



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                              |
| • Isochronous mode                                        | No                                             |
| Engineering with                                          |                                                |
| • STEP 7 TIA Portal configurable/integrated from version  | V14                                            |
| • STEP 7 configurable/integrated from version             | V5.5 SP3                                       |
| • PROFIBUS from GSD version/GSD revision                  | One GSD file each, Revision 3 and 5 and higher |
| • PROFINET from 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                                         |
| Input current                                             |                                                |
| Current consumption (rated value)                         | 30 mA                                          |
| Current consumption, max.                                 | 30 mA                                          |
| output voltage / header                                   |                                                |
| 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                                            |

|                                                  |                         |
|--------------------------------------------------|-------------------------|
| • Type of mechanical coding element              | type B                  |
| <b>Digital outputs</b>                           |                         |
| 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                     |
| <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 Ω                    |
| • upper limit                                    | 3 400 Ω                 |
| <b>Output current</b>                            |                         |
| • for signal "1" rated value                     | 0.5 A                   |
| • for signal "1" permissible range, max.         | 0.5 A                   |
| • for signal "0" residual current, max.          | 5 µA                    |
| <b>Output delay with resistive load</b>          |                         |
| • "0" to "1", max.                               | 300 µs                  |
| • "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> |                         |
| horizontal installation                          |                         |
| — up to 60 °C, max.                              | 4 A                     |
| vertical installation                            |                         |
| — up to 50 °C, max.                              | 4 A                     |
| <b>Cable length</b>                              |                         |
| • shielded, max.                                 | 1 000 m                 |
| • unshielded, max.                               | 600 m                   |
| <b>Interrupts/diagnostics/status information</b> |                         |
| Diagnostics function                             | Yes                     |
| Substitute values connectable                    | Yes                     |
| <b>Alarms</b>                                    |                         |
| • Diagnostic alarm                               | Yes                     |
| <b>Diagnoses</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                                                                     |
| Ecological footprint                                           |                                                                        |
| • environmental product declaration                            | Yes                                                                    |
| Global warming potential                                       |                                                                        |
| — global warming potential, (total) [CO2 eq]                   | 20.4 kg                                                                |
| — global warming potential, (during production) [CO2 eq]       | 3.16 kg                                                                |
| — global warming potential, (during operation) [CO2 eq]        | 17.5 kg                                                                |
| — global warming potential, (after end of life cycle) [CO2 eq] | -0.221 kg                                                              |
| 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.                  | 5 000 m; Restrictions for installation altitudes > 2 000 m, see manual |
| Dimensions                                                     |                                                                        |
| Width                                                          | 15 mm                                                                  |
| Height                                                         | 73 mm                                                                  |
| Depth                                                          | 58 mm                                                                  |
| Weights                                                        |                                                                        |
| Weight, approx.                                                | 30 g                                                                   |

| Classifications |        |         |                |
|-----------------|--------|---------|----------------|
|                 |        | Version | Classification |
|                 | eClass | 14      | 27-24-26-04    |
|                 | eClass | 12      | 27-24-26-04    |
|                 | eClass | 9.1     | 27-24-26-04    |
|                 | eClass | 9       | 27-24-26-04    |
|                 | eClass | 8       | 27-24-26-04    |
|                 | eClass | 7.1     | 27-24-26-04    |
|                 | eClass | 6       | 27-24-26-04    |
|                 | ETIM   | 9       | EC001599       |
|                 | ETIM   | 8       | EC001599       |
|                 | ETIM   | 7       | EC001599       |
|                 | IDEA   | 4       | 3566           |
|                 | UNSPSC | 15      | 32-15-17-05    |

| Approvals / Certificates |     |
|--------------------------|-----|
| General Product Approval | EMV |



| Marine / Shipping                                  | other                        | Environment                                 |
|----------------------------------------------------|------------------------------|---------------------------------------------|
| <a href="#">CCS (China Classification Society)</a> | <a href="#">Confirmation</a> | <a href="#">Environmental Confirmations</a> |

