

MANUFACTURER DOCUMENT PACKAGE

Manufacturer's Manual

Reference package for procurement and maintenance review

SIEMENS

6ES7332-5HD01-0AB0

FOUR-CHANNEL ANALOG OUTPUT MODULE

Used with the applicable SIMATIC S7-300 configuration.

REFERENCE PACKAGE

OFFICIAL DOCUMENT

Selected official manufacturer pages follow this cover.

Source: SIMATIC S7-300 Module Data

Substitute values

You can configure the SM 332; AO 4 x 16 Bit for CPU STOP mode as follows: Outputs off power, hold last value or set substitute values. The set substitute values must lie within the output range.

6.14 Analog output module SM 332; AO 4 x 12 Bit; (6ES7332-5HD01-0AB0)

Order number

6ES7332-5HD01-0AB0

Order number: "SIPLUS S7-300 module"

6AG1332-5HD01-7AB0

Properties

- 4 outputs in one group
- The output can be selected by individual channel
 - Voltage output
 - Current output
- Resolution 12 bits
- Programmable diagnostics and diagnostic interrupt
- Electrically isolated to backplane bus interface and load voltage
- Supports parameter reassignment in RUN

Diagnostics

For information on diagnostic messages at the "group diagnostics" parameter, refer to chapter Diagnostic messages of analog output modules [\(Page 246\)](#).

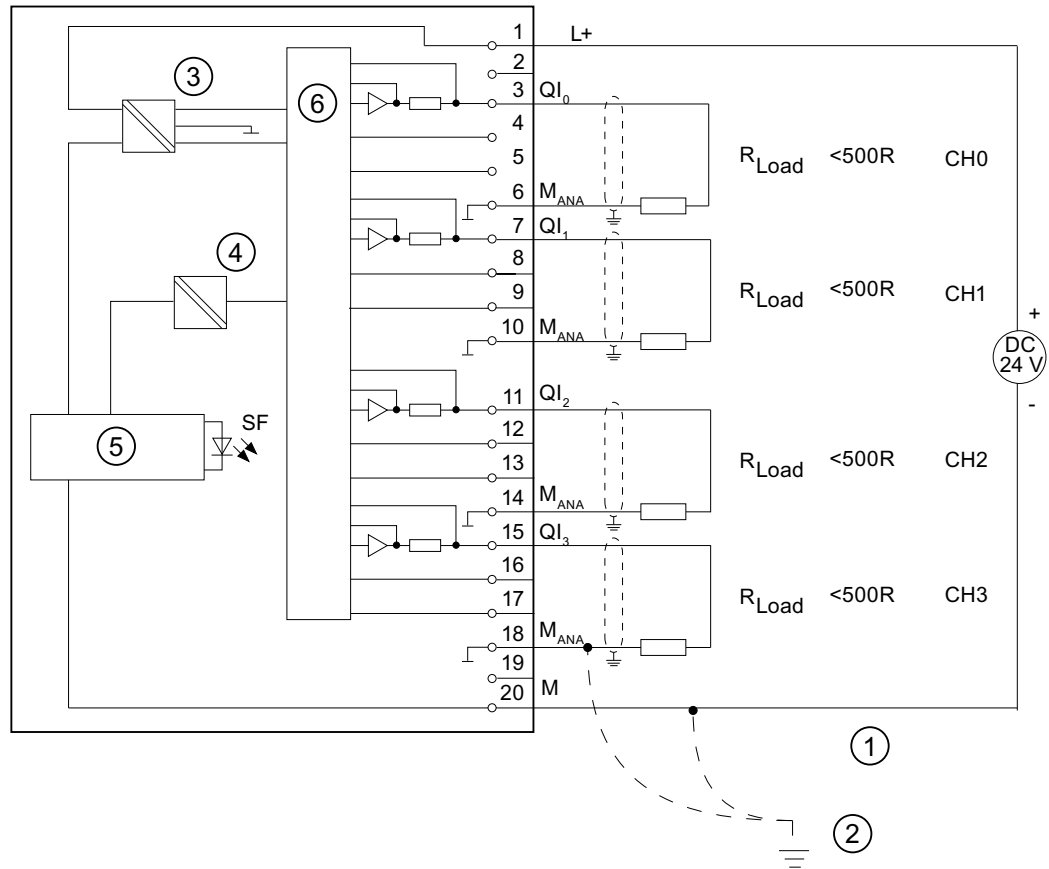
Terminal assignment

The diagrams below show various wiring options.

NOTE

When you switch the rated load voltage (L+) off and on, the outputs can return incorrect voltage/current values for the duration of about 500 ms.

Wiring: Current output



- ① Equipotential bonding
- ② Functional earthing
- ③ Internal supply
- ④ Electrical isolation
- ⑤ Backplane bus interface
- ⑥ Analog-to-Digital Converter (ADC)

Figure 6-47 Wiring and block diagram

Technical specifications

Technical specifications	
Dimensions and weight	
Dimensions W x H x D (mm)	40 x 125 x 117
Weight	ca. 220 g
Module-specific data	
Supports parameter reassignment in RUN	yes
Reaction of non-programmed outputs	Return the output value which was valid before the parameterization
Supports isochronous mode	no
Number of outputs	4

6.14 Analog output module SM 332; AO 4 x 12 Bit; (6ES7332-5HD01-0AB0)

Technical specifications	
Cable length • shielded	max. 200 m
Voltages, currents, electrical potentials	
Rated load voltage L+ • Reverse polarity protection	24 V DC Yes
Electrical isolation • between channels and the backplane bus • between channels and electronics power supply • between channels • between channels and load voltage L+	Yes Yes no Yes
Maximum potential difference • between S- and M _{ANA} (CMV)	3 V DC
Isolation test voltage	500 V DC
Current consumption • from the backplane bus • from load voltage L+ (no-load)	max. 60 mA max. 240 mA
Power loss of the module	typ. 3 W
Generation of analog values	
Resolution (including overshoot range) • ± 10 V; ± 20 mA; • 4 mA to 20 mA; 1 V to 5 V • 0 V to 10 V; 0 mA to 20 mA	11 bits + sign 12 bits
Conversion time (per channel)	max. 0.8 ms
Transient recovery time • with resistive load • with capacitive load • with inductive load	0.2 ms 3.3 ms 0.5 ms (1 mH) 3.3 ms (10 mH)
Interference frequency suppression, error limits	
Crosstalk between outputs	> 40 dB
Operational limit (across entire temperature range, relative to measurement range end value in the selected output range)	
• Voltage output • Current output	± 0.5 % ± 0.6 %
Basic error limit (operational limit at 25 °C, relative to the measurement range end value in the selected output range)	
• Voltage output • Current output	± 0.4 % ± 0.5 %
Temperature error (relative to output range)	± 0.002 %/K
Linearity error (relative to output range)	± 0.05 %
Repeat accuracy (in settled state at 25 °C, relative to output range)	± 0.05 %
Output ripple; range 0 Hz to 50 kHz (relative to output range)	± 0.05 %
Status, interrupts, diagnostics	
Interrupts • Diagnostic interrupt	Programmable