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Data sheet 6ES7321-1CH20-0AA0

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

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— up to 60 °C, max.	8; 6 to Ue 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), 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	No
• between the channels, in groups of	8
• between the channels and backplane bus	Yes; Optocoupler

Isolation

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Isolation tested with	1500 V DC

Connection method	
required front connector	20-pin

Dimensions	
Width	40 mm
Height	125 mm
Depth	120 mm

Weights	
Weight, approx.	200 g

last modified: 06/09/2020

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