SIEMENS

Product data sheet 6ES7134-4NB01-0AB0

SIMATIC DP,
ELECTRONIC MODULE F. ET200S,
2 AI TC HIGH FEATURE 15 MM WIDE,
15 BIT + SIGN WITH INTERNAL TEMERATURE COMPENSATION

Supply voltage	
Load voltage L+	
Rated value (DC)	24 V ; From power module
Reverse polarity protection	Yes
Input current	
from load voltage L+ (without load), max.	30 mA
from backplane bus 3.3 V DC, max.	10 mA
Power losses	
Power loss, typ.	0.6 W
Address area	
Address space per module	
Address space per module, max.	4 byte
Analog inputs	
Number of analog inputs	2
permissible input voltage for voltage input (destruction limit), max.	20 V ; +/-20 V, continuous

Cycle time (all channels) max.	Number of active channels per module x basic conversion time
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 MΩ
Input ranges (rated values), thermoelements	
Type B	Yes
Input resistance (Type B)	1 MΩ
Type C	Yes
Input resistance (Type C)	1 MΩ
Type E	Yes
Input resistance (Type E)	1 MΩ
Type J	Yes
Input resistance (type J)	1 MΩ
Type K	Yes
Input resistance (Type K)	1 MΩ
Type L	Yes
Input resistance (Type L)	1 MΩ
Type N	Yes
Input resistance (Type N)	1 MΩ
Type R	Yes
Input resistance (Type R)	1 MΩ
Type S	Yes
Input resistance (Type S)	1 MΩ
Type T	Yes
Input resistance (Type T)	1 MΩ

Thermocouple (TC)	
for thermocouples	Type B, C, E, J, K, L, N, R, S, T to IEC 584
Temperature compensation	
internal temperature compensation	Yes ; possible with TM-E15S24-AT, TM-E15C24-AT
external temperature compensation with compensations socket	Yes ; one external compensating box per channel
Characteristic linearization	
Parameterizable	Yes
Cable length	
Cable length, shielded, max.	50 m
Analog value creation	
Measurement principle	integrating
Integrations and conversion time/ resolution per channel	
Resolution with overrange (bit including sign), max.	16 bit
Integration time, ms	16.7 / 20 ms
Interference voltage suppression for interference frequency f1 in Hz	60 / 50 Hz
Conversion time (per channel)	66 ms ; 66 / 80 ms; additional conversion time for diagnostic wire break test
Smoothing of measured values	
Parameterizable	Yes ; In four stages by means of digital filtering
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 area)	+/- 0,01 %
Temperature error (relative to input area)	+/- 0,005 %/K
Crosstalk between the inputs, min.	-50 dB
Repeat accuracy in settled status at 25 °C (relative to input area)	+/- 0,05 %
Operational limit in overall temperature range	

Voltage, relative to input area	+/- 0,1 % ; +/-1.5 K for thermocouples, +/-7 K for thermocouples type C,+/-2.5 K with static thermal state (ambient temperature change < 0.3 K/min)
Basic error limit (operational limit at 25 °C)	
Voltage, relative to input area	+/- 0,05 % ; +/-1 K with thermocouples, +/-5 K with thermocouples type C, +/-1.5 K with static thermal state (ambient temperature change < 0.3 K/min)
Interference voltage suppression for f = n x (fl +/- 1%), fl = interference frequency	
Series mode interference (peak value of interference < rated value of input range), min.	70 dB
common mode voltage (USS < 2.5 V) , min.	90 dB
Interrupts/diagnostics/status information	
Diagnostic messages	
Wire break	Yes ; only thermocouples
Group error	Yes
Overflow/underflow	Yes
Diagnostics indication LED	
Group error SF (red)	Yes
Parameter	
Diagnosis: wire break	Disable / enable (wire break is detected only in thermocouples)
Measurement type/range	Deactivated/ +/- 80 mV/ TC-EL Type T (Cu-CuNi)/ TC-EL Type K (NiCr-Ni)/ TC-EL Type B (PtRh-PtRh)/ TC-EL Type c (Wer-Wer) TC-EL Type N (NiCrSi-NiSi)/ TC-EL Type E (NiCr-CuNi)/ TC-EL Type R (PtRh-Pt)/ TC-EL Type S (PtRh-Pt)/ TC-EL Type J (Fe-Cu-Ni)/ TC
Group diagnostics	Disable / enable
Overflow/underflow	Disable / enable
Comparison point	none / yes, internal
Unit	Celsius / Fahrenheit
Galvanic isolation	
Galvanic isolation analog inputs	
between the channels	No
between the channels and the backplane bus	Yes
between the channels and the load voltage L+	Yes
Permissible potential difference	

between inputs and MANA (UCM)	140 V DC/100 V AC
between MANA and M internally (UISO)	75 VDC / 60 VAC
Isolation	
Isolation checked with	500 V DC
Dimensions	
Width	15 mm
Height	81 mm
Depth	52 mm
Weight	
Weight, approx.	40 g
Status	Jul 17, 2012