



SIMATIC S7-300, DIGITAL MODULE SM 323, OPTICALLY ISOLATED, 16 DI AND 16 DO, 24V DC, 0.5A, AGGREGATE CURRENT 4A, 1X40 PIN

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
Input current	
from load voltage L+ (without load), max.	80 mA
from backplane bus 5 V DC, max.	80 mA
Power losses	
Power loss, typ.	6.5 W
Digital inputs	
Number of digital inputs	16
Input characteristic curve in accordance with IEC 61131, type 1	Yes
Number of simultaneously controllable inputs	
all mounting positions	
— up to 40 °C, max.	16
— up to 60 °C, max.	8
Input voltage	
• Type of input voltage	DC
• Rated value (DC)	24 V
• for signal "0"	-30 to +5V
• for signal "1"	13 to 30V
Input current	

• for signal "1", typ.	7 mA
<b>Input delay (for rated value of input voltage)</b>	
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
<b>Cable length</b>	
• shielded, max.	1 000 m
• Unshielded, max.	600 m
<b>Digital outputs</b>	
Number of digital outputs	16
short-circuit protection	Yes
• Response threshold, typ.	1 A
Limitation of inductive shutdown voltage to	L+ (-48 V)
Controlling a digital input	Yes
<b>Switching capacity of the outputs</b>	
• on lamp load, max.	5 W
<b>Load resistance range</b>	
• lower limit	48 Ω
• upper limit	4 kΩ
<b>Output voltage</b>	
• for signal "1", min.	L+ (-0.8 V)
<b>Output current</b>	
• for signal "1" rated value	0.5 A
• for signal "1" permissible range for 0 to 60 °C, min.	5 mA
• for signal "1" permissible range for 0 to 60 °C, max.	0.6 A
• for signal "1" minimum load current	5 mA
• for signal "0" residual current, max.	0.5 mA
<b>Output delay with resistive load</b>	
• "0" to "1", max.	100 μs
• "1" to "0", max.	500 μs
<b>Parallel switching of 2 outputs</b>	
• for increased power	No
• for redundant control of a load	Yes; only outputs of the same group
<b>Switching frequency</b>	
• with resistive load, max.	100 Hz
• with inductive load, max.	0.5 Hz
• on lamp load, max.	100 Hz
horizontal installation	

— up to 40 °C, max.	4 A
— up to 60 °C, max.	3 A
<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.	1.5 mA
<b>Isochronous mode</b>	
Isochronous operation (application synchronized up to terminal)	No
<b>Interrupts/diagnostics/status information</b>	
<b>Alarms</b>	
• Alarms	No
<b>Diagnostic messages</b>	
• Diagnostic functions	No
<b>Diagnostics indication LED</b>	
• Status indicator digital output (green)	Yes
• Status indicator digital input (green)	Yes
<b>Galvanic isolation</b>	
<b>Galvanic isolation digital inputs</b>	
• between the channels	Yes
• between the channels, in groups of	16
• between the channels and the backplane bus	Yes; Optocoupler
<b>Galvanic isolation digital outputs</b>	
• between the channels	Yes
• between the channels, in groups of	8
• between the channels and the backplane bus	Yes; Optocoupler
<b>Permissible potential difference</b>	
between different circuits	75V DC/60V AC
<b>Isolation</b>	
Isolation checked with	500 V DC
<b>Connection method</b>	
required front connector	40-pin
<b>Dimensions</b>	
Width	40 mm
Height	125 mm

Depth	120 mm
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**Weights**

Weight, approx.	260 g
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<b>last modified:</b>	12.03.2015
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