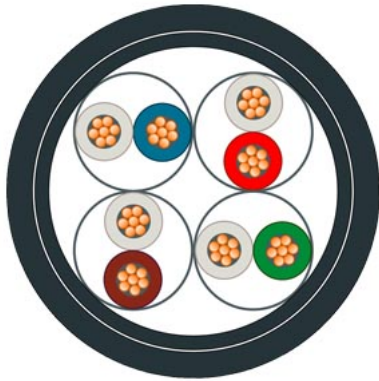


### product type designation

product description



### IE TP Train Cable 4x2 (AWG24/7)

Flexible, shielded bus cable with tinned copper leads (8-core) for rail applications, sold by the meter, unassembled

IE TP TRAIN Cable 4x 2; CAT7 TP installation cable for Rail applications for connection to FC M12 Plug PRO 4x 2, Railway-certified, 8-core, shielded, sold by the meter, max. delivery unit 1000 m, minimum order quantity 20 m.

Technical Product Detail Page

<https://i.siemens.com/1P6XV1878-2T>

suitability for use

For laying in rail vehicles and buses

cable designation

SF/FTP

wire length

sold by the meter

### electrical data

attenuation factor per length

• at 10 MHz / maximum	0.063 dB/m
• at 100 MHz / maximum	0.207 dB/m
• at 250 MHz / maximum	0.343 dB/m

impedance

• at 1 MHz ... 100 MHz	100 Ω
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coupling loss / at 30 MHz ... 100 MHz / minimum

60 dB

transfer impedance per length / at 10 MHz

5 mΩ/m

loop resistance per length / maximum

124 mΩ/m

insulation resistance coefficient

5000 GΩ·m

operating voltage

• RMS value	125 V
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### mechanical data

number of electrical cores

8

design of the shield

SF/FTP, overlapped aluminum-clad foil, sheathed in a protective braided shield of tinned copper wires with additional pair shielding

type of electrical connection / FastConnect

No

core diameter

• of AWG24 insulated conductor	0.51 mm
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outer diameter

• of the wire insulation	1.45 mm
• of cable sheath	8.1 mm

symmetrical tolerance of the outer diameter / of cable sheath

0.4 mm

material

• of the wire insulation	polyethylene (PE)
• of cable sheath	Elastomer meshed electron beam

color

• of the insulation of data wires	white/blue, white/green, white/brown, white/orange
• of cable sheath	Black

bending radius

• with single bend / minimum permissible	53 mm
• with multiple bends / minimum permissible	53 mm

tensile load / maximum	60 N
weight per length	79 kg/km
<b>ambient conditions</b>	
ambient temperature	
• during operation	-40 ... +80 °C
• during storage	-40 ... +80 °C
• during transport	-40 ... +80 °C
• during installation	-20 ... +60 °C
fire behavior	BS 6853, DIN5510-2 Brandschutzstufe 1-4, prEN 45545-2 Hazard Level HL 1-HL 3, EN 50306-4, NF F 16-101, NFPA130
chemical resistance	
• to mineral oil	EN 50306-4 (72h/100 °C, IRM 902, 168h/70 °C, IRM 903)
• to grease	Conditional resistance
• to water	conditional resistance
radiological resistance / to UV radiation	resistant
<b>product features, product functions, product components / general</b>	
product feature	
• halogen-free	Yes
• PoE capability	Yes
• PoE+ capability	Yes
• PoE++ capability	Yes
• silicon-free	Yes
wire length / for Industrial Ethernet	
• with 100BaseTX	100 m
• with 1000BaseT	100 m
<b>standards, specifications, approvals</b>	
UL/ETL listing / 300 V Rating	No
UL/ETL style / 600 V Rating	No
certificate of suitability	
• CE marking	Yes
• RoHS conformity	Yes
standard for structured cabling	Cat7
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
<b>further information / internet links</b>	
internet link	
• to website: Selection guide for cables and connectors	<a href="https://support.industry.siemens.com/cs/ww/en/view/109766358">https://support.industry.siemens.com/cs/ww/en/view/109766358</a>
• to web page: selection aid TIA Selection Tool	<a href="https://www.siemens.com/tstcloud">https://www.siemens.com/tstcloud</a>
• to web page: SiePortal	<a href="https://sieportal.siemens.com/">https://sieportal.siemens.com/</a>
• to website: Image database	<a href="https://www.automation.siemens.com/bilddb">https://www.automation.siemens.com/bilddb</a>
• to website: CAX-Download-Manager	<a href="https://www.siemens.com/cax">https://www.siemens.com/cax</a>
• to website: Industry Online Support	<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 <https://www.siemens.com/cert>. (V4.7)

## Approvals / Certificates

### General Product Approval



[Declaration of Con-  
formity](#)



[Manufacturer Declara-  
tion](#)

[China RoHS](#)

### Environment

[Environmental Con-  
firmations](#)

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