



SIMATIC S7-400, digital output SM 422, isolated 16 DO; 24 V DC, 2 A

Figure similar

| Supply voltage                                            |                                                |
|-----------------------------------------------------------|------------------------------------------------|
| Load voltage L+                                           |                                                |
| • Rated value (DC)                                        | 24 V                                           |
| • permissible range, lower limit (DC)                     | 20.4 V                                         |
| • permissible range, upper limit (DC)                     | 28.8 V                                         |
| Input current                                             |                                                |
| from load voltage L+ (without load), max.                 | 30 mA                                          |
| from backplane bus 5 V DC, max.                           | 160 mA                                         |
| Power loss                                                |                                                |
| Power loss, typ.                                          | 5 W                                            |
| Digital outputs                                           |                                                |
| Number of digital outputs                                 | 16                                             |
| Short-circuit protection                                  | Yes; Clocked electronically                    |
| • Response threshold, typ.                                | 2.8 to 6 A                                     |
| Limitation of inductive shutdown voltage to               | -30 V                                          |
| Controlling a digital input                               | Yes; possible                                  |
| Switching capacity of the outputs                         |                                                |
| • on lamp load, max.                                      | 10 W                                           |
| Load resistance range                                     |                                                |
| • lower limit                                             | 24 Ω                                           |
| • upper limit                                             | 4 kΩ                                           |
| Output voltage                                            |                                                |
| • for signal "1", min.                                    | L+ (-0.5 V)                                    |
| Output current                                            |                                                |
| • for signal "1" rated value                              | 2 A                                            |
| • for signal "1" permissible range, min.                  | 5 mA                                           |
| • for signal "1" permissible range, max.                  | 2.4 A                                          |
| • for signal "0" residual current, max.                   | 0.5 mA                                         |
| Output delay with resistive load                          |                                                |
| • "0" to "1", max.                                        | 1 ms                                           |
| • "1" to "0", max.                                        | 1 ms                                           |
| Parallel switching of two outputs                         |                                                |
| • for uprating                                            | No; Not possible                               |
| • for redundant control of a load                         | Yes; possible (only outputs of the same group) |
| Switching frequency                                       |                                                |
| • with resistive load, max.                               | 100 Hz                                         |
| • with inductive load, max.                               | 0.1 Hz                                         |
| • with inductive load (acc. to IEC 60947-5-1, DC13), max. | 0.2 Hz; 0.2 Hz at 1 A; 0.1 Hz at 2 A           |
| • on lamp load, max.                                      | 10 Hz                                          |

|                                                  |                              |
|--------------------------------------------------|------------------------------|
| <b>Total current of the outputs (per group)</b>  |                              |
| all mounting positions                           |                              |
| — up to 40 °C, max.                              | 3 A                          |
| — up to 60 °C, max.                              | 2 A; 2 adjacent outputs each |
| <b>Cable length</b>                              |                              |
| • shielded, max.                                 | 1 000 m                      |
| • unshielded, max.                               | 600 m                        |
| <b>Interrupts/diagnostics/status information</b> |                              |
| Diagnostics function                             | No                           |
| <b>Potential separation</b>                      |                              |
| Potential separation digital outputs             |                              |
| • between the channels                           | Yes                          |
| • between the channels, in groups of             | 8                            |
| • between the channels and backplane bus         | Yes                          |
| <b>Isolation</b>                                 |                              |
| Isolation tested with                            | 500 V DC                     |
| <b>Dimensions</b>                                |                              |
| Width                                            | 25 mm                        |
| Height                                           | 290 mm                       |
| Depth                                            | 210 mm                       |
| <b>Weights</b>                                   |                              |
| Weight, approx.                                  | 600 g                        |

**last modified:**

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