

SIMATIC S7-300, Digital input SM 321, isolated, 16 DI, 24-48 V AC/DC with single rooting, 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
<b>Number of simultaneously controllable inputs</b>	
horizontal installation	
— up to 40 °C, max.	16
— up to 60 °C, max.	16
vertical installation	
— up to 40 °C, max.	16
<b>Input voltage</b>	
• 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
<b>Input current</b>	
• for signal "0", min.	-1 mA
• for signal "0", max. (permissible quiescent current)	1 mA
• for signal "1", typ.	2.7 mA
<b>Input delay (for rated value of input voltage)</b>	
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
<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>Interrupts/diagnostics/status information</b>	
Alarms	No
Diagnostics function	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

## Potential separation

### Potential separation digital inputs

- between the channels
- between the channels, in groups of
- between the channels and backplane bus

Yes

1

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:**

12/10/2020