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Data sheet 6ES7134-7SD00-0AB0



Figure similar

SIMATIC DP, electronic module for ET200iSP, 4 AI, TC: for connection of thermocouples (voltage measurement), Ex ib (ia Ga) IIC T4 Gb, Ex ib [ia IIIC Da] IIC T4 Gb, Ex ib [ia] I Mb

General information	
Product type designation	4AI TC
Input current	
Current consumption, typ.	17 mA
from supply voltage L+, max.	30 mA
Power loss	
Power loss, typ.	0.4 W
Analog inputs	
Number of analog inputs	4
Cycle time (all channels) max.	320 ms; 66 ms basic conversion time x 4 channels with interference frequency suppression 60 Hz, 80 ms basic conversion time x 4 channels with interference frequency suppression 50 Hz
Technical unit for temperature measurement adjustable	Yes
Input ranges (rated values), voltages	
● -80 mV to +80 mV	Yes
— Input resistance (-80 mV to +80 mV)	1 000 kΩ
Input ranges (rated values), thermocouples	
● Type B	Yes
— Input resistance (Type B)	1 000 kΩ
● Type C	Yes
— Input resistance (Type C)	1 000 kΩ
● Type E	Yes
— Input resistance (Type E)	1 000 kΩ
● Type J	Yes
— Input resistance (type J)	1 000 kΩ
● Type K	Yes
— Input resistance (Type K)	1 000 kΩ
● Type L	Yes
— Input resistance (Type L)	1 000 kΩ
● Type N	Yes
— Input resistance (Type N)	1 000 kΩ
● Type R	Yes
— Input resistance (Type R)	1 000 kΩ
● Type S	Yes
— Input resistance (Type S)	1 000 kΩ
● Type T	Yes
— Input resistance (Type T)	1 000 kΩ
● Type U	Yes
— Input resistance (Type U)	1 000 kΩ
Thermocouple (TC)	

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Temperature compensation	
— internal temperature compensation	Yes; via supplied TC sensor module
— external temperature compensation with compensations socket	Yes; via temperature value, acquired by an analog module of the same ET 200iSP station
Characteristic linearization	
● parameterizable	Yes
— for thermocouples	Yes
Cable length	
● shielded, max.	50 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)	80 ms at 50 Hz; 66 ms at 60 Hz
— additional conversion time for wire-break monitoring	5 ms
● Interference voltage suppression for interference frequency f1 in Hz	50 / 60 Hz
Smoothing of measured values	
● parameterizable	Yes; in 4 stages
● Step: None	Yes; 1x cycle time
● Step: low	Yes; 4x cycle time
● Step: Medium	Yes; 32x cycle time
● Step: High	Yes; 64x cycle time
Errors/accuracies	
Linearity error (relative to input range), (+/-)	0.015 %
Temperature error (relative to input range), (+/-)	0.02 %/K
Crosstalk between the inputs, min.	-50 dB
Repeat accuracy in steady state at 25 °C (relative to input range), (+/-)	0.01 %
Operational error limit in overall temperature range	
● Voltage, relative to input range, (+/-)	0.15 %
Basic error limit (operational limit at 25 °C)	
● Voltage, relative to input range, (+/-)	0.1 %
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 interference, min.	90 dB
Interrupts/diagnostics/status information	
Alarms	
● Diagnostic alarm	Yes; Parameterizable
● Limit value alarm	Yes; Parameterizable
Diagnoses	
● Diagnostic information readable	Yes
Diagnostics indication LED	
● Group error SF (red)	Yes
Potential separation	
Potential separation analog inputs	
● between the channels	Yes; Functional
● between the channels and backplane bus	Yes
Standards, approvals, certificates	
CE mark	Yes
Highest safety class achievable in safety mode	
● Performance level according to ISO 13849-1	none
● SIL acc. to IEC 61508	No
Use in hazardous areas	
● ATEX marking	II2 G (1) GD Ex ib[ia] IIC T4 and I M2 Ex ib[ia] I
● ATEX certificate	04 ATEX 1246
Dimensions	
Width	30 mm
Height	129 mm
Depth	136.5 mm

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Weights	
Weight, approx.	230 g

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