

Product type designation

Product description

IE TP Train Cable 2x2 (Type C, AWG22/7)

Flexible bus cable with tinned copper leads (4-core) for rail applications, sold by the meter, unassembled
IE TP TRAIN CABLE 2X2; CAT5 TP INSTALLATION CABLE F. TRAIN APPLICATIONS, FOR CONNECTION TO FC RJ45 PLUG 2X2, FC M12 PLUG PRO 2X2; TRAIN CERTIFIED, 4 WIRE, SHIELDED, BY THE METER, MAX. CONSIGNMENT 1000 M, MIN. ORDER QUANTITY 20 M



Suitability for use

For laying in rail vehicles and buses

Electrical data

Damping ratio per length	
<ul style="list-style-type: none"> at 10 MHz / maximum at 100 MHz / maximum 	<p>0.053 dB/m</p> <p>0.188 dB/m</p>
Impedance	
<ul style="list-style-type: none"> at 1 MHz ... 100 MHz 	100 Ω
Relative symmetrical tolerance	
<ul style="list-style-type: none"> of the characteristic impedance at 1 MHz ... 100 MHz 	5 %
Near-end crosstalk per length	
<ul style="list-style-type: none"> at 1 MHz ... 100 MHz 	0.5 dB/m
Transfer impedance per length / at 10 MHz	8 mΩ/m
Loop resistance per length / maximum	124 mΩ/m
Operating voltage	
<ul style="list-style-type: none"> RMS value 	125 V

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
Type of electrical connection / FastConnect	No
Core diameter	
<ul style="list-style-type: none"> of AWG22 core 	0.75 mm

Outer diameter	
<ul style="list-style-type: none"> • of inner conductor • of the wire insulation • of cable sheath 	<p>0.75 mm</p> <p>1.5 mm</p> <p>6.6 mm</p>
Symmetrical tolerance of the outer diameter / of cable sheath	0.2 mm
Material	
<ul style="list-style-type: none"> • of the wire insulation • of cable sheath 	<p>PE</p> <p>Elastomer meshed electron beam</p>
Color	
<ul style="list-style-type: none"> • of the insulation of data wires • of cable sheath 	<p>white / yellow / blue / orange</p> <p>Black</p>
Bending radius	
<ul style="list-style-type: none"> • with single bend / minimum permissible • with multiple bends / minimum permissible 	<p>40 mm</p> <p>40 mm</p>
Tensile load / maximum	150 N
Weight per length	71 kg/km

Permitted ambient conditions

Ambient temperature	
<ul style="list-style-type: none"> • during operation • during storage • during transport • during installation • Note 	<p>-40 ... +80 °C</p> <p>-40 ... +80 °C</p> <p>-40 ... +80 °C</p> <p>-20 ... +60 °C</p> <p>for a short duration in case of short-circuit fault 160°C</p>
Ambient condition / for operation	Electrical characteristics measured at 20 °C, tests according to EN50288-2-1
Burning behavior	BS6853, DIN5510-2 Brandschutzstufe 1-4, prEN45545-2 Hazard Level HL1-HL3, EN50306-4, NF F 16-101, NFPA130
Chemical resistance	
<ul style="list-style-type: none"> • to mineral oil • to grease • to water 	<p>EN 50306-4 (72h/100 °C, IRM 902, 168h/70 °C, IRM 903)</p> <p>Conditional resistance</p> <p>Conditional resistance</p>
Radiological resistance / to UV radiation	resistant

Product properties, functions, components / general

Product property	
<ul style="list-style-type: none"> • halogen-free • silicon-free 	<p>Yes</p> <p>Yes</p>
Cable length / for Industrial Ethernet	
<ul style="list-style-type: none"> • with 100BaseTX 	100 m

Standards, specifications, approvals

Certificate of suitability	
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• CE marking	Yes
• RoHS conformity	Yes
Standard for structured cabling	Cat5
Marine classification association	
• American Bureau of Shipping Europe Ltd. (ABS)	No
• Bureau Veritas (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

Further Information / Internet Links

Internet-Link	
• to website: Selector SIMATIC NET SELECTION TOOL	http://www.siemens.com/snst
• to website: Industrial communication	http://www.siemens.com/simatic-net
• to website: Industry Mall	https://mall.industry.siemens.com
• to website: Information and Download Center	http://www.siemens.com/automation/net/catalog
• to website: Image database	http://automation.siemens.com/bilddb
• to website: CAx Download Manager	http://www.siemens.com/cax
• to website: Industry Online Support	https://support.industry.siemens.com

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