SIEMENS

Data sheet

6ES7134-6FB00-0BA1



SIMATIC ET 200SP, Analog input module, AI 2xU Standard Pack quantity: 1 unit, suitable for BU type A0, A1, Color code CC00, Module diagnostics, 16 bit

General information		
Product type designation	AI 2xU ST	
HW functional status	from FS21	
Firmware version	V1.0.1	
FW update possible	Yes	
usable BaseUnits	BU type A0, A1	
Color code for module-specific color identification plate	CC00	
Product function		
• I&M data	Yes; I&M0 to I&M3	
 Isochronous mode 	No	
 Measuring range scalable 	No	
Engineering with		
STEP 7 TIA Portal configurable/integrated from version	V13 SP1	
STEP 7 configurable/integrated from version	V5.5 SP3 / -	
PROFIBUS from GSD version/GSD revision	One GSD file each, Revision 3 and 5 and higher	
 PROFINET from GSD version/GSD revision 	GSDML V2.3	
Operating mode		
Oversampling	No	
• MSI	No	
CiR - Configuration in RUN		
Reparameterization possible in RUN	Yes	
Calibration possible in RUN	No	
Supply voltage		
Rated value (DC)	24 V	
permissible range, lower limit (DC)	19.2 V	
permissible range, upper limit (DC)	28.8 V	
Reverse polarity protection	Yes	
Input current		
Current consumption, max.	37 mA	
Encoder supply		
24 V encoder supply		
• 24 V	No	
Additional 24 V encoder supply		
• 24 V	No	
Power loss		
Power loss, typ.	0.9 W	
Address area		
Address space per module		
 Address space per module, max. 	4 byte; + 1 byte for QI information	

Automatic encoding	Yes
Automatic encoding	Yes
Mechanical coding element	
Type of mechanical coding element Selection of BaseUnit for connection variants	Туре А
1-wire connection	BU type A0, A1
2-wire connection	BU type A0, A1
Analog inputs	BO type A0, A1
	0
Number of analog inputs	2
For voltage measurement	2 30 V
permissible input voltage for voltage input (destruction limit), max.	50 V
Cycle time (all channels), min.	500 µs
Input ranges (rated values), voltages	
• 0 to +10 V	Yes; 15 bit
— Input resistance (0 to 10 V)	180 kΩ
• 1 V to 5 V	Yes; 15 bit
— Input resistance (1 V to 5 V)	180 kΩ
• -10 V to +10 V	Yes; 16 bit incl. sign
 Input resistance (-10 V to +10 V) 	180 kΩ
• -5 V to +5 V	Yes; 16 bit incl. sign
— Input resistance (-5 V to +5 V)	180 kΩ
Cable length	
 shielded, max. 	200 m
Analog value generation for the inputs	
Measurement principle	Sigma Delta
Integration and conversion time/resolution per channel	
 Resolution with overrange (bit including sign), max. 	16 bit
 Integration time, parameterizable 	Yes
 Interference voltage suppression for interference frequency f1 in Hz 	16.6 / 50 / 60 Hz / off
Conversion time (per channel)	50 ms @ 60 Hz, 60 ms @ 50 Hz, 180 ms @ 16.6 Hz, 250 µs without filter
Smoothing of measured values	
 Number of smoothing levels 	4
parameterizable	Yes
Step: None	Yes
Step: low	Yes; 4x smoothing
Step: Medium	Yes; 8x smoothing
Step: High	Yes; 16x smoothing
Encoder	
Connection of signal encoders	
 for voltage measurement 	Yes
Errors/accuracies	
Linearity error (relative to input range), (+/-)	0.01 %
Temperature error (relative to input range), (+/-)	0.005 %/K
Crosstalk between the inputs, min.	-50 dB
Repeat accuracy in steady state at 25 °C (relative to input range), (+/-)	0.05 %
Operational error limit in overall temperature range	
 Voltage, relative to input range, (+/-) 	0.5 %
Basic error limit (operational limit at 25 °C)	
 Voltage, relative to input range, (+/-) 	0.3 %
Interference voltage suppression for f = n x (f1 +/- 1 %), f1 = interference	erence frequency
 Series mode interference (peak value of interference < rated value of input range), min. 	70 dB
Common mode voltage, max.	10 V
Common mode interference, min.	90 dB
Interrupts/diagnostics/status information	
Diagnostics function	Yes
Alarms	
Diagnostic alarm	Yes
Limit value alarm	No
Diagnoses	

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Monitoring the supply voltage	Yes
• Wire-break	No
Short-circuit	Yes; at 1 to 5 V
• Group error	Yes
Overflow/underflow	Yes; Module-wise
Diagnostics indication LED	
 Monitoring of the supply voltage (PWR-LED) 	Yes; green PWR LED
Channel status display	Yes; green LED
 for channel diagnostics 	No
for module diagnostics	Yes; green/red DIAG LED
Potential separation	
Potential separation channels	
 between the channels 	No
 between the channels and backplane bus 	Yes
 between the channels and the power supply of the electronics 	Yes
Permissible potential difference	
between the inputs (UCM)	10 Vpp
Isolation	
Isolation tested with	707 V DC (type test)
Ambient conditions	
Ambient temperature during operation	
 horizontal installation, min. 	-30 °C; < 0 °C as of FS04
 horizontal installation, max. 	60 °C
• vertical installation, min.	-30 °C; < 0 °C as of FS04
 vertical installation, max. 	50 °C
Altitude during operation relating to sea level	
Installation altitude above sea level, max.	5 000 m; restrictions for installation altitudes > 2 000 m, see ET 200SP system manual
Dimensions	
Width	15 mm
Height	73 mm
Depth	58 mm
Weights	
Weight, approx.	31 g

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