



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 losses

Power loss, typ.	6.5 W
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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
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
Load resistance range	
lower limit	48 Ω
upper limit	4 kΩ
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 μs
"1" to "0", max.	500 μs
Parallel switching of 2 outputs	
for increased power	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
on lamp load, max.	100 Hz
Aggregate current of outputs (per group)	
horizontal installation	
up to 40 °C, max.	4 A
up to 60 °C, max.	3 A
Cable length	
Cable length, shielded, max.	1000 m
Cable length unshielded, max.	600 m
Encoder	
Connectable encoders	
2-wire sensor	Yes
Permissible quiescent current (2-wire sensor), max.	1.5 mA
Isochronous mode	
Isochronous operation (application synchronized up to terminal)	No
Interrupts/diagnostics/status information	
Alarms	
Alarms	No
Diagnostic messages	
Diagnostic functions	No
Diagnostics indication LED	
Status indicator digital output (green)	Yes
Status indicator digital input (green)	Yes
Galvanic isolation	
Galvanic isolation digital inputs	
between the channels	Yes
between the channels, in groups of	16
between the channels and the backplane bus	Yes ; Optocoupler
Galvanic isolation digital outputs	
between the channels	Yes
between the channels, in groups of	8
between the channels and the backplane bus	Yes ; Optocoupler
Permissible potential difference	
between different circuits	75 VDC / 60 VAC
Isolation	
Isolation checked 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
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Status Dec 20, 2014