SIEMENS

Data sheet 6ES7134-6TD00-0CA1

Figure similar

SIMATIC ET 200SP, analog HART input module, AI 4XI 2-wire HART High Feature suitable for BU type A0, A1, color code CC03, channel diagnostics, 16-bit, +/-0.3%,

General information	
Product type designation	AI 4xI 2-wire HART
Firmware version	V1.0
● FW update possible	Yes
usable BaseUnits	BU type A0, A1
Color code for module-specific color identification plate	CC03
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 SP4 and higher
● PCS 7 configurable/integrated from version	V8.1 SP1
● PROFIBUS from GSD version/GSD revision	GSD Revision 5
● PROFINET from GSD version/GSD revision	GSDML 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.	25 mA; without sensor supply
Encoder supply	
24 V encoder supply	
● 24 V	Yes
● Short-circuit protection	Yes
● Output current, max.	20 mA; max. 50 mA per channel for a duration < 10 s
Power loss	
Power loss, typ.	0.65 W; without sensor supply
Address area	

Address space per module	
● Address space per module, max.	8 byte; + 1 byte for QI information
● Address space per module with HART, max.	28 byte; + 1 byte for QI information
Hardware configuration	
Automatic encoding	Yes
● Mechanical coding element	Yes
● Type of mechanical coding element	Type A
Analog inputs	
Number of analog inputs	4; Differential inputs
● For current measurement	4
permissible input current for current input (destruction limit), max.	50 mA
Input ranges (rated values), currents	
● 0 to 20 mA	No
● -20 mA to +20 mA	No
● 4 mA to 20 mA	Yes; 15 bit + sign
— Input resistance (4 mA to 20 mA)	280 Ω; + approx. 0.35 V diode forward voltage
Cable length	
● shielded, max.	800 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; channel by channel
● Interference voltage suppression for interference frequency f1 in Hz	10 / 50 / 60 Hz
Smoothing of measured values	
● Number of smoothing levels	4; None; 4/8/16 times
● parameterizable	Yes
Encoder	
Connection of signal encoders	
● for voltage measurement	No
● for current measurement as 2-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.	60 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.	60 dB
Interrupts/diagnostics/status information	
Diagnostics function	Yes
Alarms	
● Diagnostic alarm	Yes
● Limit value alarm	Yes
Diagnoses	
● Monitoring the supply voltage	Yes
● Wire-break	Yes; channel by channel
● Short-circuit	Yes; Channel-by-channel, short-circuit of the encoder supply to ground or of an input to the encoder supply
● Group error	Yes
● Overflow/underflow	Yes; channel by channel
Diagnostics indication LED	
● Monitoring of 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
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
● 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 200SP system manual
Dimensions	
Width	15 mm
Height	73 mm
Depth	58 mm
Weights	
Weight, approx.	31 g

last modified: 12/18/2020