## SIEMENS

## Data sheet

product type designation

product description

## 6XV1830-0ET20

Standard bus cable (2 wires), preferred length, not assembled

PROFIBUS FC Standard, bus cable 2-wire, shielded special configuration for Quick assembly 200 m

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|  | Chanderd apple appointly designed for fact removes tightly the                             |
| 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  | 200 m  |
| electrical data  |  |
| attenuation factor per length  |  |
| • at 9.6 kHz / maximum   | 0.0025 dB/m  |
| • at 38.4 kHz / maximum  | 0.004 dB/m   |
| <ul> <li>at 4 MHz / maximum</li> </ul>   | 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   |  |
| <ul> <li>of the characteristic impedance at 9.6 kHz</li> </ul>   | 10 %   |
| <ul> <li>of the characteristic impedance at 38.4 kHz</li> </ul>  | 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-<br>plated copper wires |
| type of electrical connection / FastConnect  | Yes  |
| outer diameter   |  |
| of inner conductor   | 0.65 mm  |
| <ul> <li>of the wire insulation</li> </ul>   | 2.55 mm  |
| <ul> <li>of the inner sheath of the cable</li> </ul>   | 5.4 mm   |
| <ul> <li>of cable sheath</li> </ul>  | 8 mm   |
| symmetrical tolerance of the outer diameter / of cable sheath  | 0.4 mm   |
| material   |  |
| <ul> <li>of the wire insulation</li> </ul>   | polyethylene (PE)  |
| <ul> <li>of the inner sheath of the cable</li> </ul>   | PVC  |

| <ul> <li>of cable sheath</li> </ul>                               | PVC  |
|---|--|
| color   |  |
| of the insulation of data wires                                   | red/green  |
| • of cable sheath   | Violet   |
| bending radius  |  |
| 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   |  |
| <ul> <li>during operation</li> </ul>                              | -40 +75 °C   |
| <ul> <li>during storage</li> </ul>                                | -40 +75 °C   |
| <ul> <li>during transport</li> </ul>                              | -40 +75 °C   |
| <ul> <li>during installation</li> </ul>                           | -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           | / general  |
| product feature   |  |
| <ul> <li>halogen-free</li> </ul>                                  | 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  |  |
| <ul> <li>EAC approval</li> </ul>                                  | Yes  |
| CE marking  | Yes  |
| UL approval   | Yes  |
| RoHS conformity   | Yes  |
| Marine classification association                                 |  |
| <ul> <li>American Bureau of Shipping Europe Ltd. (ABS)</li> </ul> | No   |
| <ul> <li>French marine classification society (BV)</li> </ul>     | 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  |  |
| • acc. to IEC 81346-2   | WG   |
| according to IEC 81346-2:2019                                     | WGB  |
| further information / internet-Links                              |  |
| Internet-Link   |  |
| <ul> <li>to web page: selection aid TIA Selection Tool</li> </ul> | 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   |
| <ul> <li>to website: Industry Online Support</li> </ul>           | https://support.industry.siemens.com   |
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