

SIMATIC S7-300, DIGITAL INPUT SM 321, OPTICALLY ISOLATED,  
32 DI, 120V AC, 1 X 40 PIN



Figure similar

|                                                                 |       |
|-----------------------------------------------------------------|-------|
| Supply voltage                                                  |       |
| Load voltage L1                                                 |       |
| • Rated value (AC)                                              | 120 V |
| Input current                                                   |       |
| from backplane bus 5 V DC, max.                                 | 16 mA |
| Power loss                                                      |       |
| Power loss, typ.                                                | 4 W   |
| Digital inputs                                                  |       |
| Number of digital inputs                                        | 32    |
| Input characteristic curve in accordance with IEC 61131, type 2 | Yes   |
| Number of simultaneously controllable inputs                    |       |
| horizontal installation                                         |       |
| — up to 40 °C, max.                                             | 32    |
| — up to 60 °C, max.                                             | 24    |
| vertical installation                                           |       |

|                                                                 |                  |
|-----------------------------------------------------------------|------------------|
| — up to 40 °C, max.                                             | 32               |
| <b>Input voltage</b>                                            |                  |
| • Type of input voltage                                         | AC               |
| • Rated value (AC)                                              | 120 V            |
| • for signal "0"                                                | 0 to 20V         |
| • for signal "1"                                                | 74 to 132V       |
| • Frequency range                                               | 47 ... 63 Hz     |
| <b>Input current</b>                                            |                  |
| • for signal "1", typ.                                          | 21 mA            |
| <b>Input delay (for rated value of input voltage)</b>           |                  |
| for standard inputs                                             |                  |
| — parameterizable                                               | No               |
| — at "0" to "1", max.                                           | 15 ms            |
| — at "1" to "0", max.                                           | 25 ms            |
| <b>Cable length</b>                                             |                  |
| • shielded, max.                                                | 1 000 m          |
| • unshielded, max.                                              | 600 m            |
| <b>Encoder</b>                                                  |                  |
| <b>Connectable encoders</b>                                     |                  |
| • 2-wire sensor                                                 | Yes              |
| — permissible quiescent current (2-wire sensor), max.           | 4 mA             |
| <b>Isochronous mode</b>                                         |                  |
| Isochronous operation (application synchronized up to terminal) | No               |
| <b>Interrupts/diagnostics/status information</b>                |                  |
| Diagnostic functions                                            | No               |
| <b>Alarms</b>                                                   |                  |
| • Diagnostic alarm                                              | No               |
| • Hardware interrupt                                            | No               |
| <b>Diagnostics indication LED</b>                               |                  |
| • Group error SF (red)                                          | No               |
| • Status indicator digital input (green)                        | Yes; per channel |
| <b>Potential separation</b>                                     |                  |
| <b>Potential separation digital inputs</b>                      |                  |
| • between the channels                                          | No               |
| • between the channels, in groups of                            | 8                |
| • between the channels and backplane bus                        | Yes; Optocoupler |
| <b>Isolation</b>                                                |                  |
| Isolation tested with                                           | 2500 V DC        |

| Connection method        |            |
|--------------------------|------------|
| required front connector | 40-pin     |
| Dimensions               |            |
| Width                    | 40 mm      |
| Height                   | 125 mm     |
| Depth                    | 120 mm     |
| Weights                  |            |
| Weight, approx.          | 300 g      |
| <b>last modified:</b>    | 10/28/2016 |