SIEMENS

Data sheet

6ES7321-1BP00-0AA0



SIMATIC S7-300 digital input SM 321, Isolated in groups of 16, 64 DI, 24 V DC, 3ms, Sink/source input Terminal blocks 6ES7392-1.N00-0AA0 and cable 6ES7392-4...0-0AA0 required

Supply voltage Lead voltage L+ • Rated value (DC) 24 V • Reverse polarity protection Yes Input current 100 mA Power loss, typ. 7 W Power loss, typ. 7 W Digital inputs 64 Input characteristic curve in accordance with IEC 61131, type 1 Yes Number of digital inputs 64 Input characteristic curve in accordance with IEC 61131, type 1 Yes Number of simultaneously controllable inputs 44 all mounting positions 64 up to 60 °C, max. 82 horizontal installation 64 up to 60 °C, max. 32 Input voltage DC - up to 60 °C, max. 32 Input voltage DC • for signal °C -30 to +5 V • for signal °C		
• Rated value (DC) 24 V • Reverse polarity protection Yes Input current 100 mA Power loss 7 W Digital inputs 64 Input characteristic curve in accordance with IEC 61131, type 1 Yes Number of simultaneously controllable inputs 64 Input object of simultaneously controllable inputs 64 — up to 40 °C, max. 64 — up to 60 °C, max. 82 horizontal installation 64 — up to 60 °C, max. 82 horizontal installation 64 — up to 60 °C, max. 32 vertical installation 32 uet to 60 °C, max. 32 input voltage DC • up to 60 °C, max. 32 Input voltage DC • Signal °C* - add value (DC) • for signal ***, typ. 4.2 mA Input current - or to ring in **** • for signal ****, typ. 4.2 mA Input delay (for rated value of input voltage) For standard inputs for standard use	Supply voltage	
• Reverse polarity protection Yes Input current 100 mA Power loss, typ. 7 W Power loss, typ. 7 W Digital inputs 64 Input characteristic curve in accordance with IEC 61131, type 1 Yes Number of simultaneously controllable inputs 64 all mounting positions 64 - up to 40 °C, max. 64 - up to 60 °C, max. 32 horizontal installation - - up to 40 °C, max. 64 - up to 60 °C, max. 32 horizontal installation - - up to 40 °C, max. 32 Input voltage DC • Vertical installation - - up to 40 °C, max. 32 Input voltage DC • Stape of input voltage DC • for signal "1" 13 to 30V Input delay (for rated value of input voltage) For signal "1" • for signal "1", typ. 4.2 mA Input delay (for rated value of input voltage) For standard inputs - parameterizable	Load voltage L+	
Input current 100 mA Power loss 7W Digital inputs 64 Number of digital inputs 64 Number of simultaneously controllable inputs 64 Number of simultaneously controllable inputs 64 all mounting positions 64 — up to 40 °C, max. 64 — up to 60 °C, max. 64 — up to 60 °C, max. 64 — up to 60 °C, max. 32 horizontal installation 64 — up to 60 °C, max. 32 Input voltage 64 — up to 60 °C, max. 32 Input voltage 0C — up to 60 °C, max. 32 Input voltage 0C • Type of input voltage 0C • Type of signal °1° 33 to +5 V • for signal °1° 35 to 5V • for signal °1° 13 to 30V Input voltage 100 to +5 V • for signal °1°, typ. 4.2 mA Input delay (for rated value of input voltage) 100 restandard inputs - parameterizable No - Rated value 4.2 ms	 Rated value (DC) 	24 V
from backplane bus 5 V DC, max. 100 mA Power loss 7 W Power loss, typ. 7 W Digital inputs 64 Input characteristic curve in accordance with IEC 61131, type 1 Yes Number of simultaneously controllable inputs 64 all mounting positions 64 - up to 40 °C, max. 64 - up to 60 °C, max. 32 horizontal installation 64 - up to 60 °C, max. 32 vertical installation 64 - up to 60 °C, max. 32 vertical installation 32 Input voltage DC • Type of input voltage DC • Type of input voltage DC • Fated value (DC) 24 V • for signal *1", typ. 4.2 mA Input delay (for rated value of input voltage) 10 for signal *1", typ. • for signal *1", typ. 4.2 mA Input delay (for rated value of input voltage) For standard inputs • at '0' to '1", min. 1.2 ms - at '0' to '1", min. 1.2 ms	 Reverse polarity protection 	Yes
