



SIMATIC ET 200SP, Digital input module, DI 4x 120..230V AC Standard, type 3 (IEC 61131), Packing unit: 1 piece, fits to BU-type B1, Colour Code CC41, module diagnostics

| General information                                       |   |
|---|---|
| Product type designation                                  | DI 4x120 ... 230 V AC ST  |
| HW functional status                                      | From FS02   |
| Firmware version  | V0.0  |
| • FW update possible                                      | No  |
| usable BaseUnits  | BU type B1  |
| Color code for module-specific color identification plate | CC41  |
| Product function  |   |
| • I&M data  | Yes; I&M0 to I&M3   |
| • Isochronous mode  | No  |
| Engineering with  |   |
| • STEP 7 TIA Portal configurable/integrated from version  | V14   |
| • STEP 7 configurable/integrated from version             | V5.5 SP3  |
| • PROFIBUS from GSD version/GSD revision                  | One GSD file each, Revision 3 and 5 and higher                                |
| • PROFINET from GSD version/GSD revision                  | GSDML V2.3  |
| Operating mode  |   |
| • DI  | Yes   |
| • Counter   | No  |
| • Oversampling  | No  |
| • MSI   | No  |
| Supply voltage  |   |
| Rated value (AC)  | 230 V   |
| permissible range, lower limit (AC)                       | 187 V   |
| permissible range, upper limit (AC)                       | 264 V   |
| Reverse polarity protection                               | No  |
| Input current   |   |
| Current consumption (rated value)                         | 10 mA   |
| Encoder supply  |   |
| Number of outputs   | 4   |
| Short-circuit protection                                  | No; when using BU type B1, a fuse with 10 A tripping current must be provided |
| Output current  |   |
| • up to 60 °C, max.                                       | 10 A  |
| Power loss  |   |
| Power loss, typ.  | 1 W; Active power, load voltage 230 V, all inputs connected with 230 V, 50 Hz |
| Address area  |   |
| Address space per module                                  |   |
| • Inputs  | 1 byte; + 1 byte for QI information   |
| Hardware configuration                                    |   |
| Automatic encoding  | Yes   |
| • Mechanical coding element                               | Yes   |

|   |  |
|---|--|
| • Type of mechanical coding element                             | type C   |
| <b>Selection of BaseUnit for connection variants</b>            |  |
| • 1-wire connection   | BU type B1   |
| • 2-wire connection   | BU type B1   |
| • 3-wire connection   | BU type B1   |
| • 4-wire connection   | BU type B1 + potential distributor module                        |
| <b>Digital inputs</b>   |  |
| Number of digital inputs  | 4  |
| Input characteristic curve in accordance with IEC 61131, type 3 | Yes  |
| <b>Input voltage</b>  |  |
| • Rated value (AC)  | 230 V  |
| • for signal "0"  | 0V AC to 40V AC  |
| • for signal "1"  | 74 V AC to 264 V AC  |
| <b>Input current</b>  |  |
| • for signal "1", typ.  | 10.8 mA  |
| <b>Input delay (for rated value of input voltage)</b>           |  |
| for standard inputs   |  |
| — parameterizable   | No   |
| — at "0" to "1", min.   | 1.5 ms   |
| — at "0" to "1", max.   | 4 ms   |
| — at "1" to "0", min.   | 10 ms  |
| — at "1" to "0", max.   | 10 ms  |
| <b>Cable length</b>   |  |
| • shielded, max.  | 1 000 m  |
| • unshielded, max.  | 600 m  |
| <b>Encoder</b>  |  |
| <b>Connectable encoders</b>                                     |  |
| • 2-wire sensor   | Yes  |
| <b>Interrupts/diagnostics/status information</b>                |  |
| <b>Alarms</b>   |  |
| • Diagnostic alarm  | No   |
| • Hardware interrupt  | No   |
| <b>Diagnoses</b>  |  |
| • Monitoring the supply voltage                                 | No   |
| • Wire-break  | No   |
| • Short-circuit   | No   |
| <b>Diagnostics indication LED</b>                               |  |
| • Monitoring of the supply voltage (PWR-LED)                    | Yes; green PWR LED   |
| • Channel status display  | Yes; green LED   |
| • for channel diagnostics                                       | No   |
| • for module diagnostics  | Yes; green/red DIAG LED  |
| <b>Potential separation</b>                                     |  |
| <b>Potential separation channels</b>                            |  |
| • between the channels  | No   |
| • between the channels and backplane bus                        | Yes  |
| • between the channels and the power supply of the electronics  | No   |
| <b>Isolation</b>  |  |
| Isolation tested with   | 2 545 V DC/2 s (routine test)                                    |
| <b>Standards, approvals, certificates</b>                       |  |
| Suitable for safety functions                                   | No   |
| <b>Ambient conditions</b>                                       |  |
| <b>Ambient temperature during operation</b>                     |  |
| • horizontal installation, min.                                 | -30 °C   |
| • horizontal installation, max.                                 | 60 °C  |
| • vertical installation, min.                                   | -30 °C   |
| • vertical installation, max.                                   | 50 °C  |
| <b>Altitude during operation relating to sea level</b>          |  |
| • Installation altitude above sea level, max.                   | 2 000 m; On request: Installation altitudes greater than 2 000 m |
| <b>Dimensions</b>   |  |

|                 |       |
|-----------------|-------|
| Width           | 20 mm |
| Height          | 73 mm |
| Depth           | 58 mm |
| <b>Weights</b>  |       |
| Weight, approx. | 36 g  |

**last modified:** 8/16/2023 