

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



Figure similar

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
<b>Power loss</b>	
Power loss, typ.	4 W
<b>Digital inputs</b>	
Number of digital inputs	16
Input characteristic curve in accordance with IEC 61131, type 2	Yes
<b>Number of simultaneously controllable inputs</b>	
<b>horizontal installation</b>	
— up to 40 °C, max.	16
— up to 60 °C, max.	16
<b>vertical installation</b>	
— up to 40 °C, max.	16
<b>Input voltage</b>	
• Type of input voltage	DC
• Rated value (DC)	24 V
• for signal "0"	-30 to +5 V
• for signal "1"	13 to 30V
<b>Input current</b>	
• for signal "1", typ.	7 mA
<b>Input delay (for rated value of input voltage)</b>	
<b>for standard inputs</b>	
— parameterizable	Yes; 0.1 / 0.5 / 3 / 15 / 20 ms
<b>Encoder connection</b>	
• Fixed current limitation for wire-break monitoring, min.	10 kΩ
• Fixed current limitation for wire-break monitoring, max.	18 kΩ
<b>Cable length</b>	
• shielded, max.	1 000 m
• unshielded, max.	600 m
<b>Encoder</b>	
<b>Connectable encoders</b>	
• 2-wire sensor	Yes
— permissible quiescent current (2-wire sensor), max.	2 mA
<b>Interrupts/diagnostics/status information</b>	
Alarms	Yes
Diagnostics function	Yes; Parameterizable
<b>Alarms</b>	

• 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
<b>last modified:</b>	12/10/2020