SIEMENS

Data sheet 6ES7432-1HF00-0AB0

SIMATIC S7-400, analog output SM 432, isolated 8 AO; resolution 13 bit, U/I

Supply voltage	
Load voltage L+	
• Rated value (DC)	24 V
• Reverse polarity protection	Yes
Input current	
from supply and load voltage L+ (without load), max.	200 mA; at rated load: max. 400 mA
from backplane bus 5 V DC, max.	150 mA
Power loss	
Power loss, typ.	9 W
Analog outputs	
Number of analog outputs	8
Voltage output, short-circuit protection	Yes
Voltage output, short-circuit current, max.	30 mA
Current output, no-load voltage, max.	19 V
Output ranges, voltage	
• 0 to 10 V	Yes
• 1 V to 5 V	Yes

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• -10 V to +10 V	Yes
Output ranges, current	
• 0 to 20 mA	Yes
• -20 mA to +20 mA	Yes
• 4 mA to 20 mA	Yes
Load impedance (in rated range of output)	
• with voltage outputs, min.	1 kΩ
• with voltage outputs, capacitive load, max.	1 µF
• with current outputs, max.	500 Ω; 600 ohms if common-mode-voltage reduced to <1 V
Cable length	
• shielded, max.	200 m

Analog value generation for the outputs	
Integration and conversion time/resolution per channel	
• Resolution with overrange (bit including sign), max.	13 bit
• Conversion time (per channel)	420 µs; 420 µs in the ranges 1 to 5 V and 4 to 20 mA; 300 µs in all ranges
Settling time	
• for resistive load	0.1 ms
• for capacitive load	3.5 ms
• for inductive load	0.5 ms

Errors/accuracies	
Operational error limit in overall temperature range	
• Voltage, relative to output range, (+/-)	0.5 %; ±10 V, 0 to 10 V, 1 to 5 V
• Current, relative to output range, (+/-)	1 %; ±20 mA, 4 to 20 mV
Basic error limit (operational limit at 25 °C)	
• Voltage, relative to output range, (+/-)	0.5 %; ±10 V, 0 to 10 V, 1 to 5 V
• Current, relative to output range, (+/-)	0.5 %; ±20 mA, 0 to 20 mA

Potential separation	
Potential separation analog outputs	
• between the channels and backplane bus	Yes

Isolation	
Isolation tested with	2 120 V DC between bus and L+/M; 2 120 V DC between bus and analog section; 500 V DC between bus and local ground; 500 V DC between analog section and L+/M; 2 120 V DC between analog section and local ground; 2 120 V DC between L+/M and local ground

Dimensions	
Width	25 mm
Height	290 mm
Depth	210 mm

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Weights	
Weight, approx.	650 g

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