12.14 2DO 24 VDC/2 A Standard digital electronic module (6ES7132-4BB30-0AA0)

Order number

6ES7132-4BB30-0AA0

Features

- Digital electronic module with two outputs
- Output current 2 A per output
- Rated load voltage 24 VDC
- Suitable for solenoid valves, DC contactors, and indicator lights

Peculiarity

When you connect the 24 VDC rated load voltage to the power module by means of a mechanical contact, depending on the circuit the digital outputs carry the “1” signal for approximately 50 µs. You need to take this into account if you connect the module to fast counters.

Terminal assignment

The following table indicates the terminal assignment of the 2DO 24 VDC, 2 A Standard for the different terminal modules:

Table 12-22 Terminal assignment of the 2DO 24 VDC/2 A Standard

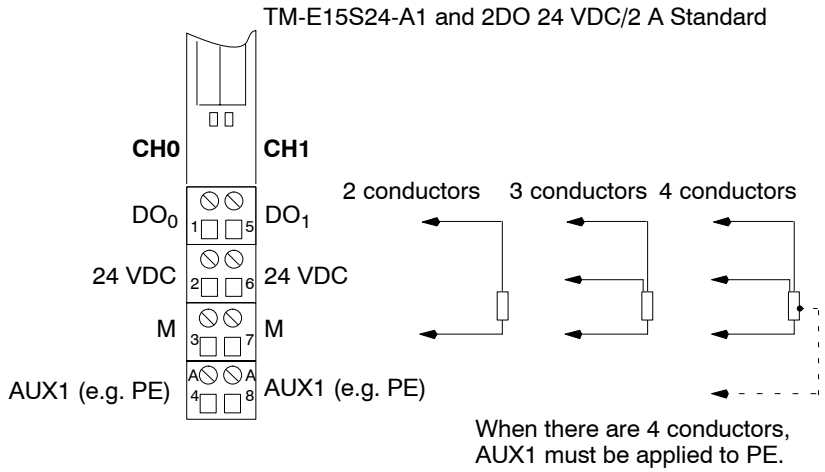
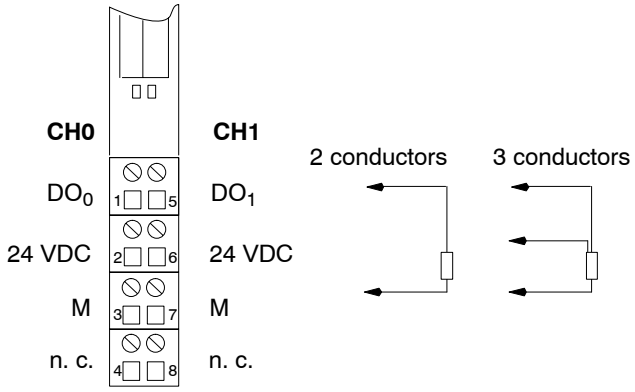
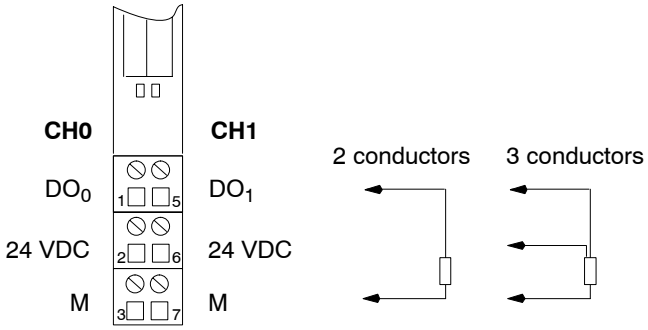
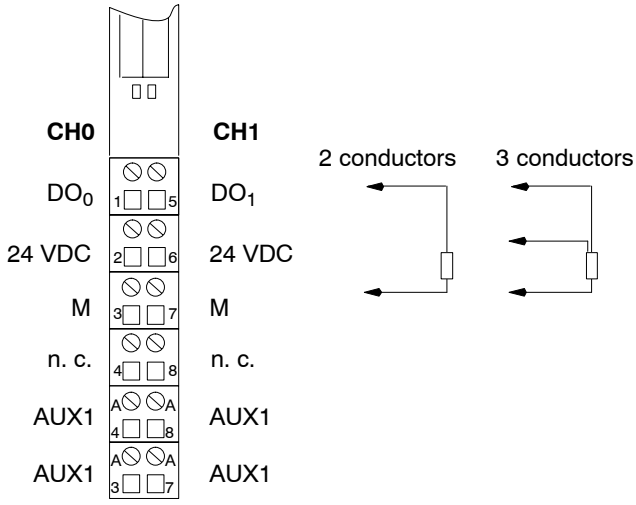
View	Terminal assignment	Remarks
		Channel 0: Terminals 1 to A4 Channel 1: Terminals 5 to A8 DO: Output signal (maximum 2 A per channel) 24 VDC: Sensor supply M: Ground, load power supply

