

SIMATIC S7-300, DIGITAL INPUT SM 321, OPTICALLY ISOLATED,  
16 DI, DC 48-125V, 1 X 20 PIN



Figure similar

| Supply voltage  |       |
|---|-------|
| Load voltage L+   |       |
| • Rated value (DC)  | 48 V  |
| • permissible range, lower limit (DC)                           | 48 V  |
| • permissible range, upper limit (DC)                           | 125 V |
| Input current   |       |
| from backplane bus 5 V DC, max.                                 | 40 mA |
| Power loss  |       |
| Power loss, typ.  | 4.3 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.   | 8     |

|   |                           |
|---|---------------------------|
| — up to 60 °C, max.   | 8; 6 to Ue 146 V          |
| <b>vertical installation</b>                                    |                           |
| — up to 40 °C, max.   | 8                         |
| <b>Input voltage</b>  |                           |
| • Type of input voltage   | DC                        |
| • Rated value (DC)  | 48 V; 48 V DC to 125 V DC |
| • for signal "0"  | -146 V DC to +15 V DC     |
| • for signal "1"  | 30 V DC to 146 V DC       |
| <b>Input current</b>  |                           |
| • for signal "1", typ.  | 3.5 mA                    |
| <b>Input delay (for rated value of input voltage)</b>           |                           |
| <b>for standard inputs</b>                                      |                           |
| — parameterizable   | No                        |
| — at "0" to "1", min.   | 0.1 ms                    |
| — at "0" to "1", max.   | 3.5 ms                    |
| — at "1" to "0", min.   | 0.7 ms                    |
| — at "1" to "0", max.   | 3 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.           | 1 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                       |
| <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

#### Permissible potential difference

between different circuits

146 V DC/132 V AC

#### Isolation

Isolation tested with

1500 V DC

#### Connection method

required front connector

20-pin

#### Dimensions

Width

40 mm

Height

125 mm

Depth

120 mm

#### Weights

Weight, approx.

200 g

**last modified:**

03/23/2017