

SIEMENS

SIMATIC

ET 200S distributed I/O
2AI I 2WIRE ST analog electronic
module (6ES7134-4GB01-0AB0)

Manual

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2AI I 2WIRE ST technical data (6ES7134-4GB01-0AB0)

Dimensions and weight		
Width (mm)	15	
Weight	Approx. 40 g	
Module-specific data		
Supports isochronous operation	No	
Number of inputs	2	
Cable length		
• Shielded	Max. 200 m	
Parameter length	4 bytes	
Address space	4 bytes	
Voltages, currents, potentials		
Rated load voltage L+ (from the power module)	24 VDC	
• Reverse polarity protection	Yes	
Power supply of the transducers	Yes	
• Short-circuit protection	Yes, (destruction limit 35 mA per channel)	
Electrical isolation		
• Between the channels and backplane bus	Yes	
• Between the channels and load voltage L+	No	
• Between the channels	No	
• Permissible potential difference		
• Between M _{ANA} and the backplane bus (U _{iso})	75 V DC/60 V AC	
Insulation tested	500 VDC	
Current consumption		
• From load voltage L+	Max. 80 mA	
Power dissipation of the module	Typically 0.6 W	
Status, interrupts, diagnostics		
Diagnostics function		
• Group error	Red "SF" LED	
• Diagnostic functions readable	Yes	
Analog value generation		
Measuring principle	Integrative	
Integration and cycle time/resolution per channel:		
• Integration time can be assigned parameters	Yes	
• Interference frequency suppression in Hz	60	50
• Integration time in ms	16,7	20
• Conversion time in ms	55	65
• Cycle time in ms	Number of active channels per module x conversion time	
• Resolution (including overshoot range)	4 to 20 mA/13 bits	

Properties

1.1 2AI I 2WIRE ST analog electronic module (6ES7134-4GB01-0AB0)

Suppression of interference, limits of error		
Interference voltage suppression for $f = n \times (f_1 \pm 1 \%)$, (f_1 = interference frequency)		
• Common mode interference (peak value of interference < rated value of input range)	Min. 70 dB	
Crosstalk between the inputs	Min. -50 dB	
Operational limit (in the entire temperature range, with reference to the input range)	$\pm 0,6 \%$	
Basic error limit (operational limit at 25°C with reference to input range)	$\pm 0,4 \%$	
Temperature error (with reference to the input range)	$\pm 0.005 \%/K$	
Linearity error (with reference to the input range)	$\pm 0,01 \%$	
Repeatability (in steady state at 25°C with reference to input range)	$\pm 0,05 \%$	
Data for selecting a sensor		
Input range (rated value)/input resistance		
• Current	4 to 20 mA/50 Ω	
Permitted input current (destruction limit)	40 mA	
Load of the two-wire measuring transducer	Max. 750 Ω	
Smoothing of the measured values	Yes, can be assigned parameters in 4 steps by means of digital filtering	
	Step	Time constant
	None	1 x cycle time
	Weak	4 x cycle time
	Medium	32 x cycle time
	Strong	64 x cycle time

Parameters

2.1 Parameters

Table 2-1 Parameters for analog input module

2 AI 2WIRE ST	Range of values	Default setting	Applicability
Group diagnostics (parameter assignment error, internal error)	• Disable • Enable	Disable	Module
Diagnostics: Overflow/underflow	• Disable • Enable	Disable	Module
Diagnostics: Wire break	• Disable • Enable	Disable	Channel
Smoothing	• None • Weak • Medium • Strong	None	Channel
Type/range of measurement	• Deactivated • 2WIRE: 4 to 20 mA	2WIRE: 4 to 20 mA	Channel