



SIMATIC ET 200SP, Relay module, RQ NO 4x 120V DC..230VAC/5A ST. 4 normally open contacts, isolated contacts, packing unit: 1 piece, fits to BU-type B0 and B1, Colour Code CC40, substitute value output, module diagnostics for: supply voltage

| General information                                       |                                                |
|-----------------------------------------------------------|------------------------------------------------|
| Product type designation                                  | RQ 4x120 VDC ... 230 VAC/5 A NO ST             |
| HW functional status                                      | From FS02                                      |
| Firmware version                                          | V0.0                                           |
| • FW update possible                                      | No                                             |
| usable BaseUnits                                          | BU type B0, B1                                 |
| Color code for module-specific color identification plate | CC40                                           |
| 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                                       |
| • PCS 7 configurable/integrated from version              | V8.1 SP1                                       |
| • 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                                         |
| Reverse polarity protection                               | Yes                                            |
| Input current                                             |                                                |
| Current consumption (rated value)                         | 55 mA; without load                            |
| output voltage / header                                   |                                                |
| Rated value (AC)                                          | 230 V                                          |
| Power loss                                                |                                                |
| Power loss, typ.                                          | 1.5 W                                          |
| Address area                                              |                                                |
| Address space per module                                  |                                                |
| • Inputs                                                  | + 1 byte for QI information                    |
| • Outputs                                                 | 1 byte                                         |
| Hardware configuration                                    |                                                |

|                                                                    |                                                                                               |
|--------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| Automatic encoding                                                 | Yes                                                                                           |
| • Mechanical coding element                                        | Yes                                                                                           |
| • Type of mechanical coding element                                | type C                                                                                        |
| Selection of BaseUnit for connection variants                      |                                                                                               |
| • 2-wire connection                                                | BU type B1                                                                                    |
| • 3-wire connection                                                | BU type B0                                                                                    |
| <b>Digital outputs</b>                                             |                                                                                               |
| Type of digital output                                             | Relays                                                                                        |
| Number of digital outputs                                          | 4                                                                                             |
| Current-sinking                                                    | Yes                                                                                           |
| Current-sourcing                                                   | Yes                                                                                           |
| Digital outputs, parameterizable                                   | Yes                                                                                           |
| Short-circuit protection                                           | No                                                                                            |
| Parallel switching of two outputs                                  |                                                                                               |
| • for logic links                                                  | Yes                                                                                           |
| • for uprating                                                     | No                                                                                            |
| • for redundant control of a load                                  | Yes                                                                                           |
| Switching frequency                                                |                                                                                               |
| • with resistive load, max.                                        | 2 Hz                                                                                          |
| • with inductive load (acc. to IEC 60947-5-1, DC13), max.          | 0.5 Hz                                                                                        |
| • with inductive load (acc. to IEC 60947-5-1, AC15), max.          | 0.5 Hz                                                                                        |
| • on lamp load, max.                                               | 2 Hz                                                                                          |
| Total current of the outputs                                       |                                                                                               |
| • Current per channel, max.                                        | 5 A                                                                                           |
| • Current per module, max.                                         | 20 A                                                                                          |
| Total current of the outputs (per module)                          |                                                                                               |
| horizontal installation                                            |                                                                                               |
| — up to 50 °C, max.                                                | 20 A                                                                                          |
| — up to 60 °C, max.                                                | 16 A                                                                                          |
| vertical installation                                              |                                                                                               |
| — up to 40 °C, max.                                                | 20 A                                                                                          |
| — up to 50 °C, max.                                                | 16 A                                                                                          |
| Relay outputs                                                      |                                                                                               |
| • Number of relay outputs                                          | 4                                                                                             |
| • Rated supply voltage of relay coil L+ (DC)                       | 24 V                                                                                          |
| • Current consumption of relays (coil current of all relays), max. | 40 mA                                                                                         |
| • external protection for relay outputs                            | Yes, with miniature fuse max. 6 A tripping current and quick-response tripping characteristic |
| • Number of operating cycles, max.                                 | 7 000 000; see additional description in the manual                                           |
| Switching capacity of contacts                                     |                                                                                               |
| — with inductive load, max.                                        | 2 A; see additional description in the manual                                                 |
| — with resistive load, max.                                        | 5 A; see additional description in the manual                                                 |
| — Thermal continuous current, max.                                 | 5 A; Max. 1 385 VA, 150 W                                                                     |
| — Switching current, min.                                          | 100 mA; 5 V DC                                                                                |
| — Rated switching voltage (DC)                                     | 24 V DC to 120 V DC                                                                           |
| — Rated switching voltage (AC)                                     | 24V AC to 230V AC                                                                             |
| Cable length                                                       |                                                                                               |
| • shielded, max.                                                   | 1 000 m                                                                                       |
| • unshielded, max.                                                 | 200 m                                                                                         |
| <b>Interrupts/diagnostics/status information</b>                   |                                                                                               |
| Diagnostics function                                               | Yes                                                                                           |
| Substitute values connectable                                      | Yes                                                                                           |
| Alarms                                                             |                                                                                               |
| • Diagnostic alarm                                                 | Yes                                                                                           |
| Diagnoses                                                          |                                                                                               |
| • Monitoring the supply voltage                                    | Yes                                                                                           |
| • Wire-break                                                       | No                                                                                            |
| • Short-circuit                                                    | No                                                                                            |
| Diagnostics indication LED                                         |                                                                                               |
| • Monitoring of the supply voltage (PWR-LED)                       | Yes; green PWR LED                                                                            |

