Data sheet

6ES7321-1BL00-0AA0



SIMATIC S7-300, Digital input SM 321, Isolated 32 DI, 24 V DC, 1x 40-pole

Supply voltage		
Load voltage L+		
Rated value (DC)	24 V	
 permissible range, lower limit (DC) 	20.4 V	
 permissible range, upper limit (DC) 	28.8 V	
Input current		
from backplane bus 5 V DC, max.	15 mA	
Power loss		
Power loss, typ.	6.5 W	
Digital inputs		
Number of digital inputs	32	
Input characteristic curve in accordance with IEC 61131, type 1	Yes	
Number of simultaneously controllable inputs		
horizontal installation		
— up to 40 °C, max.	32	
— up to 60 °C, max.	16	
vertical installation		
— up to 40 °C, max.	32	
Input voltage		
 Type of input voltage 	DC	
 Rated value (DC) 	24 V	
• for signal "0"	-30 to +5 V	
● for signal "1"	13 to 30V	
Input current		
● for signal "1", typ.	7 mA	
Input delay (for rated value of input voltage)		
for standard inputs		
— parameterizable	No	
— at "0" to "1", min.	1.2 ms	
— at "0" to "1", max.	4.8 ms	
— at "1" to "0", min.	1.2 ms	
— at "1" to "0", max.	4.8 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.	1.5 mA	
Interrupts/diagnostics/status information		

Alarms	No	
Diagnostics function	No	
Alarms		
Diagnostic alarm	No	
Hardware interrupt	No	
Diagnostics indication LED		
 Status indicator digital input (green) 	Yes	
Potential separation		
Potential separation digital inputs		
 between the channels 	No	
 between the channels, in groups of 	16	
 between the channels and backplane bus 	Yes; Optocoupler	
Isolation		
Isolation tested with	500 V DC	
connection method		
required front connector	40-pin	
Dimensions		
Width	40 mm	
Height	125 mm	
Depth	120 mm	
Weights		
Weight, approx.	260 g	

last modified:

8/16/2023