MANUFACTURER DOCUMENT PACKAGE

Manufacturer's Manual

Selected official pages for procurement and maintenance review

PRODUCT BRAND

Siemens

PRODUCT MODEL

6ES7322-1BF01-0AA0

Eight-Channel Digital Output Module. Relevant section pages: 148, 149, 150, 151. Adjacent model text on shared pages is outside this product reference.

OFFICIAL SOURCE

S7-300 Module data; 05/2022, A5E00105505-AK

Siemens original documentation and product reference

AMIKON PRODUCT SUPPORT

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AMIKONG.COM

Amikon Limited prepared this independent reference package. Selected manufacturer pages follow with their original content and pagination visible.

SIEMENS

SIMATIC

S7-300
S7-300 Module data

Equipment Manual

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S7-300
S7-300 Module data

Equipment Manual

Legal information

Warning notice system

This manual contains notices you have to observe in order to ensure your personal safety, as well as to prevent damage to property. The notices referring to your personal safety are highlighted in the manual by a safety alert symbol, notices referring only to property damage have no safety alert symbol. These notices shown below are graded according to the degree of danger.

⚠ DANGER

indicates that death or severe personal injury **will** result if proper precautions are not taken.

⚠ WARNING

indicates that death or severe personal injury **may** result if proper precautions are not taken.

⚠ CAUTION

indicates that minor personal injury can result if proper precautions are not taken.

NOTICE

indicates that property damage can result if proper precautions are not taken.

If more than one degree of danger is present, the warning notice representing the highest degree of danger will be used. A notice warning of injury to persons with a safety alert symbol may also include a warning relating to property damage.

Qualified Personnel

The product/system described in this documentation may be operated only by **personnel qualified** for the specific task in accordance with the relevant documentation, in particular its warning notices and safety instructions. Qualified personnel are those who, based on their training and experience, are capable of identifying risks and avoiding potential hazards when working with these products/systems.

Proper use of Siemens products

Note the following:

⚠ WARNING

Siemens products may only be used for the applications described in the catalog and in the relevant technical documentation. If products and components from other manufacturers are used, these must be recommended or approved by Siemens. Proper transport, storage, installation, assembly, commissioning, operation and maintenance are required to ensure that the products operate safely and without any problems. The permissible ambient conditions must be complied with. The information in the relevant documentation must be observed.

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Disclaimer of Liability

We have reviewed the contents of this publication to ensure consistency with the hardware and software described. Since variance cannot be precluded entirely, we cannot guarantee full consistency. However, the information in this publication is reviewed regularly and any necessary corrections are included in subsequent editions.

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Technical specifications	
Switching frequency	
• with resistive load • with inductive load to IEC 947-5-1, AC 15	max. 10 Hz max. 0.5 Hz
• with lamp load	max. 1 Hz
Short-circuit protection of the output	Fuse 8 A, 250 V; per group
• Fuse-tripping current	min. 40 A
• Response time	max. 300 ms
Replacement fuses	8 A fuse, fast-blowing
• Wickman • Schurter • Littlefuse	19 194-8 A SP001.1014 217.008
Fuse holder	
• Wickman	19 653
Wiring of the actuators	using a 20-pin front connector

3.28 Digital output module SM 322; DO 8 x DC 24 V/2 A; (6ES7322-1BF01-0AA0)

Order number

6ES7322-1BF01-0AA0

Properties

Properties of SM 322; DO 8 x DC 24 V/2 A:

- 8 outputs, electrically isolated in groups of 4
- Output current 2 A
- Rated load voltage 24 V DC
- Suitable for solenoid valves, DC contactors and signal lamps

