SIEMENS

Product data sheet 6ES7134-6JD00-0CA1

SIMATIC ET 200SP, ANALOG INPUT MODULE,
AI 4XRTD/TC HIGH FEATURE,
FITS TO BU-TYPE A0, A1,
COLOR CODE CC00, CHANNEL DIAGNOSIS,
16BIT, +/-0,1%, 2-/3-/4-WIRE

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General information	
Firmware version	V2.0
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
Engineering with	
STEP 7 TIA Portal configurable/integrated as of version	V12 SP1 / V13
STEP 7 configurable/integrated as of version	V5.5 SP3 / V5.5 SP4
PROFIBUS as of GSD version/GSD revision	GSD Revision 5
PROFINET as of GSD version/GSD revision	GSDML V2.3
CiR - Configuration in RUN	
Reparameterization possible in RUN	Yes
Calibration possible in RUN	Yes
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.	35 mA
Power loss	
Power loss, typ.	0.75 W
Address area	
Address space per module	
Address space per module, max.	8 byte ; + 1 byte for QI information
Analog inputs	
Number of analog inputs	4
permissible input voltage for voltage input (destruction limit), max.	30 V
Constant measurement current for resistance-type transmitter, typ.	2 mA
Cycle time (all channels), min.	Sum of the basic conversion times and additional processing times (depending on the parameterization of the active channels); for line compensation in case of a three-wire connection, an additional cycle is necessary
Technical unit for temperature measurement adjustable	Yes
Input ranges (rated values), voltages	
-1 V to +1 V	Yes ; 16 bit incl. sign
Input resistance (-1 V to +1 V)	1 MΩ
-250 mV to +250 mV	Yes ; 16 bit incl. sign
Input resistance (-250 mV to +250 mV)	1 MΩ
-50 mV to +50 mV	Yes ; 16 bit incl. sign
Input resistance (-50 mV to +50 mV)	1 MΩ
-80 mV to +80 mV	Yes ; 16 bit incl. sign
Input resistance (-80 mV to +80 mV)	1 MΩ
Input ranges (rated values), thermocouples	
Type B	Yes ; 16 bit incl. sign
Input resistance (Type B)	1 MΩ
Type C	Yes ; 16 bit incl. sign
Input resistance (Type C)	1 MΩ
Type E	Yes ; 16 bit incl. sign
Input resistance (Type E)	1 MΩ
Type J	Yes ; 16 bit incl. sign
Input resistance (type J)	1 MΩ
Type K	Yes ; 16 bit incl. sign
Input resistance (Type K)	1 MΩ
Type L	Yes ; 16 bit incl. sign
Input resistance (Type L)	1 MΩ
Type N	Yes ; 16 bit incl. sign

Input resistance (Type N)	1 MΩ
Type R	Yes ; 16 bit incl. sign
Input resistance (Type R)	1 MΩ
Type S	Yes ; 16 bit incl. sign
Input resistance (Type S)	1 MΩ
Type T	Yes ; 16 bit incl. sign
Input resistance (Type T)	1 MΩ
Type U	Yes ; 16 bit incl. sign
Input resistance (Type U)	1 MΩ
Type TXK/TXK(L) acc. GOST	Yes ; 16 bit incl. sign
Input resistance (Type TXK/TXK(L) acc. to GOST)	1 MΩ
Input ranges (rated values), resistance thermometers	
Cu 10	Yes ; 16 bit incl. sign
Input resistance (Cu 10)	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
LG-Ni 1000	Yes ; 16 bit incl. sign
Input resistance (LG-Ni 1000)	1 MΩ
Ni 120	Yes ; 16 bit incl. sign
Input resistance (Ni 120)	1 MΩ
Ni 200	Yes ; 16 bit incl. sign
Input resistance (Ni 200)	1 MΩ
Ni 500	Yes ; 16 bit incl. sign
Input resistance (Ni 500)	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 Ohm	Yes ; 15 bit
Input resistance (0 to 150 Ohm)	1 MΩ
0 to 300 Ohm	Yes ; 15 bit
Input resistance (0 to 300 Ohm)	1 MΩ

0 to 600 Ohm	Yes ; 15 bit
Input resistance (0 to 600 Ohm)	1 MΩ
0 to 3000 Ohm	Yes ; 15 bit
Input resistance (0 to 3000 Ohm)	1 MΩ
0 to 6000 Ohm	Yes ; 15 bit
Input resistance (0 to 6000 Ohm)	1 MΩ
PTC	Yes ; 15 bit
Input resistance (PTC)	1 MΩ
Thermocouple (TC)	
Technical unit for temperature measurement	°C/°F/K
Temperature compensation	
parameterizable	Yes
Reference channel of the module	Yes
internal comparison point	Yes ; with BaseUnit type A1
Reference channel of the group	Yes
Number of reference channel groups	4 ; Group 0 to 3
fixed reference temperature	Yes
Resistance thermometer (RTD)	
permissible input voltage for voltage input (destruction limit), max.	30 V
Technical unit for temperature measurement	°C/°F/K
Cable length	
Cable length, shielded, max.	200 m ; 50 m with thermocouples
Analog value generation	
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 monitoring	2 ms ; In the ranges resistance thermometers, resistors and thermocouples
additional power line wire-break monitoring	2 ms; for 3/4 wire transducer (resistance thermometer and resistor)
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	
parameterizable	Yes
Step: None	Yes
Step: low	Yes
Step: Medium	Yes

Step: High	Yes
Encoder	
Connection of signal encoders	
for voltage measurement	Yes
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), (+/-)	0.01 % ; +/- 0.1 % for resistance thermometers and resistance
Temperature error (relative to input range), (+/-)	0.0009 %/K ; +/- 0.005 %/K at thermocouple
Crosstalk between the inputs, min.	-50 dB
Repeat accuracy in steady state at 25 °C (relative to input area), (+/-)	0.05 %
Operational error limit in overall temperature range	
Voltage, relative to input area, (+/-)	0.1 %
Resistance, relative to input area, (+/-)	0.1 %
Basic error limit (operational limit at 25 °C)	
Voltage, relative to input area, (+/-)	0.05 %
Resistance, relative to input area, (+/-)	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
Common mode voltage, max.	10 V
Common mode interference, min.	90 dB
Interrupts/diagnostics/status information	
Alarms	
Diagnostic alarm	Yes
Limit value alarm	Yes ; two upper and two lower limit values in each case
Diagnostic messages	
Diagnostics	Yes
Monitoring the supply voltage	Yes
Wire-break	Yes ; channel by channel
Overflow/underflow	Yes ; channel by channel
Diagnostics indication LED	
Monitoring the supply voltage (PWR-LED)	Yes ; green PWR LED
Channel status display	Yes ; Green LED
for channel diagnostics	Yes ; Red LED
for module diagnostics	Yes ; green/red DIAG LED
Galvanic isolation	

Galvanic isolation channels	
between the channels	No
between the channels and the backplane bus	Yes
between the channels and the supply voltage of the electronics	Yes
Permissible potential difference	
between different circuits	75 V DC/60 V AC (base isolation)
between the inputs (UCM)	10 V DC
Isolation	
Isolation tested with	707 V DC (type test)
Dimensions	
Width	15 mm
Weights	
Weight, approx.	30 g
Status	Jul 14, 2014