SIEMENS

## Data sheet 6XV1878-5HN15

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| **product type designation** | **IE TP Cord M12-180/M12-180** |
| product description | Flexible plug-in cable (8-wire), preferred length, prefabricated with two IE FC M12 connectors 4X2 (X-coded) |
| | IE TP Cord M12-180/M12-180 pre-assembled IE Flexible Cable, with 2 M12 connectors (X-coded), length 15.0 m. |



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| product brand name | SIMATIC NET |
| Technical Product Detail Page | https://i.siemens.com/1P6XV1878-5HN15 |
| suitability for use | For connecting Industrial Ethernet stations with an M12 interface (e.g. SCALANCE W and XP-200) |
| cable designation | S/FTP |
| wire length | 15 m |
| **electrical data** | |
| number of electrical connections | 2 |
| attenuation factor per length | |
| ● at 10 MHz / maximum | 0.086 dB/m |
| ● at 100 MHz / maximum | 0.28 dB/m |
| ● at 300 MHz / maximum | 0.402 dB/m |
| ● at 600 MHz / maximum | 0.735 dB/m |
| impedance | |
| ● at 1 MHz ... 100 MHz | 100 Ω |
| near-end crosstalk per length | |
| ● at 100 MHz | 0.724 dB/m |
| ● at 300 MHz | 0.653 dB/m |
| ● at 600 MHz | 0.608 dB/m |
| coupling loss / at 30 MHz … 100 MHz / minimum | 80 dB |
| loop resistance per length / maximum | 290 mΩ/m |
| insulation resistance coefficient | 5000 GΩ·m |
| operating voltage | |
| ● RMS value | 80 V |
| NVP value in percent | 68 % |
| **mechanical data** | |
| number of electrical cores | 8 |
| design of the shield | S/FTP, overlapped aluminum-clad foil, sheathed in a protective braided shield of tinned copper wires |
| type of electrical connection / FastConnect | No |
| core diameter | |
| ● of AWG26 insulated conductor | 0.48 mm |
| outer diameter | |
| ● of the wire insulation | 1 mm |
| ● of the inner sheath of the cable | 5.4 mm |
| ● of cable sheath | 6.5 mm |
| symmetrical tolerance of the outer diameter / of cable sheath | 0.3 mm |


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| material | |
| ● of the wire insulation | polyethylene (PE) |
| ● of cable sheath | PUR |
| color | |
| ● of the insulation of data wires | white/blue, white/orange, white/green, white/brown |
| ● of cable sheath | green |
| bending radius | |
| ● with single bend / minimum permissible | 32.5 mm |
| ● with multiple bends / minimum permissible | 65 mm |
| tensile load / maximum | 100 N |
| weight per length | 45 kg/km |
| **plug** | |
| type of plug interlock | screwed |
| design of plug-in connection | M12-180 |
| connector coding | M12 |
| ● of the M12 circular connector | X-coded |
| **ambient conditions** | |
| ambient temperature | |
| ● during operation | -30 ... +80 °C |
| ● during storage | -40 ... +80 °C |
| ● during transport | -40 ... +80 °C |
| ● during installation | -40 ... +80 °C |
| fire behavior | flame resistant according to IEC 60332-1-2, smoke density according to IEC 61034 |
| chemical resistance | |
| ● to mineral oil | oil resistant according to DIN EN 60811-2-1 |
| ● to grease | Conditional resistance |
| ● to water | conditional resistance |
| radiological resistance / to UV radiation | resistant |
| protection class IP | IP65, IP67 |
| **product features, product functions, product components / general** | |
| product feature | |
| ● halogen-free | Yes; acc. to IEC 60754-1, IEC 61034 |
| ● PoE capability | Yes |
| ● PoE+ capability | Yes |
| ● PoE++ capability | Yes |
| ● silicon-free | Yes |
| **standards, specifications, approvals** | |
| UL/ETL listing / 300 V Rating | Yes; AWM Style 21815, Wiring Harness |
| UL/ETL style / 600 V Rating | No |
| certificate of suitability | ISO/IEC 11801-1, IEC 61035 |
| ● EAC approval | Yes |
| ● CE marking | Yes |
| ● RoHS conformity | Yes |
| standard for structured cabling | Cat6A |
| 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 |
| **further information / internet links** | |
| internet link | |
| ● to website: Selection guide for cables and connectors | https://support.industry.siemens.com/cs/ww/en/view/109766358 |
| ● to web page: selection aid TIA Selection Tool | https://www.siemens.com/tstcloud |
| ● to web page: SiePortal | https://sieportal.siemens.com/ |
| ● to website: Image database | https://www.automation.siemens.com/bilddb |


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| ● to website: CAx-Download-Manager | https://www.siemens.com/cax |
| ● to website: Industry Online Support | https://support.industry.siemens.com |

## security information

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| security information | Siemens provides products and solutions with industrial cybersecurity functions that support the secure operation of plants, systems, machines and networks. In order to protect plants, systems, machines and networks against cyber threats, it is necessary to implement - and continuously maintain - a holistic, state-of-the-art industrial cybersecurity concept. Siemens' products and solutions constitute one element of such a concept. Customers are responsible for preventing unauthorized access to their plants, systems, machines and networks. Such systems, machines and components should only be connected to an enterprise network or the internet if and to the extent such a connection is necessary and only when appropriate security measures (e.g. firewalls and/or network segmentation) are in place. For additional information on industrial cybersecurity measures that may be implemented, please visit www.siemens.com/cybersecurity-industry. Siemens' products and solutions undergo continuous development to make them more secure. Siemens strongly recommends that product updates are applied as soon as they are available and that the latest product versions are used. Use of product versions that are no longer supported, and failure to apply the latest updates may increase customer's exposure to cyber threats. To stay informed about product updates, subscribe to the Siemens Industrial Cybersecurity RSS Feed under https://www.siemens.com/cert. (V4.7) |

## Approvals / Certificates

### General Product Approval

CE EG-Konf. | UKCA | Declaration of Conformity | Manufacturer Declaration | UL | CE EG-Konf.

### Industrial Communication

PROFINET

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