

SIMATIC ET 200SP, digital output module, DQ 8x 24VDC/0.5A High Feature suitable for BU type A0, Color code CC02, channel diagnostics



Figure similar

| General information                                                                                     |                                                |
|---------------------------------------------------------------------------------------------------------|------------------------------------------------|
| Product type designation                                                                                | DQ 8x24 V DC/0.5 A HF                          |
| Firmware version                                                                                        | V2.0                                           |
| <ul style="list-style-type: none"><li>FW update possible</li></ul>                                      | Yes                                            |
| usable BaseUnits                                                                                        | BU type A0                                     |
| Color code for module-specific color identification plate                                               | CC02                                           |
| Product function                                                                                        |                                                |
| <ul style="list-style-type: none"><li>I&amp;M data</li></ul>                                            | Yes; I&M0 to I&M3                              |
| Engineering with                                                                                        |                                                |
| <ul style="list-style-type: none"><li>STEP 7 TIA Portal configurable/integrated as of version</li></ul> | V13 SP1 / -                                    |
| <ul style="list-style-type: none"><li>STEP 7 configurable/integrated as of version</li></ul>            | V5.5 / -                                       |
| <ul style="list-style-type: none"><li>PCS 7 configurable/integrated as of version</li></ul>             | V8.1 SP1                                       |
| <ul style="list-style-type: none"><li>PROFIBUS as of GSD version/GSD revision</li></ul>                 | One GSD file each, Revision 3 and 5 and higher |
| <ul style="list-style-type: none"><li>PROFINET as of GSD version/GSD revision</li></ul>                 | GSDML V2.3                                     |
| Operating mode                                                                                          |                                                |

|                                             |                                                   |
|---------------------------------------------|---------------------------------------------------|
| • DQ                                        | Yes                                               |
| • DQ with energy-saving function            | No                                                |
| • PWM                                       | No                                                |
| • Oversampling                              | No                                                |
| • MSO                                       | Yes                                               |
| <b>Redundancy</b>                           |                                                   |
| • Redundancy capability                     | Yes                                               |
| <b>Supply voltage</b>                       |                                                   |
| 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                                               |
| <b>Output voltage</b>                       |                                                   |
| Rated value (DC)                            | 24 V                                              |
| <b>Power loss</b>                           |                                                   |
| Power loss, typ.                            | 1 W                                               |
| <b>Address area</b>                         |                                                   |
| Address space per module                    |                                                   |
| • Address space per module, max.            | 8 byte; 2 channels per submodule + QI information |
| <b>Digital outputs</b>                      |                                                   |
| Type of digital output                      | Source output (PNP, current-sourcing)             |
| Number of digital outputs                   | 8                                                 |
| Current-sinking                             | No                                                |
| Current-sourcing                            | Yes                                               |
| Short-circuit protection                    | Yes                                               |
| • Response threshold, typ.                  | 0.7 to 1.3 A                                      |
| Limitation of inductive shutdown voltage to | Typ. L+ (-50 V)                                   |
| Controlling a digital input                 | Yes                                               |
| <b>Switching capacity of the outputs</b>    |                                                   |
| • with resistive load, max.                 | 0.5 A                                             |
| • on lamp load, max.                        | 5 W                                               |
| <b>Load resistance range</b>                |                                                   |
| • lower limit                               | 48 $\Omega$                                       |
| • upper limit                               | 12 k $\Omega$                                     |
| <b>Output current</b>                       |                                                   |
| • for signal "1" rated value                | 0.5 A                                             |
| • for signal "0" residual current, max.     | 0.1 mA                                            |
| <b>Output delay with resistive load</b>     |                                                   |
| • "0" to "1", typ.                          | 50 $\mu$ s                                        |
| • "1" to "0", typ.                          | 100 $\mu$ s                                       |

|                                                                 |                                      |
|-----------------------------------------------------------------|--------------------------------------|
| Parallel switching of two outputs                               |                                      |
| • for uprating                                                  | No                                   |
| • for redundant control of a load                               | Yes                                  |
| Switching frequency                                             |                                      |
| • with resistive load, max.                                     | 100 Hz                               |
| • with inductive load, max.                                     | 2 Hz                                 |
| • on lamp load, max.                                            | 10 Hz                                |
| Total current of the outputs                                    |                                      |
| • Current per channel, max.                                     | 0.5 A                                |
| • Current per module, max.                                      | 4 A                                  |
| Total current of the outputs (per module)                       |                                      |
| horizontal installation                                         |                                      |
| — up to 60 °C, max.                                             | 4 A                                  |
| vertical installation                                           |                                      |
| — up to 50 °C, max.                                             | 4 A; in all other mounting positions |
| Cable length                                                    |                                      |
| • shielded, max.                                                | 1 000 m                              |
| • unshielded, max.                                              | 600 m                                |
| Isochronous mode                                                |                                      |
| Isochronous operation (application synchronized up to terminal) | Yes                                  |
| Execution and activation time (TCO), min.                       | 48 µs                                |
| Bus cycle time (TDP), min.                                      | 500 µs                               |
| Interrupts/diagnostics/status information                       |                                      |
| Diagnostics function                                            | Yes                                  |
| Substitute values connectable                                   | Yes                                  |
| Alarms                                                          |                                      |
| • Diagnostic alarm                                              | Yes                                  |
| Diagnostic messages                                             |                                      |
| • Monitoring the supply voltage                                 | Yes                                  |
| • Wire-break                                                    | Yes; channel by channel              |
| • Short-circuit                                                 | Yes; channel by channel              |
| • Group error                                                   | Yes                                  |
| Diagnostics indication LED                                      |                                      |
| • Monitoring of the supply voltage (PWR-LED)                    | Yes; green PWR LED                   |
| • Channel status display                                        | Yes; Green LED                       |
| • for channel diagnostics                                       | Yes; Red LED                         |
| • for module diagnostics                                        | Yes; green/red DIAG LED              |
| Potential separation                                            |                                      |
| Potential separation channels                                   |                                      |
| • between the channels                                          | No                                   |

- between the channels and backplane bus

Yes

## Isolation

Isolation tested with

707 V DC (type test)

## Dimensions

Width

15 mm

Height

73 mm

Depth

58 mm

## Weights

Weight, approx.

30 g

**last modified:**

04/06/2018