MANUFACTURER DOCUMENT PACKAGE

Manufacturer's Manual

Reference package for procurement and maintenance review

SIEMENS

6ES7123-1GB00-0AB0

TWO-CHANNEL CURRENT INPUT SUBMODULE

Used with the applicable SIMATIC ET 200L-SC configuration.

REFERENCE PACKAGE

OFFICIAL DOCUMENT

Selected official manufacturer pages follow this cover.

Source: Siemens 6ES7123-1GB00-0AB0 official product data; applicable specification pages.

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Data sheet 6ES7123-1GB00-0AB0

*** SPARE PART*** SIMATIC SC,ELECTRONIC SUBMODULE 2 AI, 4..20MA, +/-20MA

Supply voltage	
Rated value (DC)	24 V
Reverse polarity protection	Yes
Input current	
from supply voltage L+, max.	30 mA
Power loss	
Power loss, typ.	0.6 W
Hardware configuration	
Rack	
• required terminal block	TB 16SC
Slots	
• required slots	1; from 8
Analog inputs	
Number of analog inputs	2
permissible input current for current input (destruction limit), max.	40 mA; Permanent
Input ranges	
• Current	Yes
Input ranges (rated values), currents	
• -20 mA to +20 mA	Yes
• Input resistance (-20 mA to +20 mA)	50 Ω
• 4 mA to 20 mA	Yes
• Input resistance (4 mA to 20 mA)	50 Ω
Thermocouple (TC)	
Temperature compensation	
— parameterizable	No
Characteristic linearization	
• parameterizable	No
Cable length	
• shielded, max.	200 m
Analog value generation for the inputs	
Measurement principle	integrating
Integration and conversion time/resolution per channel	
• Resolution (incl. overrange)	+/-20 mA: 13 bits, 4 to 20 mA: 12 bits

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• Resolution with overrange (bit including sign), max.	13 bit
• Integration time, parameterizable	Yes
• Basic conversion time (ms)	55 / 65 ms
• Integration time (ms)	50 / 60 ms
• Interference voltage suppression for interference frequency f1 in Hz	50 / 60 Hz
Smoothing of measured values	
• parameterizable	Yes; parameterizable in 4 stages by means of digital filtering
• Step: None	Yes; 1 x cycle time
• Step: low	Yes; 8 x cycle time
• Step: Medium	Yes; 64 x cycle time
• Step: High	Yes; 128 x cycle time
Encoder	
Connection of signal encoders	
• for voltage measurement as 2-wire transducer	Yes; 4-wire transformer with external transmitter feed
• for current measurement as 2-wire transducer	Yes; with external transmitter supply
• for current measurement as 4-wire transducer	Yes
Errors/accuracies	
Linearity error (relative to input range), (+/-)	0.05 %
Temperature error (relative to input range), (+/-)	0.01 %/K
Crosstalk between the inputs, min.	50 dB; At 50/60 Hz
Repeat accuracy in steady state at 25 °C (relative to input range), (+/-)	0.1 %
Operational error limit in overall temperature range	
• Current, relative to input range, (+/-)	1 %
Basic error limit (operational limit at 25 °C)	
• Current, relative to input range, (+/-)	0.8 %
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 (USS < 2.5 V) , min.	90 dB
Interrupts/diagnostics/status information	
Alarms	No
Diagnostic functions	No
Potential separation	
Potential separation analog inputs	
• between the channels	No
• between the channels and backplane bus	No; Optocoupler

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• between the channels and the power supply of the electronics	No
Permissible potential difference	
Between the inputs and MANA (UCM)	2 V DC / 2 Vpp AC
Isolation	
Isolation tested with	1500 V AC
Dimensions	
Width	10 mm
Height	64 mm
Depth	51 mm
Weights	
Weight, approx.	20 g

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