Power loss Power loss, typ. 7 W Digital inputs 64 Number of digital inputs 64 Input characteristic curve in accordance with IEC 61131, type 1 Yes Number of simultaneously controllable inputs 64 all mounting positions 64 - up to 40 °C, max. 64 - up to 60 °C, max. 62 - up to 60 °C, max. 64 - up to 60 °C, max. 64 - up to 60 °C, max. 64 - up to 60 °C, max. 32 vertical installation 64 - up to 60 °C, max. 32 vertical installation 32 - up to 60 °C, max. 32 Input voltage DC • Type of input voltage DC • for signal "0" -30 to +5 V • for signal "1", typ. 4.2 mA Input durrent 4.2 mA Input durleduy (for rated value of input voltage) 12 ms for standard inputs - - parameterizable No - Rated value 4.2 mS - at "0" to "1", min. 1.2 ms - at "0" to "1", min. 1.2 ms - at "0" to "1", min. 1.2 ms - at "1" to "0", min. 1.2 ms <t< td=""><td>Input current</td><td></td></t<>	Input current	
Power loss, typ. 7 W Digital inputs 64 Input characteristic curve in accordance with IEC 61131, type 1 Yes Number of simultaneously controllable inputs 84 all mounting positions	from backplane bus 5 V DC, max.	100 mA
Digital inputs 64 Input characteristic curve in accordance with IEC 61131, type 1 Yes Number of simultaneously controllable inputs 84 all mounting positions 64 - up to 40 °C, max. 64 - up to 60 °C, max. 32 horizontal installation 64 - up to 40 °C, max. 64 - up to 60 °C, max. 32 horizontal installation 64 - up to 60 °C, max. 32 vertical installation - - up to 40 °C, max. 64 - up to 40 °C, max. 32 Input voltage DC • Rated value (DC) 24 V • for signal "0" -30 to +5 V • for signal "1", typ. 4.2 mA Input delay (for rated value of input voltage) Input delay (for rated value of input voltage) for standard inputs - - parameterizable No - at "0" to "1", min. 1.2 ms - at "1" to "0", max. 4	Power loss	
Number of digital inputs 64 Input characteristic curve in accordance with IEC 61131, type 1 Yes Number of simultaneously controllable inputs all mounting positions	Power loss, typ.	7 W
Number of digital inputs 64 Input characteristic curve in accordance with IEC 61131, type 1 Yes Number of simultaneously controllable inputs all mounting positions	Digital inputs	
Input characteristic curve in accordance with IEC 61131, type 1 Yes Number of simultaneously controllable inputs all mounting positions		64
all mounting positions - - up to 40 °C, max. 64 - up to 60 °C, max. 32 horizontal installation 64 - up to 60 °C, max. 32 vertical installation 32 - up to 60 °C, max. 32 vertical installation 32 - up to 60 °C, max. 32 Input voltage DC - up to 40 °C, max. 32 Input voltage DC - Rated value (DC) 24 V • for signal "0" -30 to +5 V • for signal "1" 13 to 30V Input delay (for rated value of input voltage) 4.2 mA • for signal "1", typ. 4.2 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", max. 4.8 ms - at "1" to "0", max. 4.8 ms	Input characteristic curve in accordance with IEC 61131,	Yes
	Number of simultaneously controllable inputs	
up to 60 °C, max. 32 horizontal installation 64 up to 60 °C, max. 32 vertical installation 32 up to 40 °C, max. 32 Input voltage 0 up to 40 °C, max. 32 Input voltage DC • Rated value (DC) 24 V • for signal "0" -30 to +5 V • for signal "1" 13 to 30V Input delay (for rated value of input voltage) For signal "1", typ. • for signal "1", typ. 4.2 mA Input delay (for rated value of input voltage) For standard inputs - parameterizable No - at "0" to "1", max. 4.8 ms - at "1" to "0", min. 1.2 ms - at "1" to "0", max. 4.8 ms - at "1" to "0", max. 4.8 ms	all mounting positions	