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| <ul style="list-style-type: none"> <li>• Channel status display</li> <li>• for channel diagnostics</li> <li>• for module diagnostics</li> </ul> | Yes; green LED<br>No<br>Yes; green/red DIAG LED                  |
| <b>Potential separation</b>                                                                                                                     |                                                                  |
| Potential separation channels                                                                                                                   |                                                                  |
| <ul style="list-style-type: none"> <li>• between the channels</li> </ul>                                                                        | Yes                                                              |
| <ul style="list-style-type: none"> <li>• between the channels and backplane bus</li> </ul>                                                      | Yes                                                              |
| <ul style="list-style-type: none"> <li>• between the channels and the power supply of the electronics</li> </ul>                                | Yes                                                              |
| <b>Permissible potential difference</b>                                                                                                         |                                                                  |
| between channels and backplane bus/supply voltage                                                                                               | 240 V AC                                                         |
| <b>Isolation</b>                                                                                                                                |                                                                  |
| Isolation tested with                                                                                                                           | 2 500 V DC (type test)                                           |
| tested with                                                                                                                                     |                                                                  |
| <ul style="list-style-type: none"> <li>• between channels and backplane bus/supply voltage</li> </ul>                                           | 2 500 V DC                                                       |
| <ul style="list-style-type: none"> <li>• between backplane bus and supply voltage</li> </ul>                                                    | 707 V DC (type test)                                             |
| <b>Standards, approvals, certificates</b>                                                                                                       |                                                                  |
| Suitable for safety functions                                                                                                                   | No                                                               |
| <b>Ambient conditions</b>                                                                                                                       |                                                                  |
| Ambient temperature during operation                                                                                                            |                                                                  |
| <ul style="list-style-type: none"> <li>• horizontal installation, min.</li> </ul>                                                               | -30 °C                                                           |
| <ul style="list-style-type: none"> <li>• horizontal installation, max.</li> </ul>                                                               | 60 °C                                                            |
| <ul style="list-style-type: none"> <li>• vertical installation, min.</li> </ul>                                                                 | -30 °C                                                           |
| <ul style="list-style-type: none"> <li>• vertical installation, max.</li> </ul>                                                                 | 50 °C                                                            |
| Altitude during operation relating to sea level                                                                                                 |                                                                  |
| <ul style="list-style-type: none"> <li>• Installation altitude above sea level, max.</li> </ul>                                                 | 2 000 m; On request: Installation altitudes greater than 2 000 m |
| <b>Dimensions</b>                                                                                                                               |                                                                  |
| Width                                                                                                                                           | 20 mm                                                            |
| Height                                                                                                                                          | 73 mm                                                            |
| Depth                                                                                                                                           | 58 mm                                                            |
| <b>Weights</b>                                                                                                                                  |                                                                  |
| Weight, approx.                                                                                                                                 | 40 g                                                             |

**last modified:** 3/12/2024 