

### product type designation

product description

### IE Hybrid Cable 2x2 + 4x0.34

Hybrid cable (data and energy wires), product sold by meter, unassembled

Industrial Ethernet Hybrid Cable 2x2+4x 0.34, flexible Cable, 4x CU CAT5, shielded (0.75 mm) and 4x CU (0.34 mm<sup>2</sup>) for IE FC modular outlet with Power insert and IP67 hybrid plug-in connector Sold by the meter max. delivery unit 1000 m, minimum order quantity 20 m.



Technical Product Detail Page

<https://l.siemens.com/1P6XV1870-2J>

suitability for use

Ethernet hybrid cable for transfer of data and power

cable designation

2YH (ST) C 2x2x0.75/1.5LI LIH H 2x2x0.34/1.6GN FRNC

### electrical data

attenuation factor per length

- at 10 MHz / maximum
- at 100 MHz / maximum

0.075 dB/m  
0.26 dB/m

impedance

- at 1 MHz ... 100 MHz

100 Ω

relative symmetrical tolerance

- of the characteristic impedance at 1 MHz ... 100 MHz

15 %

near-end crosstalk per length / at 1 MHz ... 100 MHz

0.353 dB/m

transfer impedance per length / at 10 MHz

10 mΩ/m

loop resistance per length / maximum

120 Ω/km

insulation resistance coefficient

500 GΩ·m

operating voltage / maximum

80 V

operating voltage / RMS value

100 V

conductor cross section / of the power line

0.34 mm<sup>2</sup>

continuous current / of the power lines

5 A

### mechanical data

design of the shield

Overlapped aluminum-clad foil, sheathed in a braided screen of tin-plated copper wires

number of electrical cores

8

type of electrical connection / FastConnect

No

core diameter / of AWG22 insulated conductor

0.76 mm

outer diameter

- of inner conductor
- of the wire insulation
- of the inner sheath of the cable
- of cable sheath

0.76 mm  
1.5 mm  
3.9 mm  
8.5 mm

symmetrical tolerance of the outer diameter / of cable sheath

0.4 mm

material

- of the wire insulation
- of the inner sheath of the cable
- of cable sheath

polyethylene (PE)  
FRNC  
FRNC

color

- of the insulation of data wires

white / yellow / blue / orange

<ul style="list-style-type: none"> <li>• of the power line insulation</li> <li>• of cable sheath</li> </ul>	Black/brown green
bending radius	
<ul style="list-style-type: none"> <li>• with single bend / minimum permissible</li> <li>• with multiple bends / minimum permissible</li> </ul>	42.5 mm 85 mm
tensile load / maximum	260 N
weight per length	105 kg/km
<b>ambient conditions</b>	
ambient temperature	
<ul style="list-style-type: none"> <li>• during operation</li> <li>• during storage</li> <li>• during transport</li> <li>• during installation</li> <li>• note</li> </ul>	-25 ... +70 °C -25 ... +70 °C -25 ... +70 °C -25 ... +70 °C Electrical properties measured at 20 Cel, verification according to DIN 47250 part 4 respectively DIN VDE 0490
fire behavior	flame-retardant according to IEC 60332-3-24 (Category C)
class of burning behaviour / according to EN 13501-6	Eca
chemical resistance	
<ul style="list-style-type: none"> <li>• to mineral oil</li> <li>• to grease</li> <li>• to water</li> </ul>	Conditional resistance Conditional resistance Conditional resistance
radiological resistance / to UV radiation	resistant
<b>product features, product functions, product components / general</b>	
product feature	
<ul style="list-style-type: none"> <li>• halogen-free</li> <li>• silicon-free</li> </ul>	Yes Yes
wire length / with 100BaseTX / for Industrial Ethernet	100 m
<b>standards, specifications, approvals</b>	
UL/ETL listing / 300 V Rating	Yes; CMG / PLTC / SunRes
UL/ETL style / 600 V Rating	Yes
certificate of suitability	
<ul style="list-style-type: none"> <li>• EAC approval</li> <li>• RoHS conformity</li> </ul>	Yes Yes
standard for structured cabling	Cat 5e (data cores), AWG 22 (power cores)
<b>further information / internet links</b>	
internet link	
<ul style="list-style-type: none"> <li>• to website: Selection guide for cables and connectors</li> <li>• to web page: selection aid TIA Selection Tool</li> <li>• to website: Industrial communication</li> <li>• to web page: SiePortal</li> <li>• to website: Image database</li> <li>• to website: CAx-Download-Manager</li> <li>• to website: Industry Online Support</li> </ul>	<a href="https://support.industry.siemens.com/cs/ww/en/view/109766358">https://support.industry.siemens.com/cs/ww/en/view/109766358</a> <a href="https://www.siemens.com/tstcloud">https://www.siemens.com/tstcloud</a> <a href="https://www.siemens.com/simatic-net">https://www.siemens.com/simatic-net</a> <a href="https://sieportal.siemens.com/">https://sieportal.siemens.com/</a> <a href="https://www.automation.siemens.com/bilddb">https://www.automation.siemens.com/bilddb</a> <a href="https://www.siemens.com/cax">https://www.siemens.com/cax</a> <a href="https://support.industry.siemens.com">https://support.industry.siemens.com</a>
<b>security information</b>	
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 <a href="http://www.siemens.com/cybersecurity-industry">www.siemens.com/cybersecurity-industry</a> . 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 <a href="https://www.siemens.com/cert">https://www.siemens.com/cert</a> . (V4.7)

Approvals / Certificates

General Product Approval

[Manufacturer Declaration](#)



[Declaration of Conformity](#)



[China RoHS](#)

General Product Approval

other

Environment

[Fire safety / Physical security](#)

[Miscellaneous](#)

[Environmental Confirmations](#)

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