

SIMATIC S7-300, Digital module SM 323, isolated, 8DI and 8DO, 24 V DC, 0.5 A Total current 2A, 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.                       | 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 +5V  |
| • 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 Ω        |
| • upper limit                                  | 4 kΩ        |
| 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 μs      |
| • "1" to "0", max.                             | 500 μs      |

|                                                                 |                                     |
|-----------------------------------------------------------------|-------------------------------------|
| 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                              |
| • 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                               |
| Encoder                                                         |                                     |
| Connectable encoders                                            |                                     |
| • 2-wire sensor                                                 | Yes                                 |
| — permissible quiescent current (2-wire sensor), max.           | 2 mA                                |
| Isochronous mode                                                |                                     |
| Isochronous operation (application synchronized up to terminal) | No                                  |
| Interrupts/diagnostics/status information                       |                                     |
| Alarms                                                          | No                                  |
| Diagnostic functions                                            | No                                  |
| Diagnostics indication LED                                      |                                     |
| • Status indicator digital input (green)                        | Yes                                 |
| • Status indicator digital output (green)                       | Yes                                 |
| Potential separation                                            |                                     |
| 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                            |                                     |
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| • 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:           | 05/18/2018  |