



Figure similar

SIMATIC S7-300, Digital module SM 323, isolated, 8DI and 8DO, 24 V DC, 0.5 A Total current 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.                       | 40 mA       |
| from backplane bus 5 V DC, max.                                 | 40 mA       |
| Power loss  |             |
| Power loss, typ.  | 3.5 W       |
| Digital inputs  |             |
| Number of digital inputs  | 8           |
| Input characteristic curve in accordance with IEC 61131, type 1 | Yes         |
| Number of simultaneously controllable inputs                    |             |
| horizontal installation   |             |
| — up to 60 °C, max.   | 8           |
| vertical installation   |             |
| — up to 40 °C, max.   | 8           |
| Input voltage   |             |
| • Type of input voltage   | DC          |
| • Rated value (DC)  | 24 V        |
| • for signal "0"  | -30 to +5 V |
| • for signal "1"  | 13 to 30V   |
| Input current   |             |
| • for signal "1", typ.  | 7 mA        |
| Input delay (for rated value of input voltage)                  |             |
| for standard inputs   |             |
| — at "0" to "1", min.   | 1.2 ms      |
| — at "0" to "1", max.   | 4.8 ms      |
| — at "1" to "0", min.   | 1.2 ms      |
| — at "1" to "0", max.   | 4.8 ms      |
| Cable length  |             |
| • shielded, max.  | 1 000 m     |
| • unshielded, max.  | 600 m       |
| Digital outputs   |             |

|   |                                     |
|---|-------------------------------------|
| Number of digital outputs                                 | 8                                   |
| Short-circuit protection                                  | Yes                                 |
| • Response threshold, typ.                                | 1 A                                 |
| Limitation of inductive shutdown voltage to               | L+ (-53 V)                          |
| Controlling a digital input                               | Yes                                 |
| Switching capacity of the outputs                         |                                     |
| • on lamp load, max.                                      | 5 W                                 |
| Load resistance range                                     |                                     |
| • lower limit   | 48 $\Omega$                         |
| • upper limit   | 4 k $\Omega$                        |
| Output voltage  |                                     |
| • for signal "1", min.                                    | L+ (-0.8 V)                         |
| Output current  |                                     |
| • for signal "1" rated value                              | 0.5 A                               |
| • for signal "1" permissible range, min.                  | 5 mA                                |
| • for signal "1" permissible range, max.                  | 0.6 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 $\mu$ s                         |
| • "1" to "0", max.  | 500 $\mu$ s                         |
| Parallel switching of two outputs                         |                                     |
| • for uprating  | No                                  |
| • for redundant control of a load                         | Yes; only outputs of the same group |
| Switching frequency                                       |                                     |
| • 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                               |
| Total current of the outputs (per group)                  |                                     |
| 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                                 |
| Cable length  |                                     |
| • shielded, max.  | 1 000 m                             |
| • unshielded, max.  | 600 m                               |
| <b>Encoder</b>  |                                     |
| Connectable encoders                                      |                                     |
| • 2-wire sensor   | Yes                                 |
| — permissible quiescent current (2-wire sensor), max.     | 2 mA                                |
| <b>Interrupts/diagnostics/status information</b>          |                                     |
| Alarms  | No                                  |
| Diagnostics function                                      | No                                  |
| Diagnostics indication LED                                |                                     |
| • Status indicator digital input (green)                  | Yes                                 |
| • Status indicator digital output (green)                 | Yes                                 |
| <b>Potential separation</b>                               |                                     |
| Potential separation digital inputs                       |                                     |
| • between the channels                                    | Yes                                 |
| • between the channels, in groups of                      | 8                                   |
| • between the channels and backplane bus                  | Yes; Optocoupler                    |
| Potential separation digital outputs                      |                                     |
| • between the channels                                    | Yes                                 |
| • 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.

220 g

**last modified:**

1/16/2021 