



SIMATIC S7-300, Digital input SM 321, isolated, 16 DI, 24 V DC, 1x 20-pole, 0.05 ms input delay

| 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 backplane bus 5 V DC, max.                                 | 110 mA      |
| Power loss                                                      |             |
| Power loss, typ.                                                | 3.8 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.                                             | 16          |
| 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                                             |             |
| — parameterizable                                               | No          |
| — at "0" to "1", min.                                           | 25 µs       |
| — at "0" to "1", max.                                           | 75 µs       |
| — at "1" to "0", min.                                           | 25 µs       |
| — at "1" to "0", max.                                           | 75 µs       |
| 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               |
| <b>Alarms</b>                              |                  |
| • Diagnostic alarm                         | No               |
| • Hardware interrupt                       | No               |
| <b>Diagnostics indication LED</b>          |                  |
| • Status indicator digital input (green)   | Yes              |
| <b>Potential separation</b>                |                  |
| <b>Potential separation digital inputs</b> |                  |
| • between the channels                     | No               |
| • between the channels, in groups of       | 16               |
| • between the channels and backplane bus   | 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.                            | 200 g            |

**last modified:**

3/12/2024 