



SIMATIC S7-300, Digital input SM 321, isolated, 16 DI, 48-125 V DC, 1x 20-pole

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 U <sub>e</sub> 146 V
vertical installation	
— up to 40 °C, max.	8
Input voltage	
• 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
Input current	
• for signal "1", typ.	3.5 mA
Input delay (for rated value of input voltage)	
for standard inputs	
— 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
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 mA

max.

### 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 No
- between the channels, in groups of 8
- between the channels and backplane bus Yes; Optocoupler

### Isolation

Isolation tested with 1 500 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 