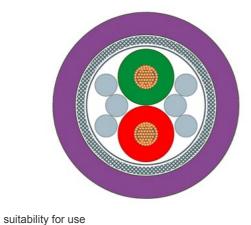
## **SIEMENS**

Data sheet 6XV1830-0PH10

## product type designation

product description



## **PROFIBUS Torsion Cable**

For use in moving machine components

Highly flexible bus cable (2-core), sold by the meter, unassembled

PROFIBUS torsion cable, for use in highly flexible applications (torsion) Delivery unit: max. 1000 m, minimum order quantity 20 m, sold by the meter

| Suitability for use   | Tor use in moving machine components   |
|---|--|
| cable designation   | 02Y (ST) C 11Y 1x2x0,8/2,56-150 LI FR VI   |
| electrical data   |  |
| attenuation factor per length                                   |  |
| • at 9.6 kHz / maximum  | 0.0025 dB/m  |
| • at 38.4 kHz / maximum   | 0.003 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                                  |  |
| <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                            | 98 mΩ/m  |
| shield resistance per length / maximum                          | 14 Ω/km  |
| insulation resistance coefficient                               | 16000 GΩ·m   |
| capacity per length / at 1 kHz                                  | 29 pF/m  |
| operating voltage   |  |
| RMS value   | 80 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                     | No   |
| outer diameter  |  |
| <ul> <li>of inner conductor</li> </ul>                          | 0.8 mm   |
| <ul> <li>of the wire insulation</li> </ul>                      | 2.56 mm  |
| <ul> <li>of the inner sheath of the cable</li> </ul>            | 6 mm   |
| of cable sheath   | 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 cable sheath</li></ul>                               | PUR (TPE-U)  |