Table 12-22 Terminal assignment of the 2DO 24 VDC/2 A Standard, continued

View	Terminal assignment	Remarks
TM-E15S24-01 and 2DO 24 VDC/2 A Standard  **CH0** **CH1** DO_0 DO_1 24 VDC 24 VDC M M n. c. n. c. 2 conductors 3 conductors		Channel 0: Terminals 1 to 4 Channel 1: Terminals 5 to 8 DO: Output signal (maximum 2 A per channel) 24 VDC: Sensor supply M: Ground, load power supply Terminals 4 and 8 can be used for unneeded wires of up to 30 VDC.
TM-E15S23-01 and 2DO 24 VDC/2 A Standard  **CH0** **CH1** DO_0 DO_1 24 VDC 24 VDC M M 2 conductors 3 conductors		Channel 0: Terminals 1 to 3 Channel 1: Terminals 5 to 7 DO: Output signal (maximum 2 A per channel) 24 VDC: Sensor supply M: Ground, load power supply
TM-E15S26-A1 and 2DO 24 VDC/2 A Standard  **CH0** **CH1** DO_0 DO_1 24 VDC 24 VDC M M n. c. n. c. AUX1 AUX1 AUX1 2 conductors 3 conductors		Channel 0: Terminals 1 to A3 Channel 1: Terminals 5 to A7 DO: Output signal (maximum 2 A per channel) 24 VDC: Sensor supply M: Ground, load power supply Terminals 4 and 8 can be used for unneeded wires of up to 30 VDC.

