

SIMATIC S7-300, Digital output SM 322, isolated, 16 DO, 24 V DC, 0.5A, 1x 20-pole, Total current 4 A/group (8 A/module)



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.   | 80 mA           |
| from backplane bus 5 V DC, max.             | 80 mA           |
| Power loss                                  |                 |
| Power loss, typ.                            | 4.9 W           |
| Digital outputs                             |                 |
| Number of digital outputs                   | 16              |
| Short-circuit protection                    | Yes; Electronic |
| • Response threshold, typ.                  | 1 A             |
| Limitation of inductive shutdown voltage to | L+ (-53 V)      |
| Controlling a digital input                 | Yes             |

|   |             |
|---|-------------|
| <b>Switching capacity of the outputs</b>                  |             |
| • on lamp load, max.                                      | 5 W         |
| <b>Load resistance range</b>                              |             |
| • lower limit   | 48 Ω        |
| • upper limit   | 4 kΩ        |
| <b>Output voltage</b>                                     |             |
| • for signal "1", min.                                    | L+ (-0.8 V) |
| <b>Output current</b>                                     |             |
| • for signal "1" rated value                              | 0.5 A       |
| • for signal "1" permissible range for 0 to 40 °C, min.   | 5 mA        |
| • for signal "1" permissible range for 0 to 40 °C, max.   | 0.6 A       |
| • for signal "1" permissible range for 40 to 60 °C, min.  | 5 mA        |
| • for signal "1" permissible range for 40 to 60 °C, max.  | 0.6 A       |
| • for signal "1" minimum load current                     | 5 mA        |
| • for signal "0" residual current, max.                   | 0.5 mA      |
| <b>Output delay with resistive load</b>                   |             |
| • "0" to "1", max.  | 100 μs      |
| • "1" to "0", max.  | 500 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      |
| • with inductive load (acc. to IEC 60947-5-1, DC13), max. | 0.5 Hz      |
| • on lamp load, max.                                      | 10 Hz       |
| <b>Total current of the outputs (per group)</b>           |             |
| horizontal installation                                   |             |
| — up to 40 °C, max.                                       | 4 A         |
| — up to 60 °C, max.                                       | 3 A         |
| vertical installation                                     |             |
| — up to 40 °C, max.                                       | 2 A         |
| <b>Cable length</b>                                       |             |
| • shielded, max.  | 1 000 m     |
| • unshielded, max.  | 600 m       |
| <b>Interrupts/diagnostics/status information</b>          |             |
| Alarms  | No          |

|   |                  |
|---|------------------|
| Diagnostics function                        | No               |
| <b>Alarms</b>                               |                  |
| • Diagnostic alarm                          | No               |
| <b>Diagnostic messages</b>                  |                  |
| • Wire-break                                | No               |
| • Short-circuit                             | No               |
| • Fuse blown                                | No               |
| • missing load voltage                      | No               |
| <b>Diagnostics indication LED</b>           |                  |
| • Rated load voltage PWR (green)            | No               |
| • Fuse OK FSG (green)                       | No               |
| • Status indicator digital output (green)   | Yes              |
| <b>Potential separation</b>                 |                  |
| <b>Potential separation digital outputs</b> |                  |
| • between the channels                      | Yes              |
| • between the channels, in groups of        | 8                |
| • between the channels and backplane bus    | Yes; Optocoupler |
| <b>Isolation</b>                            |                  |
| Isolation tested with                       | 500 V DC         |
| <b>Connection method</b>                    |                  |
| required front connector                    | 20-pin           |
| <b>Dimensions</b>                           |                  |
| Width                                       | 40 mm            |
| Height                                      | 125 mm           |
| Depth                                       | 120 mm           |
| <b>Weights</b>                              |                  |
| Weight, approx.                             | 190 g            |
| <b>last modified:</b>                       | 07/10/2020       |