



Figure similar

spare part SIMATIC S7-300, digital input SM 321, isolated, 16 DI, 24-48 V AC/DC with single-point grounding, 1x 40-pole

Supply voltage	
Load voltage L+	
• Rated value (DC)	24 V
• permissible range, lower limit (DC)	24 V
• permissible range, upper limit (DC)	48 V
Load voltage L1	
• Rated value (AC)	24 V
• permissible range, lower limit (AC)	24 V
• permissible range, upper limit (AC)	48 V
Input current	
from backplane bus 5 V DC, max.	100 mA
Power loss	
Power loss, typ.	1.5 W; at 24 V; 2.8 W at 48 V
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.	16
— up to 60 °C, max.	16
vertical installation	
— up to 40 °C, max.	16
Input voltage	
• Type of input voltage	AC/DC
• Rated value (DC)	24 V; DC 24 or 48 V
• Rated value (AC)	24 V; 24 V AC or 48 V AC (0 ... 63 Hz)
• for signal "0"	-5V AC to +5V AC
• for signal "1"	14V AC to 60V AC
Input current	
• for signal "0", min.	-1 mA
• for signal "0", max. (permissible quiescent current)	1 mA
• for signal "1", typ.	2.7 mA
Input delay (for rated value of input voltage)	
for standard inputs	
— parameterizable	No
— at "0" to "1", min.	16 ms
— at "0" to "1", max.	16 ms
— at "1" to "0", max.	16 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 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	Yes		
• between the channels, in groups of	1		
• between the channels and backplane bus	Yes; Optocoupler		
Isolation			
Isolation tested with	1 500 V AC		
Connection method			
required front connector	40-pin		
Dimensions			
Width	40 mm		
Height	125 mm		
Depth	120 mm		
Weights			
Weight, approx.	260 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	10	EC001419
	ETIM	9	EC001419
	ETIM	8	EC001419
	ETIM	7	EC001419
	IDEA	4	3566
	UNSPSC	15	32-15-17-05
Approvals / Certificates			
General Product Approval			
Miscellaneous  EG-Konf.  China RoHS  UL  RCM			
EMV		For use in hazardous locations	



[FM](#)



For use in hazardous locations

Maritime application



[Miscellaneous](#)

[CCC-Ex](#)



Maritime application



[NK / Nippon Kaiji Kyokai](#)



[CCS \(China Classification Society\)](#)

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