# SIEMENS

SIMATIC ET 200SP, DIGITAL INPUT MODULE, DI 8X24VDC HIGH SPEED, PACKING UNIT: 1 PIECE, THREE ALTERNATIVE MODES: DI, OVERSAMPLING, 4 X COUNTER, FITS TO BU-TYPE A0, COLOR CODE CC01

| General information | |
|---|---|
| Product type designation | ET 200SP, DI 8x24VDC High Speed, VPE 1 |
| Firmware version | V1.0 |
| • FW update possible | Yes |
| usable BaseUnits | BU type A0 |
| Color code for module-specific color identification plate | CC01 |
| Product function | |
| • I&M data | Yes; I&M0 to I&M3 |
| Engineering with | |
| • STEP 7 TIA Portal configurable/integrated as of version | V13 SP1 |
| • STEP 7 configurable/integrated as of version | V5.5 SP3 / - |
| • PROFIBUS as of GSD version/GSD revision | GSD Revision 5 |
| • PROFINET as of GSD version/GSD revision | GSDML V2.3 |
| Operating mode | |
| • DI | Yes |
| • Counter | Yes |
| • Oversampling | Yes |

15.01.2016

| | |
|---|---|
| • MSI | No |

## Supply voltage

| | |
|---|---|
| Rated value (DC) | 24 V |
| permissible range, lower limit (DC) | 19.2 V |
| permissible range, upper limit (DC) | 28.8 V |
| Reverse polarity protection | Yes |

## Input current

| | |
|---|---|
| Current consumption, max. | 70 mA; without sensor supply |

## Encoder supply

### 24 V encoder supply

| | |
|---|---|
| • 24 V | Yes |
| • Short-circuit protection | Yes |
| • Output current, max. | 700 mA |

## Power loss

| | |
|---|---|
| Power loss, typ. | 1.5 W |

## Address area

### Address space per module

| | |
|---|---|
| • Address space per module, max. | 45 byte |
| • Inputs | 32 byte; 1 byte + 1 byte for QI information in DI mode; 32 bytes in Oversampling mode; 25 bytes in Counter mode |
| • Outputs | 20 byte; In count mode |

## Digital inputs

| | |
|---|---|
| Number of digital inputs | 8 |
| Pulse extension | Yes |
| • Length | 2 s; 50 ms, 100 ms, 200 ms, 500 ms, 1 s, 2 s |

### Digital input functions, parameterizable

| | |
|---|---|
| • Gate start/stop | Yes |
| • Freely usable digital input | Yes |
| • Counter | Yes |
| — Number, max. | 4 |
| — Counting frequency, max. | 10 kHz |
| — Counting width | 32 bit |
| — Counting direction up/down | Yes |
| • Digital input with oversampling | Yes |
| — Number, max. | 8 |
| — Values per cycle, max. | 32 |
| — Resolution, min. | 7.8125 µs |

### Input voltage

| | |
|---|---|
| • Type of input voltage | DC |
| • Rated value (DC) | 24 V |

| | |
|---|---|
| ● for signal "0" | -30 to +5V |
| ● for signal "1" | +11 to +30V |
| **Input current** | |
| ● for signal "1", typ. | 6 mA |
| **Input delay (for rated value of input voltage)** | |
| for standard inputs | |
| — parameterizable | Yes; none / 0.05 / 0.1 / 0.4 / 0.8 / 1.6 / 3.2 / 12.8 / 20 ms |
| for interrupt inputs | |
| — parameterizable | Yes |
| for counter/technological functions | |
| — parameterizable | Yes |
| **Cable length** | |
| ● shielded, max. | 50 m |
| ● unshielded, max. | 50 m |

## Encoder

| | |
|---|---|
| **Connectable encoders** | |
| ● 2-wire sensor | Yes |
| — permissible quiescent current (2-wire sensor), max. | 1.5 mA |

## Isochronous mode

| | |
|---|---|
| Isochronous operation (application synchronized up to terminal) | Yes |
| Bus cycle time (TDP), min. | 250 µs |
| Jitter, max. | 5 µs |

## Interrupts/diagnostics/status information

| | |
|---|---|
| **Alarms** | |
| ● Diagnostic alarm | Yes |
| ● Hardware interrupt | Yes |
| **Diagnostic messages** | |
| ● Diagnostic information readable | Yes |
| ● Diagnostics | Yes |
| ● Monitoring the supply voltage | Yes |
| — parameterizable | Yes |
| ● Monitoring of encoder power supply | Yes; Module-wise |
| ● Wire-break | No |
| ● Short-circuit | Yes; Module-wise |
| **Diagnostics indication LED** | |
| ● 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 |

| Potential separation | |
|---|---|
| Potential separation channels | |
| • between the channels | No |
| • between the channels and backplane bus | Yes |
| • between the channels and the power supply of the electronics | No |

| Permissible potential difference | |
|---|---|
| between different circuits | 75 V DC/60 V AC (base isolation) |

| Isolation | |
|---|---|
| Isolation tested with | 707 V DC (type test) |

| Dimensions | |
|---|---|
| Width | 15 mm |

| Weights | |
|---|---|
| Weight, approx. | 28 g |

| **last modified:** | 13.01.2016 |

15.01.2016