



SIMATIC S7-300, Digital module SM 323, isolated, 16 DI and 16 DO, 24 V DC, 0.5 A, Total current 4A, 1x 40-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. | 80 mA |
| from backplane bus 5 V DC, max. | 80 mA |
| Power loss | |
| Power loss, typ. | 6.5 W |
| Digital inputs | |
| Number of digital inputs | 16 |
| Input characteristic curve in accordance with IEC 61131, type 1 | Yes |
| Number of simultaneously controllable inputs | |
| horizontal installation | |
| — up to 40 °C, max. | 16 |
| — up to 60 °C, max. | 8 |
| vertical installation | |
| — up to 40 °C, max. | 16 |
| 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 | 16 |
| Short-circuit protection | Yes |
| • Response threshold, typ. | 1 A |

| | |
|---|-------------------------------------|
| Limitation of inductive shutdown voltage to | L+ (-48 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. | 100 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. | 2 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. | 1.5 mA |
| Interrupts/diagnostics/status information | |
| Alarms | No |
| Diagnostics function | 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 | 16 |
| • 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 | 40-pin |
| Dimensions | |
| Width | 40 mm |
| Height | 125 mm |

| | |
|-----------------|--------|
| Depth | 120 mm |
| Weights | |
| Weight, approx. | 260 g |

| Classifications | | | |
|------------------------|--------|---------|----------------|
| | | Version | Classification |
| | eClass | 14 | 27-24-22-04 |
| | eClass | 12 | 27-24-22-04 |
| | eClass | 9.1 | 27-24-22-04 |
| | eClass | 9 | 27-24-22-04 |
| | eClass | 8 | 27-24-22-04 |
| | eClass | 7.1 | 27-24-22-04 |
| | eClass | 6 | 27-24-22-04 |
| | ETIM | 9 | EC001419 |
| | ETIM | 8 | EC001419 |
| | ETIM | 7 | EC001419 |
| | IDEA | 4 | 3566 |
| | UNSPSC | 15 | 32-15-17-05 |

Approvals / Certificates

General Product Approval

[Manufacturer Declaration](#)



[Miscellaneous](#)



EMV **For use in hazardous locations**



[EM](#)



For use in hazardous locations **Maritime application**



[Miscellaneous](#)

[CCC-Ex](#)



Maritime application



[NK / Nippon Kaiji Kyokai](#)



[CCS \(China Classification Society\)](#)

last modified:

4/7/2025