 100 MHz	5 %
coupling loss / at 30 MHz 100 MHz / minimum	85 dB
transfer impedance per length / at 10 MHz	10 mΩ/m
loop resistance per length / maximum	290 mΩ/m
operating voltage	
RMS value	80 V
NVP value in percent	76 %
mechanical data	
number of electrical cores	8
design of the shield	Overlapped aluminum-clad foil, sheathed in a braided screen of tin-plated copper wires
core diameter	
of AWG26 insulated conductor	0.5 mm
outer diameter	
<ul> <li>of inner conductor</li> </ul>	0.5 mm
<ul> <li>of the wire insulation</li> </ul>	1 mm
of cable sheath	6.2 mm
symmetrical tolerance of the outer diameter / of cable sheath	0.3 mm
material	
<ul> <li>of the wire insulation</li> </ul>	polyethylene (PE)
of cable sheath	FRNC
color	
<ul> <li>of the insulation of data wires</li> </ul>	white/blue, white/orange, white/green, white/brown
of cable sheath	blue

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bending radius	
<ul><li>with single bend / minimum permissible</li></ul>	31 mm
with multiple bends / minimum permissible	62 mm
weight per length	46 kg/km
plug	
connector type	RJ45
type of plug interlock	latched
design of plug-in connection	RJ45-180
ambient conditions	
ambient temperature	
<ul> <li>during operation</li> </ul>	-25 +80 °C
during storage	-25 +80 °C
during transport	-25 +80 °C
<ul> <li>during installation</li> </ul>	-25 +80 °C
• note	In fixed installation -40 °C to 80 °C
fire behavior	flame resistant according to IEC 60332-1-2, smoke density according to IEC 61034
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
radiological resistance / to UV radiation	not resistant
protection class IP	IP20
product features, product functions, product components / get	neral
product feature	
halogen-free	Yes
• silicon-free	Yes
test voltage	
• at AC / core-to-core	500 V
at AC / core shield	1500 V
standards, specifications, approvals	
UL/ETL listing / 300 V Rating	No
UL/ETL style / 600 V Rating	Yes
certificate of suitability	ISO/IEC 11801-1, IEC 61035
EAC approval	Yes
• UL approval	Yes
RoHS conformity	Yes
standard for structured cabling	Cat6A
Marine classification association	No
American Bureau of Shipping Europe Ltd. (ABS)     French marine electrification excitety (PV)	No No
French marine classification society (BV)     Det Norsko Veritas (DNV)	No No
Det Norske Veritas (DNV)     Germanische Lloyd (GL)	No No
<ul><li>Germanische Lloyd (GL)</li><li>Lloyds Register of Shipping (LRS)</li></ul>	No No
<ul> <li>Lloyds Register of Snipping (LRS)</li> <li>Nippon Kaiji Kyokai (NK)</li> </ul>	No
Nippon Kaiji Kyokai (NK)     Polski Rejestr Statkow (PRS)	No
reference code	INO
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 website: estection galde for eables and commercial     to web page: selection aid TIA Selection Tool	https://www.siemens.com/tstcloud
to web page: Selection and Thy Selection Tool     to web page: SiePortal	https://sieportal.siemens.com/
to website: Image database	https://www.automation.siemens.com/bilddb
to website: Mrage database     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** 

Manufacturer Declaration



Declaration of Conformity

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