



SIMATIC S7-300, Digital input SM 321, isolated, 16 DI, 24-48 V AC/DC with single routing, 1x 40-pole

Figure similar

Supply voltage	
Load voltage L+	
• Rated value (DC)	24 V
• permissible range, lower limit (DC)	24 V
• permissible range, upper limit (DC)	48 V
Load voltage L1	
• Rated value (AC)	24 V
• permissible range, lower limit (AC)	24 V
• permissible range, upper limit (AC)	48 V
Input current	
from backplane bus 5 V DC, max.	100 mA
Power loss	
Power loss, typ.	1.5 W; at 24 V; 2,8 W at 48 V
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	AC/DC
• Rated value (DC)	24 V; DC 24 or 48 V
• Rated value (AC)	24 V; 24 V AC or 48 V AC (0 ... 63 Hz)
• for signal "0"	-5V AC to +5V AC
• for signal "1"	14V AC to 60V AC
Input current	
• for signal "0", min.	-1 mA
• for signal "0", max. (permissible quiescent current)	1 mA
• for signal "1", typ.	2.7 mA
Input delay (for rated value of input voltage)	
for standard inputs	
— parameterizable	No
— at "0" to "1", min.	16 ms
— at "0" to "1", max.	16 ms
— at "1" to "0", max.	16 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. 1 mA

### Interrupts/diagnostics/status information

Alarms No

Diagnostics function No

#### Alarms

- Diagnostic alarm No
- Hardware interrupt No

#### Diagnostics indication LED

- Group error SF (red) No
- Status indicator digital input (green) Yes

### Potential separation

#### Potential separation digital inputs

- between the channels Yes
- between the channels, in groups of 1
- between the channels and backplane bus Yes; Optocoupler

### Isolation

Isolation tested with 1 500 V AC

### connection method

required front connector 40-pin

### Dimensions

Width 40 mm

Height 125 mm

Depth 120 mm

### Weights

Weight, approx. 260 g

**last modified:** 3/12/2024 