SIEMENS

Data sheet

6XV1830-0EN20

product type designation	PROFIBUS FC Standard Cable GP	
product description	Standard bus cable (2 wires), preferred length, not assembled	
	PROFIBUS FC Standard, bus cable 2-wire, shielded, special configuration for Quick assembly 20 m.	
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	20 m	
lectrical data		
attenuation factor 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	
nechanical 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	0.65 mm	
of the wire insulation	2.55 mm	
 of the inner sheath of the cable 	5.4 mm	
of cable sheath	8 mm	
symmetrical tolerance of the outer diameter / of cable sheath	0.4 mm	
material		
 of the wire insulation 	polyethylene (PE)	
 of the inner sheath of the cable 	PVC	

color	
of the insulation of data wires	red/green
 of the institution of data wires of cable sheath 	Violet
	Vibiet
bending radius	07.5 mm
with single bend / minimum permissible	37.5 mm
with multiple bends / minimum permissible	75 mm
tensile load / maximum	100 N
weight per length	78 kg/km
ambient conditions	
ambient temperature	
during operation	-40 +75 °C
during storage	-40 +75 °C
during transport	-40 +75 °C
during installation	-40 +75 °C
• note	Electrical properties measured at 20 °C, tests according to DIN 47250 part 4 respectively DIN VDE 0472
fire behavior	flame resistant according to IEC 60332-3-24 (Category C) and UL 1685 (CSA FT 4)
class of burning behaviour / according to EN 13501-6	Eca
chemical resistance	
• to mineral oil	oil resistant according to IEC 60811-2-1 (4 h / 70°C)
• to grease	Conditional resistance
• to water	conditional resistance
radiological resistance / to UV radiation	resistant
product features, product functions, product components / ger	neral
product feature	
 halogen-free 	No
silicon-free	Yes
standards, specifications, approvals	
UL/ETL listing / 300 V Rating	Yes; c(ETL)us, CMG / (ETL)us CL3 / Sun Res
UL/ETL style / 600 V Rating	Yes; cRUus AWM 21694 AWM I A/B 60°C 600V FT2
certificate of suitability	
EAC approval	Yes
CE marking	Yes
UL approval	Yes
RoHS conformity	Yes
Marine classification association	
 American Bureau of Shipping Europe Ltd. (ABS) 	No
 French marine classification society (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
reference code	
according to IEC 81346-2	WG
• according to IEC 81346-2:2019	WGB
further information / internet links	
internet link	
 to web page: selection aid TIA Selection Tool 	http://www.siemens.com/tia-selection-tool
• 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: Selection guide for cables and connectors	https://sie.ag/2QdlxcP
• 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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