



SIMATIC ET 200BL, digital output module, DQ 4x24 V DC/2 A, output characteristic according to IEC 61131 source output (PNP,sourcing output) packing unit: 1 unit, color code CC02

| General information                                      |                                                                                      |
|----------------------------------------------------------|--------------------------------------------------------------------------------------|
| Product type designation                                 | DQ 4x24VDC/2A                                                                        |
| HW functional status                                     | from FS01                                                                            |
| Firmware version                                         |                                                                                      |
| • FW update possible                                     | No                                                                                   |
| Color code for module-specific color-coded label         | CC02                                                                                 |
| Product function                                         |                                                                                      |
| • I&M data                                               | Yes; I&M0 to I&M3                                                                    |
| • Isochronous mode                                       | No                                                                                   |
| Engineering with                                         |                                                                                      |
| • STEP 7 TIA Portal configurable/integrated from version | STEP 7 V18 or higher; MicroWin V3.0 or higher; Configuration in ES via GSDML;        |
| • PROFINET from GSD version/GSD revision                 | GSDML V2.45                                                                          |
| Operating mode                                           |                                                                                      |
| • DQ                                                     | Yes                                                                                  |
| • DQ with energy-saving function                         | No                                                                                   |
| • PWM                                                    | No                                                                                   |
| • Cam control (switching at comparison values)           | No                                                                                   |
| • Oversampling                                           | No                                                                                   |
| • MSO                                                    | No                                                                                   |
| Supply voltage                                           |                                                                                      |
| Rated value (DC)                                         | 24 V                                                                                 |
| permissible range, lower limit (DC)                      | 20.4 V                                                                               |
| permissible range, upper limit (DC)                      | 28.8 V                                                                               |
| Reverse polarity protection                              | Yes                                                                                  |
| external protection for power supply lines               | Yes; 24 V DC/10 A miniature circuit breaker with type B or C tripping characteristic |
| Input current                                            |                                                                                      |
| Current consumption (rated value)                        | 10 mA                                                                                |
| Current consumption, max.                                | 8.1 A; with 8 A output to load                                                       |
| Output voltage                                           |                                                                                      |
| Rated value (DC)                                         | 24 V                                                                                 |
| Current carrying capacity                                |                                                                                      |
| For P1 and P2 bus, max.                                  | 10 A                                                                                 |
| Power loss                                               |                                                                                      |
| Power loss, typ.                                         | 0.4 W; rated voltage, 50 % load, 50 % active channels                                |
| Address area                                             |                                                                                      |
| Address space per module                                 |                                                                                      |
| • Address space per module, max.                         | 1 byte                                                                               |

