




SIMATIC S7-1500, digital input module DI 16x 24...125 V UC HF, 16 channels in groups of 1; input delay 0.05..20 ms; Input type 3 (IEC 61131); Diagnostics, hardware interrupts: Front connector (screw terminals or push-in) to be ordered separately

| General information   |   |
|---|---|
| Product type designation  | DI 16x24 ... 125 V UC HF  |
| HW functional status  | FS01  |
| Firmware version  | V1.0.0  |
| • FW update possible  | Yes   |
| Product function  |   |
| • I&M data  | Yes; I&M0 to I&M3   |
| • Isochronous mode  | No  |
| • Prioritized startup   | Yes   |
| Engineering with  |   |
| • STEP 7 TIA Portal configurable/integrated from version        | V13 SP1 / -   |
| • STEP 7 configurable/integrated from version                   | V5.5 SP3 / -  |
| • PROFIBUS from GSD version/GSD revision                        | V1.0 / V5.1   |
| • PROFINET from GSD version/GSD revision                        | V2.3 / -  |
| Operating mode  |   |
| • DI  | Yes   |
| • Counter   | No  |
| • Oversampling  | No  |
| • MSI   | Yes   |
| Power   |   |
| Power available from the backplane bus                          | 1.2 W   |
| Power loss  |   |
| Power loss, typ.  | 2.2 W; At 24 V DC; 6.0 W at 125 V AC                                      |
| Digital inputs  |   |
| Number of digital inputs  | 16  |
| Digital inputs, parameterizable                                 | Yes   |
| Source/sink input   | Yes   |
| Input characteristic curve in accordance with IEC 61131, type 3 | Yes; At 24 V DC   |
| Input voltage   |   |
| • Rated value (DC)  | 24 V; 48 V, 125 V   |
| • Rated value (AC)  | 24 V; 48 V, 125 V (50 - 60 Hz)  |
| • for signal "0"  | -5 ... +5 V   |
| • for signal "1"  | +11 ... +146 V  |
| Input current   |   |
| • for signal "1", typ.  | 3 mA; At 24 V DC  |
| Input delay (for rated value of input voltage)                  |   |
| for standard inputs   |   |
| — parameterizable   | Yes; 0.05 / 0.1 / 0.4 / 1.6 / 3.2 / 12.8 / 20 ms parameterizable with DC, |

|   |   |
|---|---|
| — at "0" to "1", min.                                 | 20 ms fixed with AC   |
| — at "0" to "1", max.                                 | 0.05 ms   |
| — at "1" to "0", min.                                 | 20 ms   |
| — at "1" to "0", max.                                 | 0.05 ms   |
| — at "1" to "0", max.                                 | 20 ms   |
| <b>for interrupt inputs</b>                           |   |
| — parameterizable                                     | Yes   |
| <b>for technological functions</b>                    |   |
| — parameterizable                                     | No  |
| <b>Cable length</b>                                   |   |
| • shielded, max.                                      | 1 000 m   |
| • unshielded, max.                                    | 600 m   |
| <b>Encoder</b>  |   |
| <b>Connectable encoders</b>                           |   |
| • 2-wire sensor                                       | Yes   |
| — permissible quiescent current (2-wire sensor), max. | 1.5 mA  |
| <b>Interrupts/diagnostics/status information</b>      |   |
| Diagnostics function                                  | Yes   |
| <b>Alarms</b>   |   |
| • Diagnostic alarm                                    | Yes   |
| • Hardware interrupt                                  | Yes   |
| <b>Diagnoses</b>                                      |   |
| • Monitoring the supply voltage                       | No  |
| • Wire-break  | Yes; To I < 550 µA  |
| • Short-circuit                                       | No  |
| <b>Diagnostics indication LED</b>                     |   |
| • RUN LED   | Yes; green LED  |
| • ERROR LED   | Yes; red LED  |
| • Monitoring of the supply voltage (PWR-LED)          | No  |
| • Channel status display                              | Yes; green LED  |
| • for channel diagnostics                             | Yes; red LED  |
| • for module diagnostics                              | Yes; red LED  |
| <b>Potential separation</b>                           |   |
| <b>Potential separation channels</b>                  |   |
| • between the channels                                | Yes   |
| • between the channels, in groups of                  | 1   |
| • between the channels and backplane bus              | Yes   |
| <b>Permissible potential difference</b>               |   |
| between different circuits                            | 146 V DC/132 V AC   |
| <b>Isolation</b>                                      |   |
| Isolation tested with                                 | 2 000 V DC  |
| <b>Standards, approvals, certificates</b>             |   |
| Suitable for safety functions                         | No  |
| <b>Ambient conditions</b>                             |   |
| <b>Ambient temperature during operation</b>           |   |
| • horizontal installation, min.                       | 0 °C  |
| • horizontal installation, max.                       | 60 °C   |
| • vertical installation, min.                         | 0 °C  |
| • vertical installation, max.                         | 40 °C   |
| <b>Dimensions</b>                                     |   |
| Width   | 35 mm   |
| Height  | 147 mm  |
| Depth   | 129 mm  |
| <b>Weights</b>  |   |
| Weight, approx.                                       | 240 g   |
| <b>last modified:</b>                                 | 1/15/2021  |