SIEMENS

Data sheet

6ES7134-6TD00-0CA1



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

Figure similar

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	50 mA
limit), max.	· · · · · ·
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	
	integrating (Sigma Dalta)
Measurement principle	integrating (Sigma-Delta)
Integration and conversion time/resolution per channel	40.1%
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	4. None. 4/0/4C times
Number of smoothing levels	4; None; 4/8/16 times
parameterizable	Yes
Encoder	
Connection of signal encoders	
	NI=
 for voltage measurement 	No
for voltage measurementfor current measurement as 2-wire transducer	Yes
for current measurement as 2-wire transducer	
for current measurement as 2-wire transducer Errors/accuracies	Yes
for current measurement as 2-wire transducer Errors/accuracies Linearity error (relative to input range), (+/-)	Yes 0.01 %
• for current measurement as 2-wire transducer Errors/accuracies Linearity error (relative to input range), (+/-) Temperature error (relative to input range), (+/-) Crosstalk between the inputs, min.	Ves 0.01 % 0.005 %/K
• for current measurement as 2-wire transducer Errors/accuracies Linearity error (relative to input range), (+/-) Temperature error (relative to input range), (+/-)	0.01 % 0.005 %/K 60 dB
• for current measurement as 2-wire transducer Errors/accuracies Linearity error (relative to input range), (+/-) Temperature error (relative to input range), (+/-) Crosstalk between the inputs, min. Repeat accuracy in steady state at 25 °C (relative to input	0.01 % 0.005 %/K 60 dB
● for current measurement as 2-wire transducer Errors/accuracies Linearity error (relative to input range), (+/-) Temperature error (relative to input range), (+/-) Crosstalk between the inputs, min. Repeat accuracy in steady state at 25 °C (relative to input range), (+/-)	0.01 % 0.005 %/K 60 dB
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 ◆ for current measurement as 2-wire transducer Errors/accuracies Linearity error (relative to input range), (+/-) Temperature error (relative to input range), (+/-) Crosstalk between the inputs, min. Repeat accuracy in steady state at 25 °C (relative to input range), (+/-) Operational error limit in overall temperature range ◆ Current, relative to input range, (+/-) Basic error limit (operational limit at 25 °C) ◆ Current, relative to input range, (+/-) Interference voltage suppression for f = n x (f1 +/- 1 %), f1 = ◆ Series mode interference (peak value of interference < rated value of input range), min. Interrupts/diagnostics/status information Diagnostics function 	0.01 % 0.005 %/K 60 dB 0.05 % 0.5 % 0.3 % interference frequency 60 dB
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	Yes 0.01 % 0.005 %/K 60 dB 0.05 % 0.3 % interference frequency 60 dB Yes Yes Yes Yes; channel by channel
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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

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last modified: