



SIMATIC S7-300, Digital module SM 323, isolated, 8DI and 8DO, 24 V DC, 0.5 A Total current 2A, 1x 20-pole

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 load voltage L+ (without load), max.	40 mA
from backplane bus 5 V DC, max.	40 mA
Power loss	
Power loss, typ.	3.5 W
Digital inputs	
Number of digital inputs	8
Input characteristic curve in accordance with IEC 61131, type 1	Yes
Number of simultaneously controllable inputs	
horizontal installation	
— up to 60 °C, max.	8
vertical installation	
— up to 40 °C, max.	8
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	
— 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
Cable length	
• shielded, max.	1 000 m
• unshielded, max.	600 m
Digital outputs	
Number of digital outputs	8
Short-circuit protection	Yes
• Response threshold, typ.	1 A

Limitation of inductive shutdown voltage to	L+ (-53 V)
Controlling a digital input	Yes
Switching capacity of the outputs	
• on lamp load, max.	5 W
Load resistance range	
• lower limit	48 $\Omega$
• upper limit	4 k $\Omega$
Output voltage	
• for signal "1", min.	L+ (-0.8 V)
Output current	
• for signal "1" rated value	0.5 A
• for signal "1" permissible range, min.	5 mA
• for signal "1" permissible range, max.	0.6 A
• for signal "1" minimum load current	5 mA
• for signal "0" residual current, max.	0.5 mA
Output delay with resistive load	
• "0" to "1", max.	100 $\mu$ s
• "1" to "0", max.	500 $\mu$ s
Parallel switching of two outputs	
• for uprating	No
• for redundant control of a load	Yes; only outputs of the same group
Switching frequency	
• with resistive load, max.	100 Hz
• with inductive load, max.	0.5 Hz
• with inductive load (acc. to IEC 60947-5-1, DC13), max.	0.5 Hz
• on lamp load, max.	10 Hz
Total current of the outputs (per group)	
horizontal installation	
— up to 40 °C, max.	4 A
— up to 60 °C, max.	4 A
vertical installation	
— up to 40 °C, max.	4 A
Cable length	
• shielded, max.	1 000 m
• unshielded, max.	600 m
<b>Encoder</b>	
Connectable encoders	
• 2-wire sensor	Yes
— permissible quiescent current (2-wire sensor), max.	2 mA
<b>Interrupts/diagnostics/status information</b>	
Alarms	No
Diagnostics function	No
Diagnostics indication LED	
• Status indicator digital input (green)	Yes
• Status indicator digital output (green)	Yes
<b>Potential separation</b>	
Potential separation digital inputs	
• between the channels	Yes
• between the channels, in groups of	8
• between the channels and backplane bus	Yes; Optocoupler
Potential separation digital outputs	
• between the channels	Yes
• between the channels, in groups of	8
• between the channels and backplane bus	Yes; Optocoupler
<b>Isolation</b>	
Isolation tested with	500 V DC
<b>connection method / header</b>	
required front connector	20-pin

Dimensions	
Width	40 mm
Height	125 mm
Depth	120 mm
Weights	
Weight, approx.	220 g
<b>last modified:</b>	1/16/2021 