

Product type designation

Product description

PROFIBUS FC Standard Cable GP

Standard bus cable (2-core), spool box, unassembled
SIMATIC NET, PB FC STANDARD, BUS CABLE 2-WIRE,
SHIELDED, SPEC. DESIGN FOR RAPID INSTALL. 50 M IN SPOOL
BOX



Suitability for use	Standard cable specially designed for fast, permanent installation
Cable designation	02YSY (ST) CY 1x2x0,64/2,55-150 VI KF 40 FR
Wire length	50 m

Electrical data

Damping ratio per length	
• at 9.6 kHz / maximum	0.0025 dB/m
• at 38.4 kHz / maximum	0.004 dB/m
• at 4 MHz / maximum	0.022 dB/m
• at 16 MHz / maximum	0.042 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	110 mΩ/m
Shield resistance per length / maximum	9.5 Ω/km
Capacity per length / at 1 kHz	28.5 pF/m
Operating voltage • RMS value	100 V

Mechanical data

Number of electrical cores	2
Design of the shield	Overlapped aluminum-clad foil, sheathed in a braided screen of tin-plated copper wires
Type of electrical connection / FastConnect	Yes
Outer diameter • of inner conductor • of the wire insulation • of the inner sheath of the cable • of cable sheath	0.65 mm 2.55 mm 5.4 mm 8 mm
Symmetrical tolerance of the outer diameter / of cable sheath	0.4 mm
Material • of the wire insulation • of the inner sheath of the cable • of cable sheath	PE PVC PVC
Color • of the insulation of data wires • of cable sheath	red/green Violet
Bending radius • with single bend / minimum permissible • with multiple bends / minimum permissible	37.5 mm 75 mm
Tensile load / maximum	100 N
Weight per length	80 kg/km

Permitted ambient conditions

Ambient temperature • during operation • during storage • during transport • during installation • Note	-40 ... +75 °C -40 ... +75 °C -40 ... +75 °C -40 ... +75 °C Electrical properties measured at 20 °C, tests according to DIN 47250 part 4 respectively DIN VDE 0472
Burning behavior	flame resistant according to IEC 60332-3-24 (Category C) and UL 1685 (CSA FT 4)
Chemical resistance	

• to mineral oil • to grease • to water	oil resistant according to IEC 60811-2-1 (4 hours / 70°C)
	Conditional resistance
	conditional resistance
Radiological resistance / to UV radiation	resistant

Product properties, functions, components / general

Product feature	
• halogen-free	No
• silicon-free	Yes

Standards, specifications, approvals

UL/ETL listing / 300 V Rating	Yes; c(UL)us, CMG / CL3 / Sun Res
UL/ETL style / 600 V Rating	Yes
Certificate of suitability	
• CE marking	Yes
• UL approval	Yes
• RoHS conformity	Yes
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/industry/infocenter
• 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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