| color  ■ of the insulation of data wires  | red/green  |
|---|--|
| of cable sheath   | Violet   |
| bending radius  | VIOLET   |
| G   | 30 mm  |
| <ul><li>with single bend / minimum permissible</li><li>with continuous bending</li></ul>  | 60 mm  |
|   |  |
| number of bending cycles  number of torsion cycles / with torsion by ± 180° on 1 m  | Not suitable for garland usage 5000000   |
| cable length  | 3000000  |
| tensile load / maximum  | 100 N  |
| weight per length   | 65 kg/km   |
| ambient conditions  |  |
| ambient temperature   |  |
| during operation  | -25 +75 °C   |
| during storage  | -40 +80 °C   |
| during transport  | -40 +80 °C   |
| during installation   | -25 +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 60332-1-2   |
| class of burning behaviour / according to EN 13501-6  | Eca  |
| chemical resistance   |  |
| to mineral oil  | oil resistant according to IEC 60811-2-1 (7x24h/90°C)  |
| • to grease   | resistant  |
| • 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>  | Yes  |
| • silicon-free  | Yes  |
| standards, specifications, approvals  |  |
| UL/ETL listing / 300 V Rating   | Yes; CMX   |
| UL/ETL style / 600 V Rating   | No   |
| certificate of suitability  |  |
| <ul> <li>EAC approval</li> </ul>  | Yes  |
| <ul> <li>CE marking</li> </ul>  | Yes  |
| RoHS conformity   | Yes  |
| A A I I I I I I I I I I I I I I I I I I   |  |
| Marine classification association   |  |
| Marine classification association  • American Bureau of Shipping Europe Ltd. (ABS)  | No   |
|   | No<br>No   |
| American Bureau of Shipping Europe Ltd. (ABS)   |  |
| <ul><li>American Bureau of Shipping Europe Ltd. (ABS)</li><li>French marine classification society (BV)</li></ul>   | No   |
| <ul> <li>American Bureau of Shipping Europe Ltd. (ABS)</li> <li>French marine classification society (BV)</li> <li>Det Norske Veritas (DNV)</li> </ul>  | No<br>No   |
| <ul> <li>American Bureau of Shipping Europe Ltd. (ABS)</li> <li>French marine classification society (BV)</li> <li>Det Norske Veritas (DNV)</li> <li>Germanische Lloyd (GL)</li> </ul>  | No<br>No<br>No   |
| <ul> <li>American Bureau of Shipping Europe Ltd. (ABS)</li> <li>French marine classification society (BV)</li> <li>Det Norske Veritas (DNV)</li> <li>Germanische Lloyd (GL)</li> <li>Lloyds Register of Shipping (LRS)</li> </ul>   | No<br>No<br>No   |
| <ul> <li>American Bureau of Shipping Europe Ltd. (ABS)</li> <li>French marine classification society (BV)</li> <li>Det Norske Veritas (DNV)</li> <li>Germanische Lloyd (GL)</li> <li>Lloyds Register of Shipping (LRS)</li> <li>Nippon Kaiji Kyokai (NK)</li> </ul>   | No<br>No<br>No<br>No   |
| <ul> <li>American Bureau of Shipping Europe Ltd. (ABS)</li> <li>French marine classification society (BV)</li> <li>Det Norske Veritas (DNV)</li> <li>Germanische Lloyd (GL)</li> <li>Lloyds Register of Shipping (LRS)</li> <li>Nippon Kaiji Kyokai (NK)</li> <li>Polski Rejestr Statkow (PRS)</li> </ul>   | No<br>No<br>No<br>No   |
| <ul> <li>American Bureau of Shipping Europe Ltd. (ABS)</li> <li>French marine classification society (BV)</li> <li>Det Norske Veritas (DNV)</li> <li>Germanische Lloyd (GL)</li> <li>Lloyds Register of Shipping (LRS)</li> <li>Nippon Kaiji Kyokai (NK)</li> <li>Polski Rejestr Statkow (PRS)</li> </ul>   | No<br>No<br>No<br>No<br>No   |
| <ul> <li>American Bureau of Shipping Europe Ltd. (ABS)</li> <li>French marine classification society (BV)</li> <li>Det Norske Veritas (DNV)</li> <li>Germanische Lloyd (GL)</li> <li>Lloyds Register of Shipping (LRS)</li> <li>Nippon Kaiji Kyokai (NK)</li> <li>Polski Rejestr Statkow (PRS)</li> </ul> reference code <ul> <li>according to IEC 81346-2</li> </ul>   | No No No No No No WG   |
| American Bureau of Shipping Europe Ltd. (ABS)     French marine classification society (BV)     Det Norske Veritas (DNV)     Germanische Lloyd (GL)     Lloyds Register of Shipping (LRS)     Nippon Kaiji Kyokai (NK)     Polski Rejestr Statkow (PRS)  reference code     according to IEC 81346-2     according to IEC 81346-2:2019  | No No No No No No WG   |
| American Bureau of Shipping Europe Ltd. (ABS)     French marine classification society (BV)     Det Norske Veritas (DNV)     Germanische Lloyd (GL)     Lloyds Register of Shipping (LRS)     Nippon Kaiji Kyokai (NK)     Polski Rejestr Statkow (PRS)  reference code     according to IEC 81346-2     according to IEC 81346-2:2019  further information / internet-Links  | No No No No No No WG   |
| American Bureau of Shipping Europe Ltd. (ABS)     French marine classification society (BV)     Det Norske Veritas (DNV)     Germanische Lloyd (GL)     Lloyds Register of Shipping (LRS)     Nippon Kaiji Kyokai (NK)     Polski Rejestr Statkow (PRS)  reference code     according to IEC 81346-2     according to IEC 81346-2:2019  further information / internet-Links  Internet-Link   | No No No No No WG WGB  |
