

SIMATIC S7-300, DIGITAL INPUT SM 321, GALVANICALLY ISOLATED, 16 DI, DC 24V, 1 X 20 PIN, PROCESS INTERRUPT, DIAGNOSTICS, FIT FOR ISOCHRON MODE



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.                       | 90 mA  |
| from backplane bus 5 V DC, max.                                 | 130 mA |
| Power loss                                                      |        |
| Power loss, typ.                                                | 4 W    |
| Digital inputs                                                  |        |
| Number of digital inputs                                        | 16     |
| Input characteristic curve in accordance with IEC 61131, type 2 | 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 +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                                             |                                 |
| — parameterizable                                               | Yes; 0.1 / 0.5 / 3 / 15 / 20 ms |
| 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) | Yes                             |
| Interrupts/diagnostics/status information                       |                                 |
| Diagnostic functions                                            | Yes; Parameterizable            |
| Alarms                                                          |                                 |
| • Diagnostic alarm                                              | Yes; Parameterizable            |
| • Hardware interrupt                                            | Yes; Parameterizable            |
| Diagnostic messages                                             |                                 |
| • Wire-break                                                    | Yes; to I< 1 mA                 |
| Diagnostics indication LED                                      |                                 |
| • Group error SF (red)                                          | Yes                             |
| • Status indicator digital input (green)                        | Yes                             |
| Potential separation                                            |                                 |
| Potential separation digital inputs                             |                                 |
| • between the channels                                          | No                              |
| • between the channels, in groups of                            | 16                              |
| • 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.          | 200 g      |
| <b>last modified:</b>    | 08/12/2017 |