

### Product type designation

Product description

### PROFIBUS ECOFAST Hybrid Cable GP

ECOFAST Hybrid cable (data and energy wires), product sold by meter, unassembled  
SIMATIC NET, PROFIBUS ECOFAST HYBRID CABLE GP,  
TRAILING CABLE WITH 4 X CU (1.5 SQMM) AND 2XCU (0.64 MM)  
SHIELDED, SOLD BY THE METER, MAX. CONSIGNMENT: 1000  
M, MIN. ORDER LENGTH: 20 M



Suitability for use

Hybrid cable for connection of ECOFAST stations, UL approval

Cable designation

02Y (ST)C 1x2x0.65/2.56 -150 LI LIY-Z Y 4x1x1.5 VI

### Electrical data

Damping ratio per length

- |                         |            |
|-------------------------|------------|
| • at 9.6 kHz / maximum  | 0.004 dB/m |
| • at 38.4 kHz / maximum | 0.004 dB/m |
| • at 4 MHz / maximum    | 0.025 dB/m |
| • at 16 MHz / maximum   | 0.049 dB/m |

Impedance

- |                       |       |
|-----------------------|-------|
| • Rated value         | 150 Ω |
| • at 9.6 kHz          | 270 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

138 Ω/km

Shield resistance per length / maximum

15 Ω/km

Insulation resistance coefficient

20 GΩ·m

Capacity per length / at 1 kHz

30 pF/m

Operating voltage / RMS value

600 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>	PE PVC
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>	110 mm
Number of bending cycles	1000000; For use in cable carriers, for 1 million bending cycles with a bending radius of 166 mm (15x D) and an acceleration of 4.0 m/s <sup>2</sup>
Tensile load / maximum	300 N
Weight per length	154 kg/km

### Permitted 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>	-30 ... +80 °C -30 ... +80 °C -30 ... +80 °C -30 ... +80 °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 60332-3-24 (Category C)
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

### Product properties, functions, components / general

Product property	
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- halogen-free
- silicon-free

Yes  
Yes

### Standards, specifications, approvals

- Certificate of suitability
- RoHS conformity

Yes

### Further Information / Internet Links

#### Internet-Link

- to website: Selector SIMATIC NET SELECTION TOOL
- to website: Industrial communication
- to website: Industry Mall
- to website: Information and Download Center
- to website: Image database
- to website: CAx Download Manager
- to website: Industry Online Support

<http://www.siemens.com/snst>  
<http://www.siemens.com/simatic-net>  
<https://mall.industry.siemens.com>  
<http://www.siemens.com/automation/net/catalog>  
<http://automation.siemens.com/bilddb>  
<http://www.siemens.com/cax>  
<https://support.industry.siemens.com>

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