

### Product type designation

Product description

### PROFIBUS ECOFAST Hybrid Cable

ECOFAST Hybrid cable (data and energy wires), preferred length, assembled with ECOFAST connector and socket

PROFIBUS ECOFAST Hybrid Cable, 2x Cu 0.64 mm, 4x Cu 1.5 mm<sup>2</sup>, Cable pre-assembled with ECOFAST connector and socket, trailable, Length 20 m



Suitability for use	Hybrid cable for connection of ECOFAST stations
Cable designation	02Y (ST)C 1 x 2 x 0.65/2.56 - 150 LI LIH-Z 11Y 4 x 1 x 1.5 VI FRNC
Wire length	20 m

### Electrical data

Damping ratio per length	
<ul style="list-style-type: none"> <li>at 9.6 kHz / maximum</li> </ul>	0.003 dB/m
<ul style="list-style-type: none"> <li>at 38.4 kHz / maximum</li> </ul>	0.004 dB/m
<ul style="list-style-type: none"> <li>at 4 MHz / maximum</li> </ul>	0.025 dB/m
<ul style="list-style-type: none"> <li>at 16 MHz / maximum</li> </ul>	0.049 dB/m
Impedance	
<ul style="list-style-type: none"> <li>Rated value</li> </ul>	150 Ω
<ul style="list-style-type: none"> <li>at 9.6 kHz</li> </ul>	270 Ω
<ul style="list-style-type: none"> <li>at 38.4 kHz</li> </ul>	185 Ω
<ul style="list-style-type: none"> <li>at 3 MHz ... 20 MHz</li> </ul>	150 Ω
Relative symmetrical tolerance	

<ul style="list-style-type: none"> <li>• of the characteristic impedance at 9.6 kHz</li> </ul>	10 %
<ul style="list-style-type: none"> <li>• of the characteristic impedance at 38.4 kHz</li> </ul>	10 %
<ul style="list-style-type: none"> <li>• of the characteristic impedance at 3 MHz ... 20 MHz</li> </ul>	10 %
Loop resistance per length / maximum	138 Ω/km
Shield resistance per length / maximum	15 Ω/km
Insulation resistance coefficient	20 GΩ·m
Operating voltage / maximum	80 V
Capacity per length / at 1 kHz	30 pF/m
Operating voltage / RMS value	100 V
Conductor cross section / of the power wire	1.5 mm <sup>2</sup>
Continuous current / of the power wires	12 A

### Mechanical data

Design of the shield	Overlapped aluminum-clad foil, sheathed in a braided screen of tin-plated copper wires
Number of electrical cores	6
Type of electrical connection / FastConnect	No
Outer diameter <ul style="list-style-type: none"> <li>• of inner conductor</li> <li>• of the wire insulation</li> <li>• of cable sheath</li> </ul>	0.67 mm 2.56 mm 11 mm
Symmetrical tolerance of the outer diameter / of cable sheath	0.3 mm
Material <ul style="list-style-type: none"> <li>• of the wire insulation</li> <li>• of cable sheath</li> </ul>	polyethylene (PE) PUR
Color <ul style="list-style-type: none"> <li>• of the insulation of data wires</li> <li>• of the power wire insulation</li> <li>• of cable sheath</li> </ul>	red / green Black Violet
Bending radius <ul style="list-style-type: none"> <li>• with multiple bends / minimum permissible</li> </ul>	82.5 mm
Number of bending cycles	5000000; For use in cable carriers, for 5 million bending cycles with a bending radius of 82.5 mm (7.5x D) and an acceleration of 2.5 m/s <sup>2</sup>
Tensile load / maximum	300 N
Weight per length	150 kg/km

### Ambient conditions

Ambient temperature <ul style="list-style-type: none"> <li>• during operation</li> <li>• during storage</li> <li>• during transport</li> </ul>	-40 ... +60 °C -40 ... +60 °C -40 ... +60 °C
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<ul style="list-style-type: none"> <li>• during installation</li> <li>• Note</li> </ul>	-40 ... +60 °C Electrical properties measured at 20 Cel, verification according to DIN 47250 part 4 respectively DIN VDE 0472
Burning behavior	flame-retardant according to IEC 60332-1
Chemical resistance <ul style="list-style-type: none"> <li>• to mineral oil</li> <li>• to grease</li> </ul>	Conditional resistance Conditional resistance
Radiological resistance / to UV radiation	resistant
Protection class IP	IP65

### 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
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### Standards, specifications, approvals

UL/ETL listing / 300 V Rating	No
UL/ETL style / 600 V Rating	No
Certificate of suitability <ul style="list-style-type: none"> <li>• RoHS conformity</li> </ul>	Yes

### Further information / Internet-Links

Internet-Link <ul style="list-style-type: none"> <li>• to website: Selector SIMATIC NET 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: Image database</li> <li>• to website: CAx Download Manager</li> <li>• to website: Industry Online Support</li> </ul>	<a href="http://www.siemens.com/snst">http://www.siemens.com/snst</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="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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