

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 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

## Encoder

<b>Connectable encoders</b>	
• 2-wire sensor	Yes
— permissible quiescent current (2-wire sensor), max.	1 mA

## Interrupts/diagnostics/status information

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

<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

## Isolation

Isolation tested with	1 500 V DC
<b>Connection method</b>	
required front connector	20-pin
<b>Dimensions</b>	
Width	40 mm
Height	125 mm
Depth	120 mm
<b>Weights</b>	
Weight, approx.	200 g
<b>last modified:</b>	10/13/2020