




SIMATIC S7-1500 Digital input module, DI 16x24 V DC BA, 16 channels in groups of 16, input delay typ. 3.2 ms, input type 3 (IEC 61131); Delivery incl. front connector Push-in

| General information | |
|--|--------------------|
| Product type designation | DI 16 x 24 V DC BA |
| HW functional status | From FS01 |
| Firmware version | V1.0.0 |
| <ul style="list-style-type: none"> FW update possible | Yes |
| Product function | |
| <ul style="list-style-type: none"> I&M data | Yes; I&M0 to I&M3 |
| <ul style="list-style-type: none"> Isochronous mode | No |
| <ul style="list-style-type: none"> Prioritized startup | Yes |
| Engineering with | |
| <ul style="list-style-type: none"> STEP 7 TIA Portal configurable/integrated from version | V13 / V13 |
| <ul style="list-style-type: none"> STEP 7 configurable/integrated from version | V5.5 SP3 / - |
| <ul style="list-style-type: none"> PROFIBUS from GSD version/GSD revision | V1.0 / V5.1 |
| <ul style="list-style-type: none"> PROFINET from GSD version/GSD revision | V2.3 / - |
| Operating mode | |
| <ul style="list-style-type: none"> DI | Yes |
| <ul style="list-style-type: none"> Counter | No |
| <ul style="list-style-type: none"> MSI | Yes |
| Supply voltage | |
| Rated value (DC) | 24 V |
| permissible range, lower limit (DC) | 19.2 V |
| permissible range, upper limit (DC) | 28.8 V |
| Power | |
| Power available from the backplane bus | 1.05 W |
| Power loss | |
| Power loss, typ. | 1.8 W |
| Digital inputs | |
| Number of digital inputs | 16 |
| Digital inputs, parameterizable | No |
| Source/sink input | P-reading |
| Input characteristic curve in accordance with IEC 61131, type 3 | Yes |
| Input voltage | |
| <ul style="list-style-type: none"> Rated value (DC) | 24 V |
| <ul style="list-style-type: none"> for signal "0" | -30 to +5 V |
| <ul style="list-style-type: none"> for signal "1" | +11 to +30V |
| Input current | |
| <ul style="list-style-type: none"> for signal "1", typ. | 2.7 mA |
| Input delay (for rated value of input voltage) for standard inputs | |

| | |
|--|---|
| — parameterizable | No |
| — at "0" to "1", min. | 3 ms |
| — at "0" to "1", max. | 4 ms |
| — at "1" to "0", min. | 3 ms |
| — at "1" to "0", max. | 4 ms |
| for interrupt inputs | |
| — parameterizable | No |
| for technological functions | |
| — parameterizable | No |
| Cable length | |
| • shielded, max. | 1 000 m |
| • unshielded, max. | 600 m |
| Encoder | |
| Connectable encoders | |
| • 2-wire sensor | Yes |
| — permissible quiescent current (2-wire sensor), max. | 1.5 mA |
| Interrupts/diagnostics/status information | |
| Diagnostics function | No |
| Alarms | |
| • Diagnostic alarm | No |
| • Hardware interrupt | No |
| Diagnoses | |
| • Monitoring the supply voltage | No |
| • Wire-break | No |
| • Short-circuit | No |
| Diagnostics indication LED | |
| • 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 | No |
| • for module diagnostics | No |
| Potential separation | |
| Potential separation channels | |
| • between the channels | No |
| • between the channels, in groups of | 16 |
| • between the channels and backplane bus | Yes |
| Isolation | |
| Isolation tested with | 707 V DC (type test) |
| Standards, approvals, certificates | |
| Suitable for safety functions | No |
| Ambient conditions | |
| Ambient temperature during operation | |
| • horizontal installation, min. | -30 °C; from FS04 |
| • horizontal installation, max. | 60 °C |
| • vertical installation, min. | -30 °C; from FS04 |
| • vertical installation, max. | 40 °C |
| Altitude during operation relating to sea level | |
| • Installation altitude above sea level, max. | 5 000 m; Restrictions for installation altitudes > 2 000 m, see manual |
| Dimensions | |
| Width | 25 mm |
| Height | 147 mm |
| Depth | 129 mm |
| Weights | |
| Weight, approx. | 230 g |
| Other | |
| Note: | Supplied incl. 40-pole push-in front connectors |
| last modified: | 6/24/2021  |