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Datasheet 6ES7321-1BL00-0AA0



SIMATIC S7-300, DIGITAL INPUT SM 321, OPTICALLY ISOLATED 32DI, 24 V DC, 1 X 40 PIN

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	

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— 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 30 V
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
Cable length	
• Cable length, shielded, max.	1 000 m
• Cable length unshielded, max.	600 m
Encoder	
Connectable encoders	
• 2-wire sensor	Yes
— permissible quiescent current (2-wire sensor), max.	1.5 mA
Isochronous mode	
Isochronous mode (application synchronized up to terminal)	No
Interrupts/diagnostics/status information	
Alarms	
• Alarms	No
• Diagnostic alarm	No
• Hardware interrupt	No
Diagnostic messages	
• Diagnostic functions	No
Diagnostics indication LED	
• Status indicator digital input (green)	Yes
Galvanic isolation	

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Galvanic isolation digital inputs	
• between the channels	No
• between the channels, in groups of	16
• between the channels and the backplane bus	Yes; Optocoupler
Permissible potential difference	
between different circuits	75 VDC / 60 VAC
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
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