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up to 40 °C, max. 64	— up to 60 °C, max.	32
up to 60 °C, max. 32 vertical installation 32 up to 40 °C, max. 32 Input voltage DC • 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. 4.2 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", max. 4.8 ms - at "1" to "0", max. 4.8 ms	horizontal installation	
vertical installation 32 Input voltage 32 Input voltage DC • 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. 4.2 mA Input delay (for rated value of input voltage) - for standard inputs - - parameterizable No - Rated value 4.2 ms - 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 - at "1" to "0", max. 4.8 ms	— up to 40 °C, max.	64
	— up to 60 °C, max.	32
Input voltage DC • 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 -30 to +5 V • for signal "1", typ. 4.2 mA Input delay (for rated value of input voltage) - for standard inputs - - parameterizable No - Rated value 4.2 ms - at "0" to "1", min. 1.2 ms - at "0" to "1", max. 4.8 ms - at "1" to "0", max. 4.8 ms Cable length -	vertical installation	
• 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 4.2 mA • for signal "1", typ. 4.2 mA Input delay (for rated value of input voltage) - for standard inputs - - parameterizable No - Rated value 4.2 ms - at "0" to "1", max. 4.8 ms - at "1" to "0", max. 4.8 ms - at "1" to "0", max. 4.8 ms	— up to 40 °C, max.	32
• Rated value (DC) 24 V • for signal "0" -30 to +5 V • for signal "1" 13 to 30V Input current • for signal "1", typ. 4.2 mA Input delay (for rated value of input voltage) for standard inputs - parameterizable No - Rated value 4.2 ms - at "0" to "1", min. 1.2 ms - at "0" to "1", max. 4.8 ms - at "1" to "0", max. 4.8 ms Cable length	Input voltage	
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• for signal "1" 13 to 30V Input current 4.2 mA • for signal "1", typ. 4.2 mA Input delay (for rated value of input voltage) for standard inputs - parameterizable No - Rated value 4.2 ms - 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	 Rated value (DC) 	24 V
Input current • for signal "1", typ. 4.2 mA Input delay (for rated value of input voltage) for standard inputs — parameterizable No — Rated value 4.2 ms — 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	• for signal "0"	-30 to +5 V
• for signal "1", typ. 4.2 mA Input delay (for rated value of input voltage)	● for signal "1"	13 to 30V
Input delay (for rated value of input voltage) for standard inputs — parameterizable No — Rated value 4.2 ms — 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	Input current	
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— parameterizable No — Rated value 4.2 ms — 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 — at "1" to "0", max. 4.8 ms		
	for standard inputs	
	— parameterizable	No
		4.2 ms
		1.2 ms
— at "1" to "0", max. 4.8 ms Cable length 4.8 ms		4.8 ms
Cable length		1.2 ms
	— at "1" to "0", max.	4.8 ms
• shielded, max. 1 000 m		
	 shielded, max. 	1 000 m

• unshielded, max.	600 m
Encoder	
Connectable encoders	
• 2-wire sensor	No
Interrupts/diagnostics/status information	
Alarms	No
Diagnostics function	No
Alarms	
Diagnostic alarm	No
Hardware interrupt	No
Diagnoses	
 Diagnostic information readable 	No
Wire-break	No
Diagnostics indication LED	
 Group error SF (red) 	No
 Status indicator digital input (green) 	Yes
 Encoder supply Vs (green) 	No
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	Cable: 6ES7392-4Bxx0-0AA0 terminal blocks: 6ES7392-1xN00-0AA0
Dimensions	
Width	40 mm
Height	125 mm
Depth	112 mm
Weights	
Weight, approx.	230 g
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