

SIMATIC ET 200SP, Digital output module, DQ 8x 24V DC/0,5A Sink Basic, Sink output (NPN, M-switching), Packing unit: 1 piece, fits to BU-type A0, Colour Code CC01, substitute value output, module diagnostics for: supply voltage



| General information                                       |                                                |
|-----------------------------------------------------------|------------------------------------------------|
| Product type designation                                  | DQ 8x24VDC/0,5A SNK BA                         |
| HW functional status                                      | From FS02                                      |
| Firmware version                                          | V0.0                                           |
| • FW update possible                                      | No                                             |
| 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 | V14                                            |
| • STEP 7 configurable/integrated as of version            | V5.5 SP3                                       |
| • PROFIBUS as of GSD version/GSD revision                 | One GSD file each, Revision 3 and 5 and higher |
| • PROFINET as of GSD version/GSD revision                 | GSDML V2.3                                     |
| Operating mode                                            |                                                |
| • DQ                                                      | Yes                                            |
| • DQ with energy-saving function                          | No                                             |

|                                             |                   |
|---------------------------------------------|-------------------|
| • PWM                                       | No                |
| • Oversampling                              | No                |
| • MSO                                       | No                |
| Redundancy                                  |                   |
| • Redundancy capability                     | Yes               |
| Supply voltage                              |                   |
| Rated value (DC)                            | 24 V              |
| permissible range, lower limit (DC)         | 19.2 V            |
| permissible range, upper limit (DC)         | 28.8 V            |
| Output voltage                              |                   |
| Rated value (DC)                            | 24 V              |
| Power loss                                  |                   |
| Power loss, typ.                            | 1.5 W             |
| Address area                                |                   |
| Address space per module                    |                   |
| • Outputs                                   | 1 byte            |
| Hardware configuration                      |                   |
| Automatic encoding                          | Yes               |
| • Mechanical coding element                 | Yes               |
| Digital outputs                             |                   |
| Type of digital output                      | Sink output (NPN) |
| Number of digital outputs                   | 8                 |
| Current-sinking                             | Yes               |
| Digital outputs, parameterizable            | Yes               |
| Short-circuit protection                    | Yes               |
| • Response threshold, typ.                  | 1.5 A             |
| Limitation of inductive shutdown voltage to | Typ. 47 V         |
| Controlling a digital input                 | Yes               |
| Switching capacity of the outputs           |                   |
| • with resistive load, max.                 | 0.5 A             |
| • on lamp load, max.                        | 5 W               |
| Load resistance range                       |                   |
| • lower limit                               | 48 $\Omega$       |
| • upper limit                               | 3 400 $\Omega$    |
| Output current                              |                   |
| • for signal "1" rated value                | 0.5 A             |
| • for signal "1" permissible range, max.    | 0.5 A             |
| • for signal "0" residual current, max.     | 5 $\mu$ A         |
| Output delay with resistive load            |                   |
| • "0" to "1", max.                          | 300 $\mu$ s       |

|                                                                 |                         |
|-----------------------------------------------------------------|-------------------------|
| • "1" to "0", max.                                              | 600 µs                  |
| <b>Parallel switching of two outputs</b>                        |                         |
| • for uprating                                                  | No                      |
| • for redundant control of a load                               | Yes                     |
| <b>Switching frequency</b>                                      |                         |
| • with resistive load, max.                                     | 100 Hz                  |
| • with inductive load, max.                                     | 0.5 Hz                  |
| • on lamp load, max.                                            | 10 Hz                   |
| <b>Total current of the outputs</b>                             |                         |
| • Current per channel, max.                                     | 0.5 A                   |
| • Current per module, max.                                      | 4 A                     |
| <b>Total current of the outputs (per module)</b>                |                         |
| <b>horizontal installation</b>                                  |                         |
| — up to 60 °C, max.                                             | 4 A                     |
| <b>vertical installation</b>                                    |                         |
| — up to 50 °C, max.                                             | 4 A                     |
| <b>Cable length</b>                                             |                         |
| • shielded, max.                                                | 1 000 m                 |
| • unshielded, max.                                              | 600 m                   |
| <b>Isochronous mode</b>                                         |                         |
| Isochronous operation (application synchronized up to terminal) | No                      |
| <b>Interrupts/diagnostics/status information</b>                |                         |
| Diagnostics function                                            | Yes                     |
| Substitute values connectable                                   | Yes                     |
| <b>Alarms</b>                                                   |                         |
| • Diagnostic alarm                                              | Yes                     |
| <b>Diagnostic messages</b>                                      |                         |
| • Monitoring the supply voltage                                 | Yes                     |
| • Wire-break                                                    | No                      |
| • Short-circuit                                                 | No                      |
| • Group error                                                   | Yes                     |
| <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                     |

|                                                 |                                                                  |
|-------------------------------------------------|------------------------------------------------------------------|
| 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.                 | -25 °C                                                           |
| • horizontal installation, max.                 | 60 °C                                                            |
| • vertical installation, min.                   | -25 °C                                                           |
| • vertical installation, max.                   | 50 °C                                                            |
| Altitude during operation relating to sea level |                                                                  |
| • Installation altitude above sea level, max.   | 2 000 m; On request: Installation altitudes greater than 2 000 m |
| Dimensions                                      |                                                                  |
| Width                                           | 15 mm                                                            |
| Height                                          | 73 mm                                                            |
| Depth                                           | 58 mm                                                            |
| Weights                                         |                                                                  |
| Weight, approx.                                 | 30 g                                                             |
| last modified:                                  | 05/02/2019                                                       |