SIEMENS

Data sheet 6ES7134-7SD00-0AB0

SIMATIC DP, ELECT. SUBMODULE FOR ET200ISP, 4 AI, TC, FOR CONNECTION OF THERMOELEMENS (VOLTAGE MEASUREMENT)

Figure similar

Input current	
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	
• Voltage	Yes
• Current	No
• Thermocouple	Yes
• Resistance thermometer	No

• Resistance	No
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)	
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; 1 x cycle time
• Step: low	Yes; 4 x cycle time
• Step: Medium	Yes; 32 x cycle time
• Step: High	Yes; 64 x 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
Diagnostic messages	
• Diagnostic information readable	Yes
Diagnostics indication LED	
• Group error SF (red)	Yes

Potential separation	
Potential separation analog inputs	
• between the channels	Yes
• 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	
• Type of protection acc. to EN 50020 (CENELEC)	II2 G (1) GD Ex ib[ia] IIC T4 and I M2 Ex ib[ia] I
• Type of protection acc. to KEMA	04 ATEX 1246

Dimensions	
Width	30 mm
Height	129 mm
Depth	136.5 mm

Weights	
Weight, approx.	230 g

last modified: 03/09/2017