Data sheet

6ES7134-6GF00-0AA1

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SIMATIC ET 200SP, Analog input module, AI 8XI 2-/4-wire Basic, suitable for BU type A0, A1, Color code CC01, Module diagnostics, 16 bit

eneral information	
Product type designation	Al 8xl 2-/4-wire 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	CC01
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
iR - Configuration in RUN	
Reparameterization possible in RUN	No
Calibration possible in RUN	No
upply 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
put current	
Current consumption, max.	25 mA; without sensor supply
ncoder supply	
24 V encoder supply	
• 24 V	Yes
Short-circuit protection	Yes
Output current, max.	0.7 A; total current of all encoders/channels
ower loss	
Power loss, typ.	0.7 W; Without encoder supply voltage
ddress area	
Address space per module	
Address space per module, max.	16 byte
lardware 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 + potential distributor module
Analog inputs	
Number of analog inputs	8; Single-ended
For current measurement	8
permissible input current for current input (destruction limit), max.	50 mA
Cycle time (all channels), min.	1 ms; per channel
Input ranges (rated values), currents	
• 0 to 20 mA	Yes
— Input resistance (0 to 20 mA)	100 Ω; 15 bit
• -20 mA to +20 mA	Yes
— Input resistance (-20 mA to +20 mA)	100 Ω; 16 bit incl. sign
• 4 mA to 20 mA	Yes
— Input resistance (4 mA to 20 mA)	100 Ω; 15 bit
Cable length	
• shielded, max.	200 m
Analog value generation for the inputs	200 111
Integration and conversion time/resolution per channel	
·	16 bit
Resolution with overrange (bit including sign), max.	
 Integration time, parameterizable Interference voltage suppression for interference frequency ft in Hz 	Yes 16.67 / 50 / 60 / 4 800 (16.67 / 50 / 60)
frequency f1 in Hz	190 / 60 / 50 / 0 625 / 67 5 / 22 5 / 49 75) mg
Conversion time (per channel) Smoothing of measured values	180 / 60 / 50 / 0.625 (67.5 / 22.5 / 18.75) ms
•	4
Number of smoothing levels	
parameterizable	Yes
• Step: None	Yes
• Step: low	Yes
Step: Medium	Yes
Step: High	Yes
Encoder	
Connection of signal encoders	
 for voltage measurement 	No
 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 = inter	rference 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 	Yes; at 4 to 20 mA
 Short-circuit 	Yes; Sensor supply to M; module by module
Group error	Yes
Overflow/underflow	Yes; Module-wise
Diagnostics indication LED	
 Monitoring of the supply voltage (PWR-LED) 	Yes; green 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
vertical installation, max. Altitude during operation relating to sea level	50 °C
	50 °C 5 000 m; restrictions for installation altitudes > 2 000 m, see ET 200SP system manual
Altitude during operation relating to sea level	5 000 m; restrictions for installation altitudes > 2 000 m, see ET 200SP system
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
Altitude during operation relating to sea level Installation altitude above sea level, max. Dimensions	5 000 m; restrictions for installation altitudes > 2 000 m, see ET 200SP system manual
Altitude during operation relating to sea level Installation altitude above sea level, max. Dimensions Width	5 000 m; restrictions for installation altitudes > 2 000 m, see ET 200SP system manual 15 mm
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Altitude during operation relating to sea level • Installation altitude above sea level, max. Dimensions Width Height Depth	5 000 m; restrictions for installation altitudes > 2 000 m, see ET 200SP system manual 15 mm 73 mm

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