



Figure similar

SIMATIC S7-1500, digital output module DQ 8x230 V AC/2 A ST; TRIAC; 8 channels in groups of 1; 2 A per group; Substitute value: Front connector (screw terminals or push-in) to be ordered separately

| General information                                      |                               |
|----------------------------------------------------------|-------------------------------|
| Product type designation                                 | DQ 8x230 V AC/2A ST (triac)   |
| HW functional status                                     | From FS01                     |
| Firmware version                                         | V2.2.0                        |
| • FW update possible                                     | Yes                           |
| Product function                                         |                               |
| • I&M data                                               | Yes; I&M0 to I&M3             |
| • Isochronous mode                                       | No                            |
| • Prioritized startup                                    | Yes                           |
| Engineering with                                         |                               |
| • STEP 7 TIA Portal configurable/integrated from version | V12 / V12                     |
| • STEP 7 configurable/integrated from version            | V5.5 SP3 / -                  |
| • PROFIBUS from GSD version/GSD revision                 | V1.0 / V5.1                   |
| • PROFINET from GSD version/GSD revision                 | V2.3 / -                      |
| Operating mode                                           |                               |
| • DQ                                                     | Yes                           |
| • DQ with energy-saving function                         | No                            |
| • PWM                                                    | No                            |
| • Oversampling                                           | No                            |
| • MSO                                                    | Yes                           |
| • Integrated operating cycle counter                     | Yes; FW V2.2.0 or higher      |
| output voltage / header                                  |                               |
| Rated value (AC)                                         | 230 V; 120/230 V AC, 50/60 Hz |
| Power                                                    |                               |
| Power available from the backplane bus                   | 0.9 W                         |
| Power loss                                               |                               |
| Power loss, typ.                                         | 10.8 W                        |
| Digital outputs                                          |                               |
| Type of digital output                                   | Triac                         |
| Number of digital outputs                                | 8                             |
| Current-sourcing                                         | Yes                           |
| Digital outputs, parameterizable                         | Yes                           |
| Short-circuit protection                                 | No                            |
| • built-in fuse                                          | 6.3 A melting fuse, slow-blow |
| Size of motor starters according to NEMA, max.           | 5                             |
| Switching capacity of the outputs                        |                               |
| • with resistive load, max.                              | 2 A                           |
| • on lamp load, max.                                     | 50 W                          |
| Output voltage                                           |                               |

|                                                  |                                                                                    |
|--------------------------------------------------|------------------------------------------------------------------------------------|
| • for signal "1", min.                           | L1 (-1.5 V) at maximum output current; L1 (-8.5 V) at minimum output current       |
| <b>Output current</b>                            |                                                                                    |
| • for signal "1" rated value                     | 2 A                                                                                |
| • for signal "1" permissible range, min.         | 10 mA                                                                              |
| • for signal "1" permissible range, max.         | 15 A; max. 1 AC cycle                                                              |
| • for signal "0" residual current, max.          | 2 mA                                                                               |
| <b>Output delay with resistive load</b>          |                                                                                    |
| • "0" to "1", max.                               | 1 AC cycle                                                                         |
| • "1" to "0", max.                               | 1 AC cycle                                                                         |
| <b>Parallel switching of two outputs</b>         |                                                                                    |
| • for logic links                                | No                                                                                 |
| • for uprating                                   | No                                                                                 |
| • for redundant control of a load                | Yes                                                                                |
| <b>Switching frequency</b>                       |                                                                                    |
| • with resistive load, max.                      | 10 Hz                                                                              |
| • with inductive load, max.                      | 0.5 Hz                                                                             |
| • on lamp load, max.                             | 1 Hz                                                                               |
| <b>Total current of the outputs</b>              |                                                                                    |
| • Current per channel, max.                      | 2 A; see additional description in the manual                                      |
| • Current per group, max.                        | 2 A; see additional description in the manual                                      |
| • Current per module, max.                       | 10 A; see additional description in the manual                                     |
| <b>Cable length</b>                              |                                                                                    |
| • shielded, max.                                 | 1 000 m                                                                            |
| • unshielded, max.                               | 600 m                                                                              |
| <b>Interrupts/diagnostics/status information</b> |                                                                                    |
| Diagnostics function                             | No                                                                                 |
| Substitute values connectable                    | Yes                                                                                |
| <b>Alarms</b>                                    |                                                                                    |
| • Diagnostic alarm                               | No                                                                                 |
| • Maintenance interrupt                          | Yes; maintenance alarm for switching cycle counter                                 |
| <b>Diagnoses</b>                                 |                                                                                    |
| • Monitoring the supply voltage                  | No                                                                                 |
| • Wire-break                                     | No                                                                                 |
| • Short-circuit                                  | No                                                                                 |
| <b>Diagnostics indication LED</b>                |                                                                                    |
| • RUN LED                                        | Yes; green LED                                                                     |
| • ERROR LED                                      | Yes; red LED                                                                       |
| • Monitoring of the supply voltage (PWR-LED)     | No                                                                                 |
| • Channel status display                         | Yes; green LED                                                                     |
| • for channel diagnostics                        | No                                                                                 |
| • for module diagnostics                         | Yes; red LED                                                                       |
| <b>Potential separation</b>                      |                                                                                    |
| <b>Potential separation channels</b>             |                                                                                    |
| • between the channels                           | Yes                                                                                |
| • between the channels, in groups of             | 1                                                                                  |
| • between the channels and backplane bus         | Yes                                                                                |
| • Between the channels and load voltage L1       | Yes                                                                                |
| <b>Permissible potential difference</b>          |                                                                                    |
| between different circuits                       | 250 V AC between the channels and the backplane bus; 500 V AC between the channels |
| <b>Isolation</b>                                 |                                                                                    |
| Isolation tested with                            | 3 100 V DC                                                                         |
| <b>Standards, approvals, certificates</b>        |                                                                                    |
| Suitable for safety functions                    | No                                                                                 |
| <b>Ambient conditions</b>                        |                                                                                    |
| <b>Ambient temperature during operation</b>      |                                                                                    |
| • horizontal installation, min.                  | 0 °C                                                                               |
| • horizontal installation, max.                  | 60 °C                                                                              |
| • vertical installation, min.                    | 0 °C                                                                               |
| • vertical installation, max.                    | 40 °C                                                                              |

| Dimensions      |        |
|-----------------|--------|
| Width           | 35 mm  |
| Height          | 147 mm |
| Depth           | 129 mm |
| Weights         |        |
| Weight, approx. | 290 g  |

last modified: 2/10/2022 