SIEMENS

Data sheet 6ES7134-4JB51-0AB0

SIMATIC DP, Electronics module for ET 200S, 2/4 AI RTD Standard, 15 mm width, 15 bit+sign Pt100 STD; Pt100 KL; NI100 STD; NI100 KL; 150 ohm; 300 ohm; 600 ohm; Cycle time 110 ms/channel with SF LED (group fault)

General information	
Product function	
● Isochronous mode	No
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
output voltage / header	
supply voltage of the transmitters / header	
● product function / supply voltage for transmitters	Yes
● short-circuit proof	Yes
Power loss	
Power loss, typ.	0.6 W
Address area	
Address space per module	
● Address space per module, max.	8 byte
Analog inputs	
Number of analog inputs	4; 2 for 3 or 4-wire connection
permissible input voltage for voltage input (destruction limit), max.	9 V
Constant measurement current for resistance-type transmitter, typ.	1.67 mA
Cycle time (all channels) max.	Number of active channels per module x basic conversion time
Technical unit for temperature measurement adjustable	No
Input ranges (rated values), resistance thermometer	
● Ni 100	Yes; Standard/climate
— Input resistance (Ni 100)	2 000 kΩ
● Pt 100	Yes; Standard/climate
— Input resistance (Pt 100)	2 000 kΩ
Input ranges (rated values), resistors	
● 0 to 150 ohms	Yes
— Input resistance (0 to 150 ohms)	2 000 kΩ
● 0 to 300 ohms	Yes
— Input resistance (0 to 300 ohms)	2 000 kΩ
● 0 to 600 ohms	Yes
— Input resistance (0 to 600 ohms)	2 000 kΩ
Characteristic linearization	
● parameterizable	Yes; for Pt100, Ni100

— for resistance thermometer	Pt100 (standard, climatic range), Ni100 (standard, climatic range)
Cable length	
● shielded, max.	200 m
Analog value generation for the inputs	
Measurement principle	integrating
Integration and conversion time/resolution per channel	
● Resolution with overrange (bit including sign), max.	16 bit; 150 ohms: 14 bit; 300, 600 ohms: 15 bit, Pt100, Ni100: 16 bit
● Integration time, parameterizable	Yes
● Integration time (ms)	16,7 / 20 ms
● Interference voltage suppression for interference frequency f1 in Hz	50 / 60 Hz
● Conversion time (per channel)	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; 1x cycle time
● Step: low	Yes; 4x cycle time
● Step: Medium	Yes; 32x cycle time
● Step: High	Yes; 64x cycle time
Encoder	
Connection of signal encoders	
● for resistance measurement with two-wire connection	Yes
● for resistance measurement with three-wire connection	Yes
● for resistance measurement with four-wire connection	Yes
Errors/accuracies	
Operational error limit in overall temperature range	
● Resistance thermometer, relative to input range, (+/-)	0.6 %
Basic error limit (operational limit at 25 °C)	
● Resistance thermometer, relative to input range, (+/-)	0.4 %
Interrupts/diagnostics/status information	
Diagnoses	
● Wire-break	Yes
● Group error	Yes
● Overflow/underflow	Yes
Diagnostics indication LED	
● Group error SF (red)	Yes
Parameter	
Diagnostics wire break	Disable / enable
Group diagnostics	Disable / enable
Overflow/underflow	Disable / enable
Potential separation	
Potential separation analog inputs	
● between the channels	No
● between the channels and backplane bus	Yes
● Between the channels and load voltage L+	Yes
Isolation	
Isolation tested with	500 V DC
Dimensions	
Width	15 mm
Height	81 mm
Depth	52 mm
Weights	
Weight, approx.	40 g

last modified: 4/1/2022