SIEMENS

Data sheet 6ES7235-0KD22-0XA0



Spare part SIMATIC S7-200, analog I/O EM 235, only for S7-22X CPU, 4 AI, +/-10 V DC; 1 AO, +/-10 V DC 12 bit converter

Input current	
from external supply (24 V DC), max.	60 mA
from backplane bus 5 V DC, max.	30 mA
Power loss	
Power loss, typ.	2 W
Analog inputs	
Number of analog inputs	4; Difference
permissible input voltage for voltage input (destruction limit), max.	30 V
permissible input current for current input (destruction limit), max.	32 mA
Input ranges	
● Voltage	Yes
● Current	Yes
● Thermocouple	No
● Resistance thermometer	No
● Resistance	No
Input ranges (rated values), voltages	
● 0 to +50 mV	Yes
● 0 to +100 mV	Yes
● 0 to +500 mV	Yes
● 0 to +1 V	Yes
● 0 to +5 V	Yes
● 0 to +10 V	Yes
● -1 V to +1 V	Yes
● -10 V to +10 V	Yes
● -100 mV to +100 mV	Yes
● -2.5 V to +2.5 V	Yes
● -25 mV to +25 mV	Yes
● -250 mV to +250 mV	Yes
● -5 V to +5 V	Yes
● -50 mV to +50 mV	Yes
● -500 mV to +500 mV	Yes
Input ranges (rated values), currents	
● 0 to 20 mA	Yes
Thermocouple (TC)	
Temperature compensation	
— Parameterizable	No
Analog outputs	

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Number of analog outputs	1
Output ranges, voltage	
● -10 V to +10 V	Yes
Output ranges, current	
● 0 to 20 mA	Yes
Load impedance (in rated range of output)	
● with voltage outputs, min.	5 kΩ
● with current outputs, max.	0.5 kΩ
Analog value generation for the inputs	
Integration and conversion time/resolution per channel	
● Resolution with overrange (bit including sign), max.	12 bit
● Basic conversion time (ms)	< 0.25 ms
● Interference voltage suppression for interference frequency f1 in Hz	40 dB, DC to 60 Hz
Displayable conversion value range	
● bipolar signals	-32 000 to +32 000
● unipolar signals	0 to 32 000
Analog value generation for the outputs	
Integration and conversion time/resolution per channel	
● Resolution with overrange (bit including sign), max.	11 bit
Settling time	
● for voltage output	100 µs
● for current output	2 ms
Displayable conversion value range	
● bipolar signals	-32 000 to +32 000
● unipolar signals	0 to 32 000
Errors/accuracies	
Operational error limit in overall temperature range	
● Voltage, relative to output range, (+/-)	2 %
● Current, relative to output range, (+/-)	2 %
Basic error limit (operational limit at 25 °C)	
● Voltage, relative to output range, (+/-)	0.5 %
● Current, relative to output range, (+/-)	0.5 %
Interference voltage suppression for f = n x (f1 +/- 1 %), f1 = interference frequency	
● Common mode voltage, max.	12 V
Interrupts/diagnostics/status information	
Diagnostics indication LED	
● external fault EXTF (red)	Yes
Potential separation	
Potential separation analog inputs	
● Potential separation analog inputs	No
Potential separation analog outputs	
● Potential separation analog outputs	No
Connection method	
Plug-in I/O terminals	No
Dimensions	
Width	71.2 mm
Height	80 mm
Depth	62 mm
Weights	
Weight, approx.	186 g
Classifications	

	Version	Classification
eClass	16	27-24-22-01
eClass	14	27-24-22-01
eClass	12	27-24-22-01
eClass	9.1	27-24-22-01
eClass	9	27-24-22-01

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eClass	8	27-24-22-01
eClass	7.1	27-24-22-01
eClass	6	27-24-22-01
ETIM	10	EC001420
ETIM	9	EC001420
ETIM	8	EC001420
ETIM	7	EC001420
IDEA	4	3562
UNSPSC	15	32-15-17-05

Approvals / Certificates

General Product Approval



Miscellaneous



China RoHS

For use in hazardous locations



FM

Maritime application













Maritime application

CCS (China Classification Society)

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