

## Data sheet

6XV1871-5TH30

product type designation

product description

IE Connecting Cable M12-180/IE FC RJ45-145

Flexible plug-in cable (4-core), preferred length, preassembled with one 4-pole M12 connector (D-coded) and one IE FC RJ45 plug 145

IE connecting cable M12-180/IE FC RJ45 Plug-145; IE FC Trailing cable GP pre-assembled with M12 connector (D-coded) and IE FC RJ45 plug length 3.0 m.



Technical Product Detail Page

<https://i.siemens.com/1P6XV1871-5TH30>

suitability for use

For connecting Industrial Ethernet stations (e.g. SIMATIC ET200pro, SCALANCE X208PRO and SIMOTION)

cable designation

2YY (ST) CY 2x2x0,75/1,5-100 LI GN

wire length

3 m

**electrical data**

number of electrical connections

2

attenuation factor per length

0.063 dB/m

• at 10 MHz / maximum

0.213 dB/m

• at 100 MHz / maximum

impedance

100 Ω

• at 1 MHz ... 100 MHz

relative symmetrical tolerance

5 %

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

near-end crosstalk per length

0.5 dB/m

• at 1 MHz ... 100 MHz

transfer impedance per length / at 10 MHz

20 mΩ/m

loop resistance per length / maximum

120 mΩ/m

operating voltage

80 V

• RMS value

NVP value in percent

66 %

**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

core diameter

0.75 mm

• of AWG22 insulated conductor

outer diameter

0.75 mm

• of inner conductor

1.5 mm

• of the wire insulation

3.9 mm

• of the inner sheath of the cable

6.5 mm

• of cable sheath

symmetrical tolerance of the outer diameter / of cable sheath

0.2 mm

material

polyethylene (PE)

• of the wire insulation

PVC

• of the inner sheath of the cable

PVC

• of cable sheath

color	• of the insulation of data wires • of cable sheath	white/yellow/blue/orange green
bending radius	• with single bend / minimum permissible • with multiple bends / minimum permissible • with continuous bending	32.5 mm 49 mm 100 mm
number of bending cycles		3000000; Drag chain suitable for 3 million bending cycles at a bending radius of 100 mm, a speed of 4 m/s and an acceleration of 4 m/s <sup>2</sup>
tensile load / maximum		150 N
weight per length		68 kg/km
<b>ambient conditions</b>		
ambient temperature	• during operation • during storage • during transport • during installation	-25 ... +75 °C -25 ... +75 °C -25 ... +75 °C -10 ... +60 °C
fire behavior		flame resistant according to UL 1685 (CSA FT 4)
chemical resistance	• to mineral oil • to grease • to water	conditional resistance Conditional resistance conditional resistance
radiological resistance / to UV radiation		resistant
<b>product features, product functions, product components / general</b>		
product feature	• halogen-free • PoE capability • PoE+ capability • silicon-free	No Yes Yes Yes
<b>standards, specifications, approvals</b>		
UL/ETL listing / 300 V Rating		Yes; c(ETL)us, CMG FT4 / (ETL)us PLTC / Sun Res / OIL RES
UL/ETL style / 600 V Rating		Yes; cRUs AWM 21694 AWM I A/B 60°C 600V FT2
certificate of suitability	• EAC approval • CE marking • RoHS conformity	Yes Yes Yes
standard for structured cabling		Cat5e
Marine classification association	• American Bureau of Shipping Europe Ltd. (ABS) • French marine classification society (BV) • Det Norske Veritas (DNV) • Germanische Lloyd (GL) • Lloyds Register of Shipping (LRS) • Nippon Kaiji Kyokai (NK) • Polski Rejestr Statków (PRS)	No No No No No No No
<b>further information / internet links</b>		
internet link	• to website: Selection guide for cables and connectors • to web page: selection aid TIA Selection Tool • to web page: SiePortal • to website: Image database • to website: CAx-Download-Manager • to website: Industry Online Support	<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://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

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## Approvals / Certificates

### General Product Approval



[Declaration of Conformity](#)



[China RoHS](#)

[Manufacturer Declaration](#)

## Industrial Communication

[PROFINET](#)

last modified:

12/20/2025