

### product type designation

product description

### SIENOPYR FR ship cable

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

PROFIBUS marine cable SIENOPYR, copper cable for laying on ships and OFFSHORE units, Sold by the meter Delivery unit max. 1000 m/ min. 20 m.



### suitability for use

Cable for fixed installation on ships and offshore facilities in all enclosed spaces and on open decks. This cable cannot be used for permanent installation in water.

### cable designation

M-02Y (ST) CH X 1 x 2 x 0,35 100 V

### electrical data

#### attenuation factor per length

• at 9.6 kHz / maximum	0.003 dB/m
• at 38.4 kHz / maximum	0.005 dB/m
• at 4 MHz / maximum	0.022 dB/m
• at 16 MHz / maximum	0.045 dB/m

#### impedance

• rated value	150 Ω
• at 9.6 kHz	250 Ω
• at 38.4 kHz	185 Ω
• at 3 MHz ... 20 MHz	150 Ω

#### relative symmetrical tolerance

• of the characteristic impedance at 9.6 kHz	10 %
• of the characteristic impedance at 38.4 kHz	10 %
• of the characteristic impedance at 3 MHz ... 20 MHz	10 %

#### loop resistance per length / maximum

110 mΩ/m

#### insulation resistance coefficient

16000 GΩ·m

#### operating voltage

• RMS value	100 V
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### mechanical data

#### number of electrical cores

2

#### design of the shield

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

#### type of electrical connection / FastConnect

No

#### outer diameter

• of inner conductor	0.67 mm
• of the inner sheath of the cable	8 mm
• of cable sheath	9.8 mm
• of cable sheath / note	Outer diameter > 8 mm: Bus connectors can only be connected after removing the outer cover

#### symmetrical tolerance of the outer diameter / of cable sheath

0.5 mm

#### material

• of the wire insulation	polyethylene (PE)
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<ul style="list-style-type: none"> <li>of the inner sheath of the cable</li> <li>of cable sheath</li> </ul>	Halogen-free polymer (HM4) Halogen-free, cross-linked polymer
color	
<ul style="list-style-type: none"> <li>of the insulation of data wires</li> <li>of cable sheath</li> </ul>	red/green Black
bending radius	
<ul style="list-style-type: none"> <li>with single bend / minimum permissible</li> <li>with multiple bends / minimum permissible</li> </ul>	98 mm 196 mm
tensile load / maximum	100 N
weight per length	110 kg/km

#### ambient conditions

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>	-35 ... +80 °C -35 ... +80 °C -35 ... +80 °C -15 ... +80 °C Electrical properties measured at 20 °C, tests according to DIN 47250 part 4 respectively DIN VDE 0472
ambient condition / for operation	At ambient temperatures below -15 °C, the cable must not be subjected to any movements other than the normal vibration levels encountered on board ship
fire behavior	flame resistant according to IEC 60332-3-24, IEC 607542, IEC 61031, DIN VDE 0472 Part 805 Prüffart B
chemical resistance	
<ul style="list-style-type: none"> <li>to mineral oil</li> <li>to grease</li> <li>to water</li> </ul>	resistant to diesel fuel according to DIN VDE 51601, ASTM oil No. 2 according to DIN 53521, oil, NATOCode 0178, BWTL 91500031/2 according to VG 95214 Part 4, hydraulic fluid, NATOCode H515, BWTL 91500020 according to VG 95214 Part 4, cold cleaning solvent, BW-TL 68500017 according to VG 95214 Part 4, deionized water according to VG 95214 Part 4, deionized water with 3.5% NaCl resistant conditional resistance
radiological resistance / to UV radiation	resistant

#### product features, product functions, product components / general

product feature	
<ul style="list-style-type: none"> <li>halogen-free</li> <li>silicon-free</li> </ul>	Yes Yes

#### standards, specifications, approvals

UL/ETL listing / 300 V Rating	No
UL/ETL style / 600 V Rating	No
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>	No No Yes Yes Yes No No
reference code	
<ul style="list-style-type: none"> <li>according to IEC 81346-2</li> <li>according to IEC 81346-2:2019</li> </ul>	WG WGB

#### further information / internet-Links

Internet-Link	
<ul style="list-style-type: none"> <li>to web page: selection aid TIA Selection Tool</li> <li>to website: Industrial communication</li> <li>to website: Industry Mall</li> <li>to website: Information and Download Center</li> <li>to website: Selection guide for cables and connectors</li> <li>to website: Image database</li> <li>to website: CAx-Download-Manager</li> <li>to website: Industry Online Support</li> </ul>	<a href="http://www.siemens.com/tia-selection-tool">http://www.siemens.com/tia-selection-tool</a> <a href="http://www.siemens.com/simatic-net">http://www.siemens.com/simatic-net</a> <a href="https://mall.industry.siemens.com">https://mall.industry.siemens.com</a> <a href="http://www.siemens.com/industry/infocenter">http://www.siemens.com/industry/infocenter</a> <a href="https://sie.ag/2QdIxcP">https://sie.ag/2QdIxcP</a> <a href="http://automation.siemens.com/bilddb">http://automation.siemens.com/bilddb</a> <a href="http://www.siemens.com/cax">http://www.siemens.com/cax</a> <a href="https://support.industry.siemens.com">https://support.industry.siemens.com</a>

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