

SIMATIC S7-300

F digital / analog modules

SM 326 F digital output module - Safety Integrated

Overview



- Digital outputs for the fail-safe SIMATIC S7 systems
- Two versions (1 x current sourcing, 1 x current sinking)
- For connecting solenoid valves, DC contactors and indicator lights
- With integral safety functions for fail-safe operation
- Can be used in fail-safe operation
 - Centrally: with S7-31xF DP, S7-31xF PN/DP
 - Distributed in ET 200M: with SIMATIC IM 151-7 F-CPU, S7-31xF-2 DP, S7-41xF-2 and S7-400F/FH

Technical specifications

	6ES7 326-2BF10-0AB0	6ES7 326-2BF41-0AB0
Supply voltages		
Load voltage L+		
• Rated value (DC)	24 V; 1L+, 2L+, 3L+	24 V; 1L+, 2L+, 3L+
Current consumption		
from load voltage 1L+, max.	100 mA; from supply voltage	75 mA; from supply voltage
from load voltage 2L+ (without load), max.	100 mA	100 mA
from load voltage 3L+ (without load), max.	100 mA	100 mA
from backplane bus 5 V DC, max.	100 mA	100 mA
Power loss		
Power loss, typ.	6 W	12 W
Connection method		
required front connector	40-pin	40-pin
Digital outputs		
Number of digital outputs	10	8
Short-circuit protection	Yes; Electronic	Yes; Electronic
Limitation of inductive shutdown voltage to		L+ (-33 V)
Lamp load, max.	5 W	5 W
Output voltage		
• for signal "1" without series diode, min.		L+ (-1.0 V)
Output current		
• for signal "1" rated value	2 A	2 A
• for signal "1" permissible range for 0 to 40 °C, min.	7 mA	7 mA
• for signal "1" permissible range for 0 to 40 °C, max.		2 A; 2 A for horizontal installation, 1 A for vertical installation

	6ES7 326-2BF10-0AB0	6ES7 326-2BF41-0AB0
Output current		
• for signal "1" permissible range for 40 to 60 °C, min.	7 mA	7 mA
• for signal "1" permissible range for 40 to 60 °C, max.		1 A; for horizontal installation
• for signal "0" residual current, max.	0.5 mA	0.5 mA
Switching frequency		
• with resistive load, max.	25 Hz	30 Hz
• with inductive load, max.	25 Hz	2 Hz
• on lamp load, max.	10 Hz	10 Hz
Aggregate current of outputs (per group)		
• horizontal installation		
- up to 40 °C, max.	10 A	7.5 A
- up to 60 °C, max.	6 A	5 A
• vertical installation		
- up to 40 °C, max.	5 A	5 A
Cable length		
• Cable length, shielded, max.	1 000 m	200 m; 200 m for SIL3, AK 6, Cat 4
• Cable length unshielded, max.	600 m	
Interrupts/diagnostics/status information		
Alarms		
• Diagnostic alarm	Yes	Yes; Parameterizable
Diagnoses		
• Diagnostic information readable	Yes	Yes
Isolation		
Isolation checked with	370 V for 1 min	500 V DC / 350 V AC

Technical specifications (continued)

	6ES7 326-2BF10-0AB0	6ES7 326-2BF41-0AB0		6ES7 326-2BF10-0AB0	6ES7 326-2BF41-0AB0
Galvanic isolation			Standards, approvals, certificates		
Galvanic isolation digital outputs			Highest safety class achievable in safety mode		
• between the channels	Yes	Yes	• to DIN VDE 0801	AK 5 and 6	
• between the channels, in groups of	5	4	• acc. to EN 954	Cat. 4	Cat. 4
• between the channels and the backplane bus	Yes	Yes	• acc. to IEC 61508	SIL 3	SIL 3
• between the channels and the power supply of the electronics	Yes	Yes	Dimensions and weight		
			Dimensions		
			• Width	40 mm	80 mm
			• Height	125 mm	125 mm
			• Depth	120 mm	120 mm
			Weight		
			• Weight, approx.	330 g	465 g

Ordering data
F digital output module SM 326

10 outputs, 24 V DC, 2 A PP; width 40 mm

Order No.
6ES7 326-2BF10-0AB0

8 outputs, 24 V DC, 2 A PM; width 80 mm

6ES7 326-2BF41-0AB0
Accessories
Distributed Safety V5.4 programming tool

Task:
Software for configuring fail-safe user programs for SIMATIC S7-300F, S7-400F, ET 200S

Requirement:
STEP 7 V5.3 SP3 and higher

Floating license

6ES7 833-1FC02-0YA5

Software Update Service

6ES7 833-1FC00-0YX2
Distributed Safety Upgrade

 From V5.x to V5.4;
Floating license for 1 user

6ES7 833-1FC02-0YE5
Labeling sheet with strips for 10 electronic blocks

- For 16-channel electronic blocks incl. add-on terminals
- For 32-channel electronic blocks incl. add-on terminals

6ES7 193-1BH00-0XA0
6ES7 193-1BL00-0XA0
Connecting cable for PROFIBUS
6ES7 901-4BD00-0XA0

12 Mbit/s, for connecting PG to PROFIBUS DP, pre-assembled with 2 x 9-pin Sub-D connector, 3 m

PROFIBUS bus connector

- 90° cable outlet, terminating resistor with isolating function, without PG socket, up to 12 Mbit/s
- 90° cable outlet, terminating resistor with isolating function, without PG socket, up to 12 Mbit/s

6ES7 972-0BA12-0XA0
6ES7 972-0BB12-0XA0
Order No.
PROFIBUS bus connector

- 90° cable outlet, FastConnect terminating resistor with isolating function, without PG socket, up to 12 Mbit/s;
 - 1 unit
 - 100 units
- 90° cable outlet, FastConnect terminating resistor with isolating function, with PG socket, up to 12 Mbit/s;
 - 1 unit
 - 100 units

6ES7 972-0BA52-0XA0
6ES7 972-0BA52-0XB0
6ES7 972-0BB52-0XA0
6ES7 972-0BB52-0XB0
DIN rail for active bus modules

for max. 5 active bus modules, for function "Insertion and removal"

- 483 mm (19") long
- 530 mm long
- 620 mm long
- 2000 mm long

6ES7 195-1GA00-0XA0
6ES7 195-1GF30-0XA0
6ES7 195-1GG30-0XA0
6ES7 195-1GC00-0XA0
Active bus module

BM 1 x 80 for 1 module with 80 mm width

6ES7 195-7HC00-0XA0
SITOP power supply module

for ET 200M; 120/230 V AC, 24 V DC, 5 A; Type PS 307-1E

6ES7 307-1EA00-0AA0

C: Subject to export regulations: AL: N and ECCN: EAR99H