SIEMENS

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
— 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	4 000
• 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		
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	

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last modified: