SIEMENS

Data sheet 6ES7134-6FF00-0AA1

SIMATIC ET 200SP, Analog input module, AI 8XU Basic, suitable for BU type A0, A1, Color code CC02, Module diagnostics, 16 bit

General information	
Product type designation	AI 8xU BA
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	CC02
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	No
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.	25 mA
Power loss	
Power loss, typ.	0.7 W
Address area	
Address space per module	
● Address space per module, max.	16 byte
Hardware configuration	
Automatic encoding	Yes
● Mechanical coding element	Yes
● Type of mechanical coding element	type B
Selection of BaseUnit for connection variants	
● 1-wire connection	BU type A0, A1

● 2-wire connection	BU type A0, A1
Analog inputs	
Number of analog inputs	8; Single-ended
● For voltage measurement	8
permissible input voltage for voltage input (destruction limit), max.	30 V
Cycle time (all channels), min.	1 ms; per channel
Input ranges (rated values), voltages	
● 0 to +10 V	Yes; 15 bit
— Input resistance (0 to 10 V)	100 kΩ
● -10 V to +10 V	Yes; 16 bit incl. sign
— Input resistance (-10 V to +10 V)	100 kΩ
Cable length	
● shielded, max.	200 m
Analog value generation for the inputs	
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	16.67 / 50 / 60 / 4 800 (16.67 / 50 / 60)
● Conversion time (per channel)	180 / 60 / 50 / 0.625 (67.5 / 22.5 / 18.75) ms
Smoothing of measured values	
● Number of smoothing levels	4
● parameterizable	Yes
● Step: None	Yes
● Step: low	Yes
● Step: Medium	Yes
● Step: High	Yes
Encoder	
Connection of signal encoders	
● for voltage measurement	Yes
● for current measurement as 4-wire transducer	No
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 frequency	
● Series mode interference (peak value of interference < rated value of input range), min.	70 dB; With conversion time 67.5 / 22.5 / 18.75 ms: 40 dB
Interrupts/diagnostics/status information	
Diagnostics function	Yes
Alarms	
● Diagnostic alarm	Yes
● Limit value alarm	No
Diagnoses	
● Monitoring the supply voltage	Yes
● Wire-break	No
● Short-circuit	No
● 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	No
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

last modified: 5/22/2024