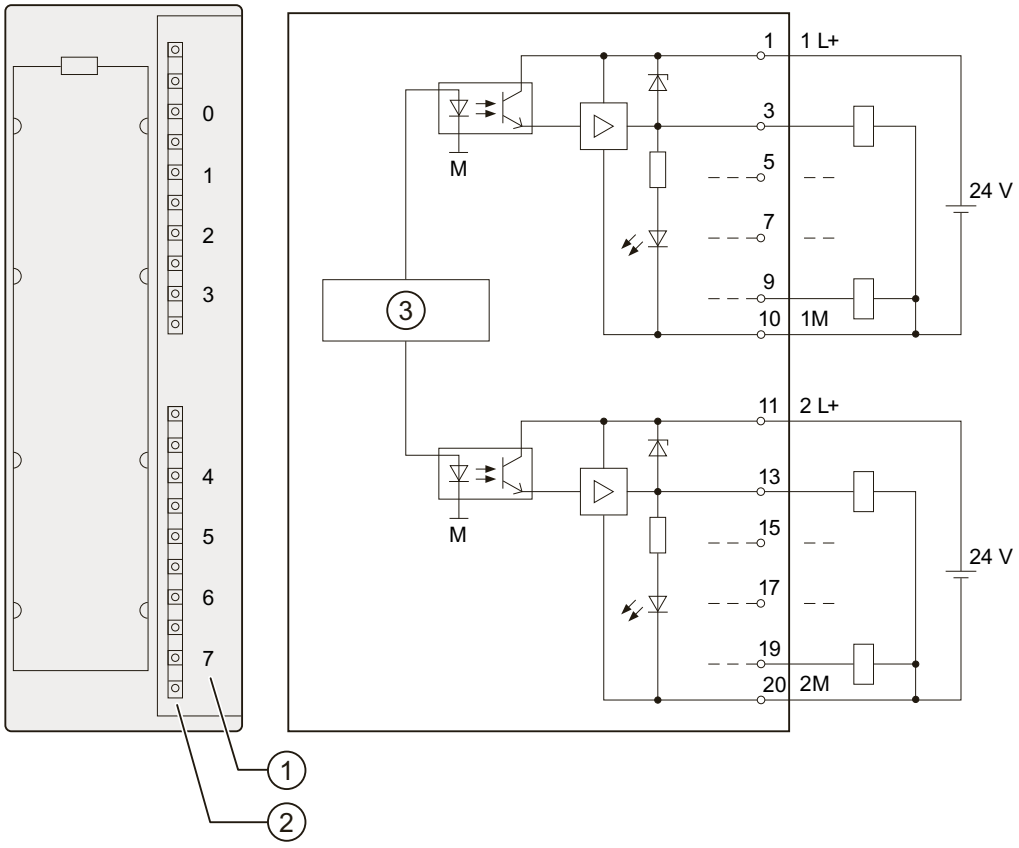
Use of the module with high-speed counters

Please note when using the module in combination with high-speed counters:

NOTE

When using a mechanical contact to switch on the 24-V power supply to SM 322; DO 8 x DC 24 V/2 A, the module outputs will carry a "1" signal for the duration of ca. 50 µs due to the circuit structure.

Wiring and block diagram of SM 322; DO 8 x DC 24 V/2 A



① Channel number
② Status display - green
③ Backplane bus interface

SM 322; DO 8 x DC 24 V/2 A - Technical specifications

Technical specifications	
Dimensions and weight	
Dimensions W x H x D (mm)	40 x 125 x 117
Weight	ca. 190 g
Module-specific data	
Supports isochronous mode	no
Number of outputs	8
Cable length • unshielded • shielded	 max. 600 m max. 1000 m
Voltages, currents, electrical potentials	
Rated load voltage L+	24 V DC
Total current of outputs (per group)	

Technical specifications	
• horizontal mounting position to 60 °C	max. 4 A
• vertical mounting position to 40 °C	max. 4 A
Electrical isolation	
• between channels and the backplane bus	yes
• between channels in groups of	yes 4
Isolation test voltage	500 V DC
Current consumption • from the backplane bus • from load voltage L+ (no-load)	 max. 40 mA max. 60 mA
Power loss of the module	typ. 6.8 W
Status, interrupts, diagnostics	
Status display	green LED per channel
Interrupts	none
Diagnostic functions	none
Actuator selection data	
Output voltage • "1" signal	min. L+ (- 0.8 V)
Output current	
• "1" signal Rated value Permitted range	 2 A 5 mA to 2.4 A
• with "0" signal (residual current)	max. 0.5 mA
Output delay (with resistance load)	
• "0" to "1" transition	max. 100 µs
• "1" to "0" transition	max. 500 µs
Load resistance range	12 Ω to 4 kΩ
Lamp load	max. 10 W
Wiring two outputs in parallel	
• for redundant load control	supported (only outputs of the same group)
• for performance increase	not supported
Control of a digital input	supported
Switching frequency	
• with resistive load	max. 100 Hz
• with inductive load to IEC 947-5-1, DC 13	max. 0.5 Hz
• with lamp load	max. 10 Hz
Internal limiting of the inductive shutdown voltage to	typ. L + (-48 V)

Technical specifications	
Short-circuit protection of the output	yes, electronic
• Threshold	typ. 3 A
Wiring of the actuators	using a 20-pin front connector

3.29 Digital output module SM 322; DO 8 x DC 24 V/ 0.5 A; with diagnostics interrupt; (6ES7322-8BF00-0AB0)

Order number: "Standard module"

6ES7322-8BF00-0AB0

Order number: "SIPLUS S7-300 module"

6AG1322-8BF00-2AB0

Properties

Properties of SM 322; DO 8 x DC 24 V/0.5 A:

- 8 outputs, electrically isolated in groups of 8
- Output current 0.5 A
- Rated load voltage 24 V DC
- Suitable for solenoid valves, DC contactors and signal lamps
- 2 terminals per output
  - Output without series diode
  - Output with series diode (for redundant load control)
- Group error display (SF)
- Channel-specific status and error LEDs
- Programmable diagnostics
- Programmable diagnostic interrupt
- Programmable substitute value output
- Supports parameter reassignment in RUN