



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

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 loss	
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 +5 V
for signal "1"	13 to 30 V
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	
Cable length, shielded, max.	1000 m
Cable length unshielded, max.	600 m
Digital outputs	
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
Switching capacity of the outputs	
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 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
Output delay with resistive load	
"0" to "1", max.	100 $\mu$ s
"1" to "0", max.	500 $\mu$ s
Parallel switching of 2 outputs	

for uprating	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
<b>Total current of the outputs (per group)</b>	
<b>horizontal installation</b>	
up to 40 °C, max.	4 A
up to 60 °C, max.	3 A
<b>Cable length</b>	
Cable length, shielded, max.	1000 m
Cable length 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 mode (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	75 VDC / 60 VAC

Isolation	
Isolation tested with	500 V DC
Connection method	
required front connector	40-pin
Dimensions	
Width	40 mm
Height	125 mm
Depth	120 mm
Weights	
Weight, approx.	260 g
Status	Jul 21, 2014