SIEMENS

Data sheet 6ES7134-8LD00-0AN0

SIMATIC ET 200BL, analog input module, AI 4xRTD, module diagnostics, 16 bit
packing unit: 1 unit, color code CC00

General information	
Product type designation	AI 4xRTD 2-/3-/4-wire
HW functional status	from FS01
Firmware version	V1.0.0
● FW update possible	Yes
Color code for module-specific color-coded label	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	STEP 7 V18 or higher; MicroWin V3.0 or higher; Configuration in ES via GSDML;
● PROFINET from GSD version/GSD revision	GSDML V2.45
Operating mode	
● Oversampling	No
● MSI	No
Supply voltage	
Rated value (DC)	24 V
permissible range, lower limit (DC)	20.4 V
permissible range, upper limit (DC)	28.8 V
Reverse polarity protection	Yes
external protection for power supply lines	Yes; 24 V DC/10 A miniature circuit breaker with type B or C tripping characteristic
Input current	
Current consumption (rated value)	16 mA
Current consumption, max.	20 mA
Current carrying capacity	
For P1 and P2 bus, max.	10 A
Power loss	
Power loss, typ.	0.32 W
Address area	
Address space per module	
● Address space per module, max.	8 byte
● Inputs	8 byte
Hardware configuration	
Automatic encoding	No
● Mechanical coding element	No
Formation of potential groups	

● support of potential groups	Yes
Analog inputs	
Number of analog inputs	4; Differential inputs
● For resistance/resistance thermometer measurement	4
Constant measurement current for resistance-type transmitter, typ.	0.25 mA
Cycle time (all channels), min.	Sum of the basic conversion times and additional processing times (depending on the parameterization of the active channels)
Technical unit for temperature measurement adjustable	Yes; Celsius / Fahrenheit
Input ranges (rated values), resistance thermometer	
● Cu 10	Yes; 16 bit incl. sign
— Input resistance (Cu 10)	1 MΩ
● Cu 50	Yes; 16 bit incl. sign
— Input resistance (Cu 50)	1 MΩ
● Cu 100	Yes; 16 bit incl. sign
— Input resistance (Cu 100)	1 MΩ
● Ni 100	Yes; 16 bit incl. sign
— Input resistance (Ni 100)	1 MΩ
● Ni 1000	Yes; 16 bit incl. sign
— Input resistance (Ni 1000)	1 MΩ
● Ni 120	Yes; 16 bit incl. sign
— Input resistance (Ni 120)	1 MΩ
● Pt 100	Yes; 16 bit incl. sign
— Input resistance (Pt 100)	1 MΩ
● Pt 1000	Yes; 16 bit incl. sign
— Input resistance (Pt 1000)	1 MΩ
● Pt 200	Yes; 16 bit incl. sign
— Input resistance (Pt 200)	1 MΩ
● Pt 500	Yes; 16 bit incl. sign
— Input resistance (Pt 500)	1 MΩ
Input ranges (rated values), resistors	
● 0 to 150 ohms	Yes; 15 bit
— Input resistance (0 to 150 ohms)	1 MΩ
● 0 to 300 ohms	Yes; 15 bit
— Input resistance (0 to 300 ohms)	1 MΩ
● 0 to 600 ohms	Yes; 15 bit
— Input resistance (0 to 600 ohms)	1 MΩ
Cable length	
● shielded, max.	200 m
Analog value generation for the inputs	
Measurement principle	integrating (Sigma-Delta)
Integration and conversion time/resolution per channel	
● Resolution with overrange (bit including sign), max.	16 bit
● Integration time, parameterizable	Yes
● Basic conversion time, including integration time (ms)	
— additional processing time for wire-break check	2 ms
— additional power line wire-break check	1 ms
● Interference voltage suppression for interference frequency f1 in Hz	16.6 / 50 / 60 Hz
● Conversion time (per channel)	180 / 60 / 50 ms
Smoothing of measured values	
● Number of smoothing levels	4; None; 4/8/16 times
● 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 resistance measurement with two-wire connection	Yes

● for resistance measurement with three-wire connection	Yes
● for resistance measurement with four-wire connection	Yes
Errors/accuracies	
Linearity error (relative to input range), (+/-)	0.1 %
Temperature error (relative to input range), (+/-)	0.0009 %/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	
● Resistance, relative to input range, (+/-)	0.1 %
Basic error limit (operational limit at 25 °C)	
● Resistance, relative to input range, (+/-)	0.05 %
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
Interrupts/diagnostics/status information	
Diagnostics function	Yes
Alarms	
● Diagnostic alarm	Yes
● Limit value alarm	No
Diagnoses	
● Monitoring the supply voltage	Yes
● Wire break	Yes; module-wise
● short-circuit	No
● Group error	No
● 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	
between backplane bus and supply voltage	Yes
Potential separation analog inputs	
● between the channels	No
● between the channels and backplane bus	Yes
● between the channels and the power supply of the electronics	Yes
Isolation	
Isolation tested with	500 V AC/707 V DC, type test
Standards, approvals, certificates	
Ecological footprint	
● environmental product declaration	Yes
Global warming potential	
— global warming potential, (total) [CO2 eq]	9.28 kg
— global warming potential, (during production) [CO2 eq]	3.16 kg
— global warming potential, (during operation) [CO2 eq]	6.21 kg
— global warming potential, (after end of life cycle) [CO2 eq]	-0.106 kg
Use in hazardous areas	
● EAC Ex	No
Ambient conditions	
Ambient temperature during operation	
● horizontal installation, min.	-30 °C
● horizontal installation, max.	60 °C
● vertical installation, min.	-30 °C
● 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 200BL system manual
Connection method	
Terminals	
● Conductor cross-section, min.	0.14 mm²; follow detailed information in System manual of ET 200BL
● Conductor cross-section, max.	2.5 mm²; follow detailed information in System manual of ET 200BL
● Number of process terminals to I/O module	16
● Number of terminals with connection to P1 and P2 bus	2
Dimensions	
Width	15 mm
Height	117 mm
Depth	74 mm
Weights	
Weight, approx.	81 g

Classifications

	Version	Classification
eClass	16	27-24-26-01
eClass	14	27-24-26-01
eClass	12	27-24-26-01
eClass	9.1	27-24-26-01
eClass	9	27-24-26-01
eClass	8	27-24-26-01
eClass	7.1	27-24-26-01
eClass	6	27-24-26-01
ETIM	10	EC001596
ETIM	9	EC001596
ETIM	8	EC001596
ETIM	7	EC001596

Approvals / Certificates

General Product Approval

China RoHS

General Product Approval	EMV	Environment

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