



Figure similar

SIMATIC S7-300, Digital input SM 321, isolated, 16 DI; 24 V DC, 1x 20-pole, process interrupt, diagnostics, suitable for isochronous mode

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
• Reverse polarity protection	Yes
Input current	
from load voltage L+ (without load), max.	90 mA
from backplane bus 5 V DC, max.	130 mA
Encoder supply	
Number of outputs	2
Type of output voltage	L+ (-2.5 V)
Short-circuit protection	Yes; Electronic
additional (redundant) feed	Yes
Output current	
• Rated value	120 mA
• permissible range, lower limit	0 mA
• permissible range, upper limit	150 mA
Power loss	
Power loss, typ.	4 W
Digital inputs	
Number of digital inputs	16
Input characteristic curve in accordance with IEC 61131, type 2	Yes
Number of simultaneously controllable inputs	
horizontal installation	
— up to 40 °C, max.	16
— up to 60 °C, max.	16
vertical installation	
— up to 40 °C, max.	16
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	Yes; 0.1 / 0.5 / 3 / 15 / 20 ms

Encoder connection			
• Fixed current limitation for wire-break monitoring, min.	10 kΩ		
• Fixed current limitation for wire-break monitoring, max.	18 kΩ		
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.	2 mA		
Interrupts/diagnostics/status information			
Alarms	Yes		
Diagnostics function	Yes; Parameterizable		
Alarms			
• Diagnostic alarm	Yes; Parameterizable		
• Hardware interrupt	Yes; Parameterizable		
Diagnoses			
• Diagnostic information readable	Yes		
• Wire-break	Yes; to I< 1 mA		
Diagnostics indication LED			
• Group error SF (red)	Yes		
• Status indicator digital input (green)	Yes		
• Encoder supply Vs (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	20-pin		
Dimensions			
Width	40 mm		
Height	125 mm		
Depth	120 mm		
Weights			
Weight, approx.	200 g		
Classifications			
		Version	Classification
	eClass	14	27-24-22-04
	eClass	12	27-24-22-04
	eClass	9.1	27-24-22-04
	eClass	9	27-24-22-04
	eClass	8	27-24-22-04
	eClass	7.1	27-24-22-04
	eClass	6	27-24-22-04
	ETIM	9	EC001419
	ETIM	8	EC001419
	ETIM	7	EC001419
	IDEA	4	3566
	UNSPSC	15	32-15-17-05
Approvals / Certificates			
General Product Approval			

[Manufacturer Declaration](#)



[Miscellaneous](#)



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For use in hazardous locations



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