MANUFACTURER DOCUMENT PACKAGE

Manufacturer's Manual

Reference package for procurement and maintenance review

SIEMENS

6ES7134-6GB00-0BA1

TWO-CHANNEL ANALOG CURRENT INPUT

Used with the applicable SIMATIC ET 200SP configuration.

REFERENCE PACKAGE

OFFICIAL DOCUMENT

Selected official manufacturer pages follow this cover.

Source: Siemens 6ES7134-6GB00-0BA1 technical data and applicable product instructions

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Data sheet 6ES7134-6GB00-0BA1



SIMATIC ET 200SP, Analog input module, AI 2xI 2-/4-wire Standard, Pack quantity: 1 unit, suitable for BU type A0, A1, Color code CC05, Module diagnostics, 16 bit

General information	
Product type designation	AI 2xI 2-/4-wire ST
HW functional status	from FS04
Firmware version	
● FW update possible	Yes
usable BaseUnits	BU type A0, A1
Color code for module-specific color identification plate	CC05
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	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.	45 mA; without sensor supply
Encoder supply	
24 V encoder supply	
● 24 V	Yes
● Short-circuit protection	Yes
● Output current, max.	50 mA; Total current for both channels (two-wire)
Additional 24 V encoder supply	
● 24 V	Yes
● Short-circuit protection	Yes; Module-wise
● Output current, max.	200 mA; Total current for both channels (four-wire)
Power loss	
Power loss, typ.	1.1 W

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Address area	
Address space per module	
● Address space per module, max.	4 byte; + 1 byte for QI information
Hardware configuration	
Automatic encoding	Yes
● Mechanical coding element	Yes
● Type of mechanical coding element	Type A
Selection of BaseUnit for connection variants	
● 1-wire connection	BU type A0, A1
● 2-wire connection	BU type A0, A1
● 4-wire connection	BU type A0, A1
Analog inputs	
Number of analog inputs	2
● For current measurement	2
permissible input current for current input (destruction limit), max.	50 mA
Cycle time (all channels), min.	500 µs
Input ranges (rated values), currents	
● 0 to 20 mA	Yes; 15 bit
— Input resistance (0 to 20 mA)	130 Ω; 90 ohms with two wires
● -20 mA to +20 mA	Yes; 16 bit incl. sign
— Input resistance (-20 mA to +20 mA)	130 Ω
● 4 mA to 20 mA	Yes; 15 bit
— Input resistance (4 mA to 20 mA)	130 Ω; 90 ohms with two wires
Cable length	
● shielded, max.	1 000 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, 500 µs without filter
Smoothing of measured values	
● Number of smoothing levels	4
● parameterizable	Yes
● Step: None	Yes; 1x conversion time
● Step: low	Yes; 4x conversion time
● Step: Medium	Yes; 8x conversion time
● Step: High	Yes; 16x conversion time
Encoder	
Connection of signal encoders	
● for current measurement as 2-wire transducer	Yes
— Burden of 2-wire transmitter, max.	650 Ω
● for current measurement as 4-wire transducer	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	
● Current, relative to input range, (+/-)	0.5 %
Basic error limit (operational limit at 25 °C)	
● Current, 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
● Common mode voltage, max.	10 V
● Common mode interference, min.	90 dB

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Interrupts/diagnostics/status information	
Diagnostics function	Yes
Alarms	
● Diagnostic alarm	Yes
● Limit value alarm	No
Diagnoses	
● Monitoring the supply voltage	Yes
● Wire-break	Yes; at 4 to 20 mA
● Short-circuit	Yes; Short-circuit of the encoder supply
● Group error	Yes
● Overflow/underflow	Yes
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 manual
Dimensions	
Width	15 mm
Height	73 mm
Depth	58 mm
Weights	
Weight, approx.	32 g

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