| American Bureau of Shipping Europe Ltd. (ABS)     French marine classification society (BV)     Det Norske Veritas (DNV)     Germanische Lloyd (GL)     Lloyds Register of Shipping (LRS)     Nippon Kaiji Kyokai (NK)     Polski Rejestr Statkow (PRS)  reference code     according to IEC 81346-2     according to IEC 81346-2:2019  further information / internet-Links  Internet-Link     to web page: selection aid TIA Selection Tool   | No No No No No No WG WGB   |
| American Bureau of Shipping Europe Ltd. (ABS)     French marine classification society (BV)     Det Norske Veritas (DNV)     Germanische Lloyd (GL)     Lloyds Register of Shipping (LRS)     Nippon Kaiji Kyokai (NK)     Polski Rejestr Statkow (PRS)  reference code     according to IEC 81346-2     according to IEC 81346-2:2019  further information / internet-Links  Internet-Link     to web page: selection aid TIA Selection Tool     to website: Industrial communication  | No No No No No No WG WGB  http://www.siemens.com/tia-selection-tool http://www.siemens.com/simatic-net   |
| American Bureau of Shipping Europe Ltd. (ABS)     French marine classification society (BV)     Det Norske Veritas (DNV)     Germanische Lloyd (GL)     Lloyds Register of Shipping (LRS)     Nippon Kaiji Kyokai (NK)     Polski Rejestr Statkow (PRS)  reference code     according to IEC 81346-2     according to IEC 81346-2:2019  further information / internet-Links  Internet-Link     to web page: selection aid TIA Selection Tool     to website: Industry Mall     to website: Information and Download Center   | No No No No No No WG WGB  http://www.siemens.com/tia-selection-tool http://www.siemens.com/simatic-net https://mall.industry.siemens.com   |
| American Bureau of Shipping Europe Ltd. (ABS)     French marine classification society (BV)     Det Norske Veritas (DNV)     Germanische Lloyd (GL)     Lloyds Register of Shipping (LRS)     Nippon Kaiji Kyokai (NK)     Polski Rejestr Statkow (PRS)  reference code     according to IEC 81346-2     according to IEC 81346-2:2019  further information / internet-Links  Internet-Link     to web page: selection aid TIA Selection Tool     to website: Industrial communication     to website: Industry Mall  | No No No No No No WG WGB  http://www.siemens.com/tia-selection-tool http://www.siemens.com/simatic-net https://mall.industry.siemens.com http://www.siemens.com/industry/infocenter  |
| American Bureau of Shipping Europe Ltd. (ABS)     French marine classification society (BV)     Det Norske Veritas (DNV)     Germanische Lloyd (GL)     Lloyds Register of Shipping (LRS)     Nippon Kaiji Kyokai (NK)     Polski Rejestr Statkow (PRS)  reference code     according to IEC 81346-2     according to IEC 81346-2:2019  further information / internet-Links  Internet-Link     to web page: selection aid TIA Selection Tool     to website: Industry Mall     to website: Information and Download Center     to website: Selection guide for cables and                                    | No No No No No No WG WGB  http://www.siemens.com/tia-selection-tool http://www.siemens.com/simatic-net https://mall.industry.siemens.com http://www.siemens.com/industry/infocenter  |
| American Bureau of Shipping Europe Ltd. (ABS)     French marine classification society (BV)     Det Norske Veritas (DNV)     Germanische Lloyd (GL)     Lloyds Register of Shipping (LRS)     Nippon Kaiji Kyokai (NK)     Polski Rejestr Statkow (PRS)  reference code     according to IEC 81346-2     according to IEC 81346-2:2019  further information / internet-Links  Internet-Link     to web page: selection aid TIA Selection Tool     to website: Industry Mall     to website: Information and Download Center     to website: Selection guide for cables and connectors                         | No No No No No No WG WGB  http://www.siemens.com/tia-selection-tool http://www.siemens.com/simatic-net https://mall.industry.siemens.com http://www.siemens.com/industry/infocenter https://sie.ag/2QdlxcP                                       |
| American Bureau of Shipping Europe Ltd. (ABS)     French marine classification society (BV)     Det Norske Veritas (DNV)     Germanische Lloyd (GL)     Lloyds Register of Shipping (LRS)     Nippon Kaiji Kyokai (NK)     Polski Rejestr Statkow (PRS)  reference code     according to IEC 81346-2     according to IEC 81346-2:2019  further information / internet-Links  Internet-Link     to web page: selection aid TIA Selection Tool     to website: Industrial communication     to website: Industry Mall     to website: Selection guide for cables and connectors     to website: Image database | No No No No No No WG WGB  http://www.siemens.com/tia-selection-tool http://www.siemens.com/simatic-net https://mall.industry.siemens.com http://www.siemens.com/industry/infocenter https://sie.ag/2QdlxcP  http://automation.siemens.com/bilddb |