

Product type designation

Product description

PROFIBUS ECOFAST Hybrid Cable

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

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 G Ω ·m

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 ²
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"> • of inner conductor • of the wire insulation • of cable sheath 	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"> • of the wire insulation • of cable sheath 	PE PUR
Color <ul style="list-style-type: none"> • of the insulation of data wires • of the power wire insulation • of cable sheath 	red / green Black Violet
Bending radius <ul style="list-style-type: none"> • with multiple bends / minimum permissible 	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 ²
Tensile load / maximum	300 N
Weight per length	150 kg/km

Permitted ambient conditions

Ambient temperature <ul style="list-style-type: none"> • during operation • during storage • during transport • during installation • Note 	-40 ... +60 °C -40 ... +60 °C -40 ... +60 °C -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"> • to mineral oil • to grease 	Conditional resistance Conditional resistance
Radiological resistance / to UV radiation	resistant

Product properties, functions, components / general

Product property	
• halogen-free	Yes
• silicon-free	Yes

Standards, specifications, approvals

Certificate of suitability	
• RoHS conformity	Yes

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

last modified: 26.02.2015