

### product type designation

product description

### Foundation Fieldbus Cable

Bus cable (2-core), sold by the meter, unassembled

Foundation Fieldbus Cable; bus cable for IEC 61158-2; sheath color yellow for non-Ex applications; 2-core shielded; stranded drain wire sold by the meter; delivery unit max. 1000 m minimum order quantity 20 m.



Technical Product Detail Page

<https://l.siemens.com/1P6XV1830-5HH10>

suitability for use

For use in fieldbus systems according to IEC 61158-2 (e.g. Foundation Fieldbus), suitable for non-Ex applications

cable designation

2X(ST)CY 1X2X1.1/2.85-100 LI GE FR OE

wire length

sold by the meter

### electrical data

attenuation factor per length

- at 38.4 kHz / maximum

0.003 dB/m

impedance

- rated value
- at 31.25 kHz
- at 38.4 kHz

100 Ω  
100 Ω  
100 Ω

relative symmetrical tolerance

- of the characteristic impedance at 31.25 kHz
- of the characteristic impedance at 38.4 kHz

20 %  
20 %

loop resistance per length / maximum

46 mΩ/m

shield resistance per length / maximum

10 Ω/km

capacity per length / at 1 kHz

65 pF/m

inductance per length

0.75 μH/m

operating voltage

- RMS value

300 V

### mechanical data

number of electrical cores

2

design of the shield

Overlapped aluminum-clad foil, sheathed in a braided shield of tin-plated copper wires with shield wire

type of electrical connection / FastConnect

No

outer diameter

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

1.17 mm  
2.85 mm  
6.4 mm  
8.5 mm

symmetrical tolerance of the outer diameter / of cable sheath

0.3 mm

material

- of the wire insulation
- of cable sheath

polyethylene (PE)  
PVC

color

- of the insulation of data wires
- of cable sheath

blue/brown  
yellow

bending radius	
<ul style="list-style-type: none"> <li>with single bend / minimum permissible</li> <li>with multiple bends / minimum permissible</li> </ul>	<p>34 mm</p> <p>68 mm</p>
tensile load / maximum	100 N
weight per length	98 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> </ul>	<p>-40 ... +105 °C</p> <p>-40 ... +105 °C</p> <p>-40 ... +105 °C</p> <p>-40 ... +105 °C</p>
ambient condition / for operation	Transfer rate of cable: 31.25 Kbit/s
fire behavior	flame resistant according to IEC 60332-1-2
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>	<p>conditional resistance</p> <p>Conditional resistance</p> <p>conditional resistance</p>
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>	<p>No</p> <p>Yes</p>
<b>standards, specifications, approvals</b>	
UL/ETL listing / 300 V Rating	Yes; c(UL)us, CMG / PLTC / Sun Res
UL/ETL style / 600 V Rating	No
certificate of suitability	
<ul style="list-style-type: none"> <li>EAC approval</li> <li>RoHS conformity</li> </ul>	<p>Yes</p> <p>Yes</p>
Marine classification association	
<ul style="list-style-type: none"> <li>American Bureau of Shipping Europe Ltd. (ABS)</li> <li>French marine classification society (BV)</li> <li>Det Norske Veritas (DNV)</li> <li>Germanische Lloyd (GL)</li> <li>Lloyds Register of Shipping (LRS)</li> <li>Nippon Kaiji Kyokai (NK)</li> <li>Polski Rejestr Statkow (PRS)</li> </ul>	<p>No</p> <p>No</p> <p>No</p> <p>No</p> <p>No</p> <p>No</p> <p>No</p>
<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 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>	<p><a href="https://support.industry.siemens.com/cs/ww/en/view/109766358">https://support.industry.siemens.com/cs/ww/en/view/109766358</a></p> <p><a href="https://www.siemens.com/tstcloud">https://www.siemens.com/tstcloud</a></p> <p><a href="https://sieportal.siemens.com/">https://sieportal.siemens.com/</a></p> <p><a href="https://www.automation.siemens.com/bilddb">https://www.automation.siemens.com/bilddb</a></p> <p><a href="https://www.siemens.com/cax">https://www.siemens.com/cax</a></p> <p><a href="https://support.industry.siemens.com">https://support.industry.siemens.com</a></p>
<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.

Approvals / Certificates

General Product Approval

[Manufacturer Declaration](#)



[Declaration of Conformity](#)



[China RoHS](#)

General Product Approval

Test Certificates

Environment

[Fire safety / Physical security](#)



[Special Test Certificate](#)

[Environmental Confirmations](#)

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