



SIMATIC S7-300, Digital input SM 321, isolated, 16 DI, 24 V DC, 1x 20-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 backplane bus 5 V DC, max.                                 | 10 mA       |
| Power loss  |             |
| Power loss, typ.  | 3.5 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.   | 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.   | 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       |
| Encoder   |             |
| Connectable encoders  |             |
| • 2-wire sensor   | Yes         |
| — permissible quiescent current (2-wire sensor),                | 1.5 mA      |

max.

### Interrupts/diagnostics/status information

Alarms No  
Diagnostics function No

#### Alarms

- Diagnostic alarm No
- Hardware interrupt No

#### Diagnostics indication LED

- 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 / header

required front connector 20-pin

### Dimensions

Width 40 mm  
Height 125 mm  
Depth 120 mm

### Weights

Weight, approx. 200 g

**last modified:** 12/16/2020 