|                                                  |                                                                                                                          |
|--------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| • Outputs                                        | 1 byte                                                                                                                   |
| <b>Hardware configuration</b>                    |                                                                                                                          |
| Automatic encoding                               | No                                                                                                                       |
| • Mechanical coding element                      | No                                                                                                                       |
| <b>Formation of potential groups</b>             |                                                                                                                          |
| • support of potential groups                    | No                                                                                                                       |
| <b>Digital outputs</b>                           |                                                                                                                          |
| Type of digital output                           | Source output (PNP, current-sourcing)                                                                                    |
| Number of digital outputs                        | 4                                                                                                                        |
| Current-sinking                                  | No                                                                                                                       |
| Current-sourcing                                 | Yes                                                                                                                      |
| Digital outputs, parameterizable                 | Yes                                                                                                                      |
| output type acc. to IEC 61131, type 2            | Yes                                                                                                                      |
| Short-circuit protection                         | Yes; per channel, electronic                                                                                             |
| • Response threshold, typ.                       | 3.2 A; 2.5 A to 3.7 A                                                                                                    |
| Limitation of inductive shutdown voltage to      | Type. L+ (-42 V)                                                                                                         |
| Controlling a digital input                      | Yes                                                                                                                      |
| <b>Switching capacity of the outputs</b>         |                                                                                                                          |
| • with resistive load, max.                      | 2 A                                                                                                                      |
| • with inductive load, max.                      | 2 A                                                                                                                      |
| • on lamp load, max.                             | 10 W                                                                                                                     |
| <b>Load resistance range</b>                     |                                                                                                                          |
| • lower limit                                    | 12 Ω                                                                                                                     |
| • upper limit                                    | 3 400 Ω                                                                                                                  |
| <b>Output current</b>                            |                                                                                                                          |
| • for signal "1" rated value                     | 2 A                                                                                                                      |
| • for signal "1" permissible range, max.         | 2 A                                                                                                                      |
| • for signal "0" residual current, max.          | 20 µA                                                                                                                    |
| <b>Output delay with resistive load</b>          |                                                                                                                          |
| • "0" to "1", typ.                               | 55 µs                                                                                                                    |
| • "1" to "0", typ.                               | 70 µs                                                                                                                    |
| <b>Parallel switching of two outputs</b>         |                                                                                                                          |
| • for uprating                                   | No                                                                                                                       |
| <b>Switching frequency</b>                       |                                                                                                                          |
| • with resistive load, max.                      | 100 Hz                                                                                                                   |
| • with inductive load, max.                      | 0.1 Hz; higher frequencies are possible, see Equipment Manual "Maximum permitted switching frequency of inductive loads" |
| • on lamp load, max.                             | 10 Hz                                                                                                                    |
| <b>Total current of the outputs</b>              |                                                                                                                          |
| • Current per channel, max.                      | 2 A                                                                                                                      |
| • Current per module, max.                       | 8 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                                    | No                                                                                                                       |
| <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>                                    |                                                                                        |
| between backplane bus and supply voltage                       | Yes                                                                                    |
| <b>Potential separation digital outputs</b>                    |                                                                                        |
| • between the channels                                         | No                                                                                     |
| • between the channels and backplane bus                       | Yes                                                                                    |
| • between the channels and the power supply of the electronics | No                                                                                     |
| <b>Isolation</b>                                               |                                                                                        |
| Isolation tested with                                          | 500 V AC/707 V DC, type test                                                           |
| <b>Standards, approvals, certificates</b>                      |                                                                                        |
| Suitable for safety functions                                  | No                                                                                     |
| <b>Ecological footprint</b>                                    |                                                                                        |
| • environmental product declaration                            | Yes                                                                                    |
| <b>Global warming potential</b>                                |                                                                                        |
| — global warming potential, (total) [CO2 eq]                   | 28.7 kg                                                                                |
| — global warming potential, (during production) [CO2 eq]       | 4.87 kg                                                                                |
| — global warming potential, (during operation) [CO2 eq]        | 24.5 kg                                                                                |
| — global warming potential, (after end of life cycle) [CO2 eq] | -0.623 kg                                                                              |
| <b>Use in hazardous areas</b>                                  |                                                                                        |
| • EAC Ex                                                       | No                                                                                     |
| <b>Ambient conditions</b>                                      |                                                                                        |
| <b>Ambient temperature during operation</b>                    |                                                                                        |
| • horizontal installation, min.                                | -30 °C                                                                                 |
| • horizontal installation, max.                                | 60 °C                                                                                  |
| • vertical installation, min.                                  | -30 °C                                                                                 |
| • vertical installation, max.                                  | 50 °C                                                                                  |
| <b>Altitude during operation relating to sea level</b>         |                                                                                        |
| • Installation altitude above sea level, max.                  | 5 000 m; restrictions for installation altitudes > 2 000 m, see ET 200BL system manual |
| <b>Connection method</b>                                       |                                                                                        |
| <b>Terminals</b>                                               |                                                                                        |
| • Conductor cross-section, min.                                | 0.14 mm <sup>2</sup> ; follow detailed information in System manual of ET 200BL        |
| • Conductor cross-section, max.                                | 2.5 mm <sup>2</sup> ; follow detailed information in System manual of ET 200BL         |
| • Number of process terminals to I/O module                    | 16                                                                                     |
| • Number of terminals with connection to P1 and P2 bus         | 0                                                                                      |
| <b>Dimensions</b>                                              |                                                                                        |
| Width                                                          | 15 mm                                                                                  |
| Height                                                         | 117 mm                                                                                 |
| Depth                                                          | 74 mm                                                                                  |
| <b>Weights</b>                                                 |                                                                                        |
| Weight, approx.                                                | 80 g                                                                                   |
| <b>Classifications</b>                                         |                                                                                        |

|        | Version | Classification |
|--------|---------|----------------|
| eClass | 16      | 27-24-26-04    |
| 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   | 10      | EC001599       |
| ETIM   | 9       | EC001599       |
| ETIM   | 8       | EC001599       |
| ETIM   | 7       | EC001599       |

Approvals / Certificates

General Product Approval



[China RoHS](#)



|                               |     |             |
|-------------------------------|-----|-------------|
| General Product Ap-<br>proval | EMV | Environment |
|-------------------------------|-----|-------------|



last modified: 3/25/2026 