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SIEMENS

## Data sheet 6XV1870-8GH20

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|---|---|
| **product type designation** | **IE Connecting Cable M12-90/M12-90** |
| product description | Flexible plug-in cable (4-wire), preferred length, prefabricated with two 4-pin M12 connectors (D-coded, 90° cable outlet) |
| | IE Connecting Cable M12-90/M12-90, pre-assembled IE FC Trailing Cable GP, with 2 M12 connectors (D-coded) Length 2.0 m. |



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|---|---|
| suitability for use | For connecting Industrial Ethernet stations (e.g. SIMATIC ET200 and SCALANCE XP-200) in IP 65/67 degree of protection |
| cable designation | 2YY (ST) CY 2x2x0,75/1,5-100 LI GN |
| wire length | 2 m |
| **electrical data** | |
| number of electrical connections | 2 |
| attenuation factor per length | |
| ● at 10 MHz / maximum | 0.063 dB/m |
| ● at 100 MHz / maximum | 0.213 dB/m |
| impedance | |
| ● at 1 MHz ... 100 MHz | 100 Ω |
| relative symmetrical tolerance | |
| ● of the characteristic impedance at 1 MHz … 100 MHz | 5 % |
| near-end crosstalk per length | |
| ● at 1 MHz ... 100 MHz | 0.5 dB/m |
| transfer impedance per length / at 10 MHz | 20 mΩ/m |
| loop resistance per length / maximum | 120 mΩ/m |
| operating voltage | |
| ● RMS value | 80 V |
| NVP value in percent | 66 % |
| **mechanical data** | |
| number of electrical cores | 4 |
| design of the shield | Overlapped aluminum-clad foil, sheathed in a braided screen of tin-plated copper wires |
| core diameter | |
| ● of AWG22 insulated conductor | 0.75 mm |
| outer diameter | |
| ● of inner conductor | 0.75 mm |
| ● of the wire insulation | 1.5 mm |
| ● of the inner sheath of the cable | 3.9 mm |
| ● of cable sheath | 6.5 mm |
| symmetrical tolerance of the outer diameter / of cable sheath | 0.2 mm |
| material | |
| ● of the wire insulation | polyethylene (PE) |
| ● of the inner sheath of the cable | PVC |
| ● of cable sheath | PVC |
| color | |
| ● of the insulation of data wires | white/yellow/blue/orange |


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|---|---|
| • of cable sheath | green |
| bending radius | |
| • with single bend / minimum permissible | 32.5 mm |
| • with multiple bends / minimum permissible | 49 mm |
| • with continuous bending | 100 mm |
| number of bending cycles | 3000000; Drag chain suitable for 3 million bending cycles at a bending radius of 100 mm, a speed of 4 m/s and an acceleration of 4 m/s² |
| tensile load / maximum | 150 N |
| weight per length | 68 kg/km |
| **plug** | |
| type of plug interlock | screwed |
| connector coding | |
| • of the M12 circular connector | D-coded |
| **ambient conditions** | |
| ambient temperature | |
| • during operation | -25 ... +75 °C |
| • during storage | -25 ... +75 °C |
| • during transport | -25 ... +75 °C |
| • during installation | -10 ... +60 °C |
| • note | Electrical properties measured at 20 °C, tests according to DIN VDE 0472 |
| fire behavior | flame resistant according to UL 1685 (CSA FT 4) |
| chemical resistance | |
| • to mineral oil | conditional resistance |
| • to grease | Conditional resistance |
| radiological resistance / to UV radiation | resistant |
| protection class IP | IP65, IP67 |
| **product features, product functions, product components / general** | |
| product feature | |
| • halogen-free | No |
| • silicon-free | Yes |
| **standards, specifications, approvals** | |
| UL/ETL listing / 300 V Rating | Yes; c(ETL)us, CMG FT4 / (ETL)us PLTC / Sun Res / OIL 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 |
| • RoHS conformity | Yes |
| standard for structured cabling | Cat5e |
| 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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