



Figure similar

SIMATIC S7-300, Digital output SM 322, isolated, 8 DO, 24 V DC, 2A, 1x 20-pole

| 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.                | 60 mA           |
| from backplane bus 5 V DC, max.                          | 40 mA           |
| Power loss   |                 |
| Power loss, typ.   | 6.8 W           |
| Digital outputs  |                 |
| Number of digital outputs                                | 8               |
| Short-circuit protection                                 | Yes; Electronic |
| • Response threshold, typ.                               | 3 A             |
| Limitation of inductive shutdown voltage to              | L+ (-48 V)      |
| Controlling a digital input                              | Yes             |
| Switching capacity of the outputs                        |                 |
| • on lamp load, max.                                     | 10 W            |
| Load resistance range                                    |                 |
| • lower limit  | 12 Ω            |
| • upper limit  | 4 kΩ            |
| Output voltage   |                 |
| • for signal "1", min.                                   | L+ (-0.8 V)     |
| Output current   |                 |
| • for signal "1" rated value                             | 2 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.  | 2.4 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. | 2.4 A           |
| • for signal "1" minimum load current                    | 5 mA            |
| • for signal "0" residual current, max.                  | 0.5 mA          |
| Output delay with resistive load                         |                 |
| • "0" to "1", max.                                       | 100 μs          |
| • "1" to "0", max.                                       | 500 μs          |
| Parallel switching of two outputs                        |                 |
| • for uprating   | No              |
| • for redundant control of a load                        | Yes             |
| Switching frequency                                      |                 |
| • with resistive load, max.                              | 100 Hz          |

|   |                  |
|---|------------------|
| <ul style="list-style-type: none"> <li>• with inductive load, max.</li> </ul>                               | 0.5 Hz           |
| <ul style="list-style-type: none"> <li>• with inductive load (acc. to IEC 60947-5-1, DC13), max.</li> </ul> | 0.5 Hz           |
| <ul style="list-style-type: none"> <li>• on lamp load, max.</li> </ul>                                      | 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.   | 4 A              |
| vertical installation   |                  |
| — up to 40 °C, max.   | 4 A              |
| <b>Cable length</b>   |                  |
| <ul style="list-style-type: none"> <li>• shielded, max.</li> </ul>  | 1 000 m          |
| <ul style="list-style-type: none"> <li>• unshielded, max.</li> </ul>  | 600 m            |
| <b>Interrupts/diagnostics/status information</b>  |                  |
| Alarms  | No               |
| Diagnostics function  | No               |
| <b>Alarms</b>   |                  |
| <ul style="list-style-type: none"> <li>• Diagnostic alarm</li> </ul>  | No               |
| <b>Diagnoses</b>  |                  |
| <ul style="list-style-type: none"> <li>• Wire-break</li> </ul>  | No               |
| <ul style="list-style-type: none"> <li>• Short-circuit</li> </ul>   | No               |
| <ul style="list-style-type: none"> <li>• Fuse blown</li> </ul>  | No               |
| <ul style="list-style-type: none"> <li>• missing load voltage</li> </ul>                                    | No               |
| <b>Diagnostics indication LED</b>   |                  |
| <ul style="list-style-type: none"> <li>• Rated load voltage PWR (green)</li> </ul>                          | No               |
| <ul style="list-style-type: none"> <li>• Fuse OK FSG (green)</li> </ul>                                     | No               |
| <ul style="list-style-type: none"> <li>• Status indicator digital output (green)</li> </ul>                 | Yes; per channel |
| <b>Potential separation</b>   |                  |
| Potential separation digital outputs  |                  |
| <ul style="list-style-type: none"> <li>• between the channels</li> </ul>                                    | Yes              |
| <ul style="list-style-type: none"> <li>• between the channels, in groups of</li> </ul>                      | 4                |
| <ul style="list-style-type: none"> <li>• between the channels and backplane bus</li> </ul>                  | 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            |

last modified:

3/12/2024 