MANUFACTURER DOCUMENT PACKAGE

Manufacturer's Manual

Reference package for procurement and maintenance review

SIEMENS

6ES7134-4FB01-0AB0

TWO-CHANNEL HIGH-FEATURE ANALOG INPUT MODULE

Used with the applicable SIMATIC ET 200S configuration.

REFERENCE PACKAGE

OFFICIAL DOCUMENT

Selected official manufacturer pages follow this cover.

Source: Official manufacturer documentation applicable to 6ES7134-4FB01-0AB0

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Data sheet 6ES7134-4FB01-0AB0

SIMATIC DP, ELECTRONIC MODULE FOR ET 200S, 2 AI STANDARD 15 MM WIDE +/-10 V; 13 BIT + SIGN +/-5 V; 12 BIT+ SIGN, 1..5V; 12BIT, CYCLE TIME 65 MS/CHANNEL WITH LED SF (GROUP FAULT)



Figure similar

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 loss	
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.	35 V; 35 V continuous; 75 V for max. 1 ms (mark to space ratio 1:20)

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Cycle time (all channels) max.	Number of active channels per module x basic conversion time
Input ranges	
• Voltage	Yes
• Current	No
• Thermocouple	No
• Resistance thermometer	No
• Resistance	No
Input ranges (rated values), voltages	
• 1 V to 5 V	Yes
• -10 V to +10 V	Yes
• -5 V to +5 V	Yes
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.	14 bit; +/-10 V: 13 bits + sign, +/-5 V: 13 bits + sign; 1 to 5 V: 13 bits
• 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)	65 ms; 55 / 65 ms
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 range), (+/-)	0.01 %
Temperature error (relative to input range), (+/-)	0.01 %/K
Crosstalk between the inputs, min.	-50 dB
Repeat accuracy in steady state at 25 °C (relative to input range), (+/-)	0.05 %
Operational error limit in overall temperature range	
• Voltage, relative to input range, (+/-)	0.6 %
Basic error limit (operational limit at 25 °C)	
• Voltage, relative to input range, (+/-)	0.4 %
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

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• Common mode interference (USS < 2.5 V) , min.	90 dB
Isochronous mode	
Isochronous operation (application synchronized up to terminal)	No
Interrupts/diagnostics/status information	
Diagnostic messages	
• Wire-break	Yes; Measuring range 1 to 5 V only
• Group error	Yes
• Overflow/underflow	Yes
Diagnostics indication LED	
• Group error SF (red)	Yes
Parameter	
Remark	4 byte
Diagnostics wire break	Disable / enable (only in measuring range 1 to 5 V)
Measurement type/range	deactivated / +/-5 V / 1 to 5 V / +/-10 V
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
Permissible potential difference	
Between the inputs and MANA (UCM)	2 V AC PP
between MANA and M internally (UISO)	75 V DC/60 V AC
Isolation	
Isolation tested with	500 V DC
Dimensions	
Width	15 mm
Height	81 mm
Depth	52 mm
Weights	
Weight, approx.	40 g
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