

MANUFACTURER DOCUMENT PACKAGE

Manufacturer's Manual

Reference package for procurement and maintenance review

SIEMENS

6ES7131-4BD50-0AA0

FOUR-CHANNEL SOURCE DIGITAL INPUT MODULE

Used with the applicable SIMATIC ET 200S configuration.

REFERENCE PACKAGE

OFFICIAL DOCUMENT

Selected official manufacturer pages follow this cover.

Source: Siemens documentation from 6ES7131-4BD50-0AA0.pdf

12.4 4DI 24 VDC/SRC Standard digital electronic module (6ES7131-4BD50-0AA0)

Order number

6ES7131-4BD50-0AA0

Features

- Digital electronic module with four inputs
- Source input
- Rated input voltage 24 VDC
- Suitable for switches and proximity switches (BEROs)

Terminal assignment

The following table indicates the terminal assignment of the 4DI 24 VDC/SRC Standard for the different terminal modules:

Table 12-6 Terminal assignment of the 4DI 24 VDC/SRC Standard

View	Terminal assignment	Remarks
CH0 CH2 DI₀ DI₂ M AUX1 (e.g. 24 VDC)	TM-E15S24-A1 and 4DI 24 VDC/SRC Standard CH1 CH3 DI₁ DI₃ M AUX1 (e.g. 24 VDC) 2 conductors	Channel 0: Terminals 1 and 3 Channel 1: Terminals 5 and 7 Channel 2: Terminals 2 and 3 Channel 3: Terminals 6 and 7 DI: Input signal M: Sensor supply

Table 12-6 Terminal assignment of the 4DI 24 VDC/SRC Standard, continued

View	Terminal assignment		Remarks
TM-E15S24-01 and 4DI 24 VDC/SRC Standard	Channel 0: Terminals 1 and 3 Channel 1: Terminals 5 and 7 Channel 2: Terminals 2 and 4 Channel 3: Terminals 6 and 8 DI: Input signal M: Sensor supply		
TM-E15S23-01 and 4DI 24 VDC/SRC Standard	Channel 0: Terminals 1 and 3 Channel 1: Terminals 5 and 7 Channel 2: Terminals 2 and 3 Channel 3: Terminals 6 and 7 DI: Input signal M: Sensor supply		
TM-E15S26-A1 and 4DI 24 VDC/SRC Standard	Channel 0: Terminals 1 and 3 Channel 1: Terminals 5 and 7 Channel 2: Terminals 2 and 4 Channel 3: Terminals 6 and 8 DI: Input signal M: Sensor supply		

Block diagram

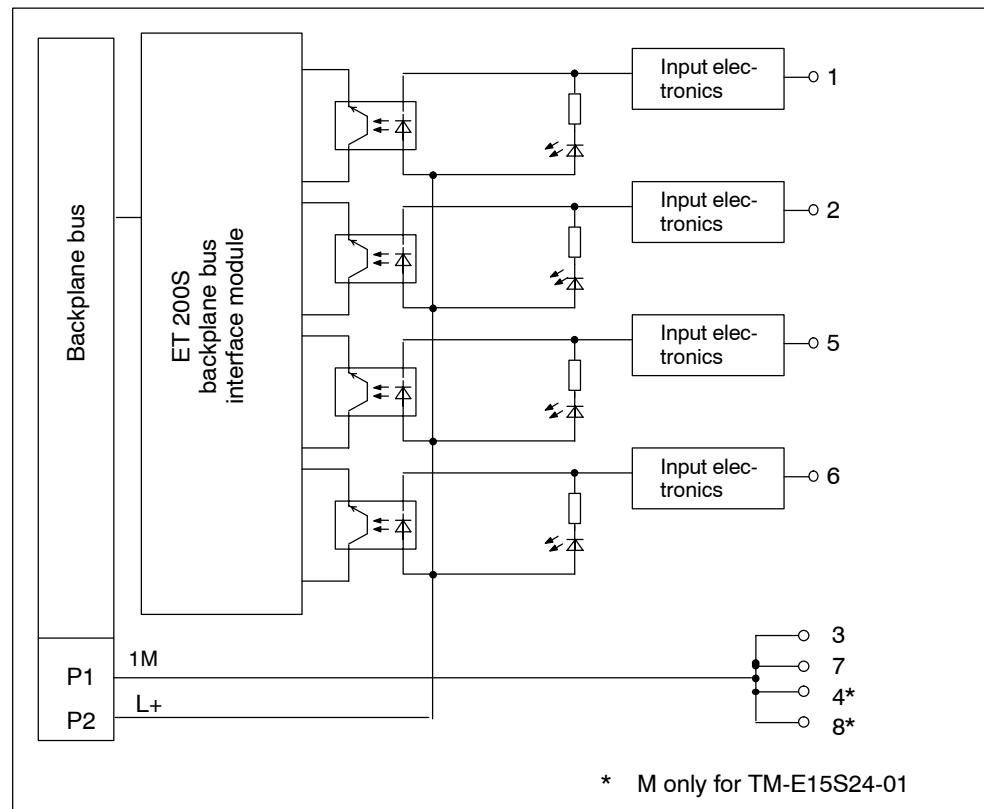


Figure 12-5 Block diagram of the 4DI 24 VDC/SRC Standard

Technical specifications

Dimensions and weight		Sensor supply output	
Dimensions W × H × D (mm)	15 × 81 × 52	Output voltage	
Weight	Approx. 35 g	• With load	Max. M +0.5 V
Data for specific modules		Output current	
Number of inputs	4	• Rated value	500 mA
Length of cable		• Permitted range	0 to 500 mA
• Unshielded	Max. 600 m	Data for selecting a sensor	
• Shielded	Max. 1000 m	Input voltage	
Voltages, currents, potentials		• Rated value	24 VDC
Rated supply voltage (from the power module)	24 VDC	• For signal "1"	-15 to -30 V ¹⁾
• Reverse polarity protection	Yes	• For signal "0"	30 to -5 V ¹⁾
Isolation		Input current	
• Between the channels	No	• At signal "1"	Typ. 7 mA (at 24 V)
• Between the channels and backplane bus	Yes	Input delay	
Permissible potential difference		• At "0" to "1"	Typ. 3 ms (2.0 to 4.5 ms)
• Between the different circuits	75 VDC, 60 VAC	• At "1" to "0"	Typ. 3 ms (2.0 to 4.5 ms)
Insulation tested with	500 VDC	Input characteristic curve	To IEC 61131, Type 1
Current consumption		Connection of two-wire BEROs	Possible
• From supply voltage	Dependent on the sensor	• Permitted bias current	Max. 1.5 mA
Power dissipation of the module	Typ. 0.7 W		
Status, interrupts, diagnostics			
Status display	Green LED per channel		
Diagnostic functions	No		

¹⁾ Reference potential is L+