SIEMENS

## Data sheet 6XV1878-5SH10

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| **product type designation** | **IE TP Cord M12-90/RJ45-180** |
| product description | Flexible plug-in cable (8-wire), preferred length, pre-assembled with 1 x IE M12 plug 4X2, X-coded, 90 degrees cable outlet and 1x RJ45 connector; 4x2, 180 degrees cable outlet |
| | IE TP Cord M12-90/RJ45-180 pre-assembled IE Flexible Cable, with 1x M12 plug (X-coded) 90-degree cable outlet; 1x RJ45 plug; 180-degree cable outlet; length 1 m. |



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| product brand name | SIMATIC NET |
| Technical Product Detail Page | https://i.siemens.com/1P6XV1878-5SH10 |
| suitability for use | For connecting Industrial Ethernet stations with an M12 interface (e.g. SCALANCE W and SCALANCE X) |
| cable designation | S/FTP |
| wire length | 1 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 |
| 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 |
| **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 | IP65/67 (M12), IP20 (RJ45) |
| **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 |
| ● to website: CAx-Download-Manager | https://www.siemens.com/cax |
| ● to website: Industry Online Support | https://support.industry.siemens.com |
| **security information** | |
| security information | Siemens provides products and solutions with industrial cybersecurity functions that support the secure operation of plants, systems, machines and networks. |


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## Approvals / Certificates

### General Product Approval

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

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