



SIMATIC S7, ANALOG INPUT/OUTPUT SM 334, NON-ISOLATED, 4 AI/2 AO, 1 X 20 PIN, REMOVE AND INSERT WITH BACKPLAIN BUS

Figure similar

Supply voltage	
Load voltage L+	
• Rated value (DC)	24 V
Input current	
from load voltage L+ (without load), max.	110 mA
from backplane bus 5 V DC, max.	55 mA
Power losses	
Power loss, typ.	3 W
Analog inputs	
Number of analog inputs	4
• For voltage measurement	4
permissible input voltage for voltage input (destruction limit), max.	20 V
permissible input current for current input (destruction limit), max.	40 mA
Cycle time (all channels) max.	5 ms
Input ranges	
• Voltage	Yes
• Current	Yes
• Resistance thermometer	No
• Resistance	No
Input ranges (rated values), voltages	
• 0 to +10 V	Yes
• Input resistance (0 to 10 V)	100 kΩ

Input ranges (rated values), currents	
• 0 to 20 mA	Yes
• Input resistance (0 to 20 mA)	50 $\Omega$

### Analog outputs

Number of analog outputs	2
Voltage output, short-circuit protection	Yes
Voltage output, short-circuit current, max.	11 mA
Current output, no-load voltage, max.	15 V

Output ranges, voltage	
• 0 to 10 V	Yes

Output ranges, current	
• 0 to 20 mA	Yes

Load impedance (in rated range of output)	
• with voltage outputs, min.	5 k $\Omega$
• with voltage outputs, capacitive load, max.	1 $\mu$ F
• with current outputs, max.	300 $\Omega$
• with current outputs, inductive load, max.	1 mH

Cable length	
• shielded, max.	200 m

### Analog value creation

Integration and conversion time/resolution per channel	
• Resolution with overrange (bit including sign), max.	8 bit

Settling time	
• for resistive load	0.3 ms
• for capacitive load	3 ms
• for inductive load	0.3 ms

### Encoder

Connection of signal encoders	
• for current measurement as 4-wire transducer	Yes

### Errors/accuracies

Operational limit in overall temperature range	
• Voltage, relative to input area, (+/-)	0.9 %
• Current, relative to input area, (+/-)	0.8 %
• Voltage, relative to output area, (+/-)	0.6 %
• Current, relative to output area, (+/-)	1 %

Basic error limit (operational limit at 25 °C)	
• Voltage, relative to input area, (+/-)	0.7 %
• Current, relative to input area, (+/-)	0.6 %
• Voltage, relative to output area, (+/-)	0.5 %
• Current, relative to output area, (+/-)	0.5 %

Interrupts/diagnostics/status information	
Alarms	
• Alarms	No
Diagnostic messages	
• Diagnostic functions	No
Galvanic isolation	
Galvanic isolation analog inputs	
• between the channels and the backplane bus	No
Galvanic isolation analog outputs	
• between the channels and the backplane bus	No
Isolation	
Isolation checked with	500 V DC
Connection method	
required front connector	20-pin
Dimensions	
Width	40 mm
Height	125 mm
Depth	120 mm
Weights	
Weight, approx.	285 g
<b>last modified:</b>	12.03.2015