

SIMATIC S7-300, Digital output SM 322, isolated, 8 DO, 24 V DC, 0.5A (1x 8 DO), Short-circuit protection diagnostics, 1x 20-pole



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. | 90 mA |
| from backplane bus 5 V DC, max. | 70 mA |
| Power loss | |
| Power loss, typ. | 5 W |
| Digital outputs | |
| Number of digital outputs | 8 |
| Short-circuit protection | Yes; Electronic |
| • Response threshold, typ. | 0.75 to 1.5 A |
| Limitation of inductive shutdown voltage to | L+ (-45 V) |
| Controlling a digital input | Yes |

| | |
|---|---------------------------------|
| Switching capacity of the outputs | |
| • on lamp load, max. | 5 W |
| Load resistance range | |
| • lower limit | 48 Ω |
| • upper limit | 3 kΩ |
| Output voltage | |
| • for signal "1", min. | L+ (-0.8 to -1.6 V) |
| Output current | |
| • for signal "1" rated value | 0.5 A |
| • for signal "1" permissible range for 0 to 40 °C, min. | 10 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. | 10 mA |
| • for signal "1" permissible range for 40 to 60 °C, max. | 0.6 A |
| • for signal "1" minimum load current | 10 mA |
| • for signal "0" residual current, max. | 0.5 mA |
| Output delay with resistive load | |
| • "0" to "1", max. | 180 μs |
| • "1" to "0", max. | 245 μs |
| Parallel switching of two outputs | |
| • for uprating | No |
| • for redundant control of a load | Outputs with series diodes only |
| Switching frequency | |
| • with resistive load, max. | 100 Hz |
| • with inductive load, max. | 2 Hz |
| • with inductive load (acc. to IEC 60947-5-1, DC13), max. | 2 Hz |
| • on lamp load, max. | 10 Hz |
| Total current of the outputs (per group) | |
| horizontal installation | |
| — up to 40 °C, max. | 4 A |
| — up to 60 °C, max. | 3 A |
| vertical installation | |
| — up to 40 °C, max. | 4 A |
| Cable length | |
| • shielded, max. | 1 000 m |
| • unshielded, max. | 600 m |
| Interrupts/diagnostics/status information | |
| Diagnostics function | Yes; Parameterizable |

| Alarms | |
|---|----------------------|
| • Diagnostic alarm | Yes; Parameterizable |
| Diagnostic messages | |
| • Diagnostic information readable | Yes |
| • Wire-break | Yes |
| • Short-circuit | Yes |
| • Fuse blown | No |
| • missing load voltage | Yes |
| Diagnostics indication LED | |
| • Rated load voltage PWR (green) | No |
| • Fuse OK FSG (green) | No |
| • Group error SF (red) | Yes |
| • Status indicator digital output (green) | Yes; per channel |
| • Channel fault indicator F (red) | Yes |
| Potential separation | |
| Potential separation digital outputs | |
| • between the channels, in groups of | 8 |
| • between the channels and backplane bus | Yes; Optocoupler |
| Isolation | |
| Isolation tested with | 500 V DC |
| Connection method | |
| required front connector | 20-pin |
| Dimensions | |
| Width | 40 mm |
| Height | 125 mm |
| Depth | 120 mm |
| Weights | |
| Weight, approx. | 210 g |
| last modified: | 06/09/2020 |