

SIMATIC S7-300 advanced controller

I/O modules

Digital modules

SM 323/SM 327 digital input/output modules**Technical specifications** (continued)

Article number	6ES7323-1BH01-0AA0 SM323, 8DI/8DO, DC24V, 0,5A	6ES7323-1BL00-0AA0 SM323, 16DI/DO, DC24V, 0,5A	6ES7327-1BH00-0AB0 SM327, 8DI/8DX, DC24V, 0,5A
Digital outputs			
Number of digital outputs	8	16	8; can also be parameterized individually as DI
short-circuit protection	Yes	Yes	Yes
• Response threshold, typ.	1 A	1 A	1 A
Limitation of inductive shutdown voltage to	L+ (-53 V)	L+ (-48 V)	L+ (-54 V)
Controlling a digital input	Yes	Yes	Yes
Switching capacity of the outputs			
• on lamp load, max.	5 W	5 W	5 W
Load resistance range			
• lower limit	48 Ω	48 Ω	48 Ω
• upper limit	4 kΩ	4 kΩ	4 kΩ
Output voltage			
• for signal "1", min.	L+ (-0.8 V)	L+ (-0.8 V)	L+ (-1.5 V)
Output current			
• for signal "1" rated value	0.5 A	0.5 A	0.5 A
• for signal "1" permissible range for 0 to 60 °C, min.	5 mA	5 mA	5 mA
• for signal "1" permissible range for 0 to 60 °C, max.	0.6 A	0.6 A	0.6 A
• for signal "1" minimum load current	5 mA	5 mA	
• for signal "0" residual current, max.	0.5 mA	0.5 mA	0.5 mA
Output delay with resistive load			
• "0" to "1", max.	100 μs	100 μs	350 μs
• "1" to "0", max.	500 μs	500 μs	500 μs
Parallel switching of 2 outputs			
• for increased power	No	No	No
• for redundant control of a load	Yes; only outputs of the same group	Yes; only outputs of the same group	Yes; only outputs of the same group
Switching frequency			
• with resistive load, max.	100 Hz	100 Hz	100 Hz
• with inductive load, max.	0.5 Hz	0.5 Hz	0.5 Hz
• on lamp load, max.	10 Hz	100 Hz	10 Hz
Aggregate current of outputs (per group)			
horizontal installation			
- up to 40 °C, max.	4 A	4 A	4 A
- up to 60 °C, max.	4 A	3 A	3 A
vertical installation			
- up to 40 °C, max.	4 A	2 A	2 A
Cable length			
• shielded, max.	1 000 m	1 000 m	1 000 m
• Unshielded, max.	600 m	600 m	600 m

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Encoder			
Connectable encoders			
• 2-wire sensor	Yes	Yes	Yes
- Permissible quiescent current (2-wire sensor), max.	2 mA	1.5 mA	1.5 mA
Isochronous mode			
Isochronous operation (application synchronized up to terminal)	No	No	No
Interrupts/diagnostics/ status information			
Alarms			
• Alarms	No	No	No
Diagnostic messages			
• Diagnostic functions	No	No	No
Diagnostics indication LED			
• Status indicator digital output (green)	Yes	Yes	Yes
• Status indicator digital input (green)	Yes	Yes	Yes
Galvanic isolation			
Galvanic isolation digital inputs			
• between the channels	Yes	Yes	No
• between the channels, in groups of 8	8	16	
• between the channels and the backplane bus	Yes; Optocoupler	Yes; Optocoupler	Yes; Optocoupler
Galvanic isolation digital outputs			
• between the channels	Yes	Yes	No
• between the channels, in groups of 8	8	8	
• between the channels and the backplane bus	Yes; Optocoupler	Yes; Optocoupler	Yes; Optocoupler
Permissible potential difference			
between different circuits	75V DC/60V AC	75V DC/60V AC	75V DC/60V AC
Isolation			
Isolation checked with	500 V DC	500 V DC	500 V DC
Connection method			
required front connector	20-pin	40-pin	20-pin
Dimensions			
Width	40 mm	40 mm	40 mm
Height	125 mm	125 mm	125 mm
Depth	120 mm	120 mm	120 mm
Weights			
Weight, approx.	220 g	260 g	200 g

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SM 323/SM 327 digital input/output modules

Ordering data	Article No.	Article No.
SM 323 digital input/output modules		
incl. labeling strips, bus connector		
8 inputs, 8 outputs	6ES7323-1BH01-0AA0	
16 inputs, 16 outputs	6ES7323-1BL00-0AA0	
SM 327 digital input/output modules	6ES7327-1BH00-0AB0	
incl. labeling strips, bus connector		
8 inputs, 8 inputs or outputs (can be configured)		
Front connectors		
20-pin, with screw contacts		
• 1 unit	6ES7392-1AJ00-0AA0	
• 100 units	6ES7392-1AJ00-1AB0	
20-pin, with spring-loaded contacts		
• 1 unit	6ES7392-1BJ00-0AA0	
• 100 units	6ES7392-1BJ00-1AB0	
40-pin, with screw contacts		
• 1 unit	6ES7392-1AM00-0AA0	
• 100 units	6ES7392-1AM00-1AB0	
40-pin, with spring-loaded contacts		
• 1 unit	6ES7392-1BM01-0AA0	
• 100 units	6ES7392-1BM01-1AB0	
Front door, elevated design	6ES7328-0AA00-7AA0	
e.g. for 32 channel modules; enables connection of 1.3 mm ² /16 AWG wires		
SIMATIC TOP connect	See page 5/247	
Bus connectors	6ES7390-0AA00-0AA0	
1 unit (spare part)		
Labeling strips		
10 units (spare part)		
for modules with 20-pin front connector	6ES7392-2XX00-0AA0	
for modules with 40-pin front connector	6ES7392-2XX10-0AA0	
	Label cover	
	10 units (spare part)	
	for modules with 20-pin front connector	6ES7392-2XY00-0AA0
	for modules with 40-pin front connector	6ES7392-2XY10-0AA0
	Labeling sheets for machine inscription	
	for modules with 20-pin front connector, DIN A4, for printing with laser printer; 10 units	
	petrol	6ES7392-2AX00-0AA0
	light-beige	6ES7392-2BX00-0AA0
	yellow	6ES7392-2CX00-0AA0
	red	6ES7392-2DX00-0AA0
	for modules with 40-pin front connector, DIN A4, for printing with laser printer; 10 units	
	petrol	6ES7392-2AX10-0AA0
	light-beige	6ES7392-2BX10-0AA0
	yellow	6ES7392-2CX10-0AA0
	red	6ES7392-2DX10-0AA0
	SIMATIC Manual Collection	6ES7998-8XC01-8YE0
	Electronic manuals on DVD, multilingual: LOGO!, SIMADYN, SIMATIC bus components, SIMATIC C7, SIMATIC distributed I/O, SIMATIC HMI, SIMATIC Sensors, SIMATIC NET, SIMATIC PC Based Automation, SIMATIC PCS 7, SIMATIC PG/PC, SIMATIC S7, SIMATIC Software, SIMATIC TDC	
	SIMATIC Manual Collection update service for 1 year	6ES7998-8XC01-8YE2
	Current "Manual Collection" DVD and the three subsequent updates	