Block diagram

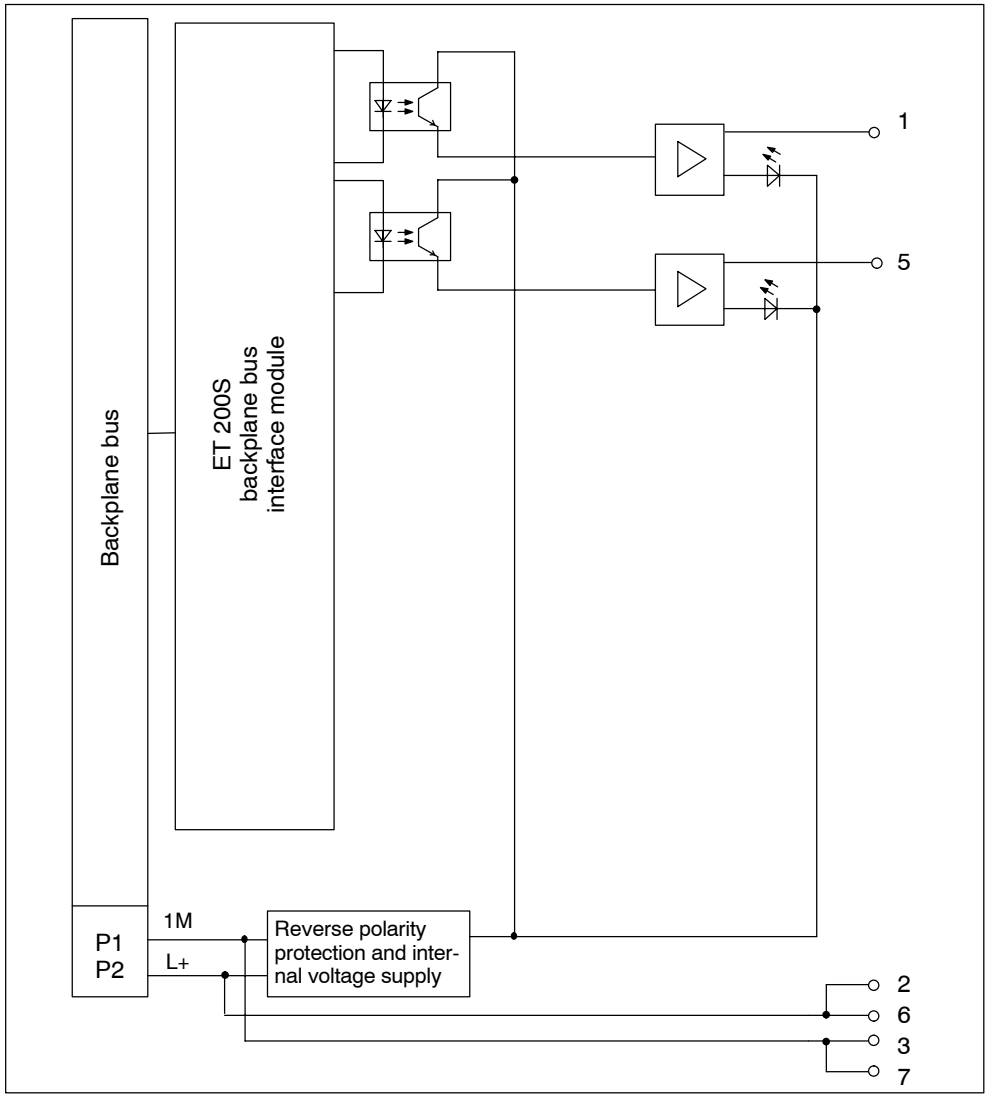


Figure 12-16 Block diagram of the 2DO 24 VDC/2 A Standard

Technical specifications

Dimensions and weight	
Dimensions W × H × D (mm)	15 × 81 × 52
Weight	Approx. 40 g
Data for specific modules	
Supports clocked operation	No
Number of outputs	2
Length of cable	
• Unshielded	Max. 600 m
• Shielded	Max. 1000 m
Voltages, currents, potentials	
Rated load voltage L+ (from the power module)	24 VDC
• Polarity reversal	Yes[1)]
Total current of the outputs (per module)	4 A
Isolation	
• Between the channels	No
• Between the channels and backplane bus	Yes
Permissible potential difference	
• Between the different circuits	75 VDC, 60 VAC
Insulation tested	500 VDC
Current consumption	
• From rated load voltage L+ (no load)	Max. 5 mA per channel
Power dissipation of the module	Typ. 1.4 W
Status, interrupts, diagnostics	
Status display	Green LED per channel
Diagnostic functions	No

Data for selecting an actuator	
Output voltage	
• At signal “1”	Min. L+ (-1 V)
Output current	
• At signal “1”	
– Rated value	2 A
– Permitted range	7 mA to 2.4 A
• With signal “0” (leakage current)	Max. 0.5 mA
Output delay (for resistive load)	
• At “0” to “1”	Max. 200 µs
• At “1” to “0”	Max. 1.3 ms
Load resistor range	12 Ω to 3.4 kΩ
Lamp load	Max. 10 W
Connecting two outputs in parallel	
• For redundant triggering of a load	Yes (per module)
• To increase performance	No
Control of a digital input	Yes
Switch rate	
• For resistive load	100 Hz
• With inductive load	2 Hz (0.5 H)
• For lamp load	10 Hz
Limitation (internal) of the voltage induced on circuit interruption	Typ. L+ (–55 to –60 V)
Reverse-voltage proof	Yes, if using the same load voltage as at the power module
Short-circuit protection of the output	Yes[2)]
• Threshold on	Typ. 2.8 to 7.2 A

1) Polarity reversal can lead to the digital outputs being connected through

2) Per channel