



SIMATIC S7-300, Analog module SM 334, isolated, 4 AI/2 AO, 12 bit, 0-10 V f. Pt100 (climatic range -120-155 degrees) and 10 kOhm measuring range, 1x 20-pole

Figure similar

Supply voltage	
Load voltage L+	
<ul style="list-style-type: none"> Rated value (DC) 	24 V
<ul style="list-style-type: none"> Reverse polarity protection 	Yes
Input current	
from supply and load voltage L+ (without load), max.	80 mA
from backplane bus 5 V DC, max.	60 mA
Power loss	
Power loss, typ.	2 W
Analog inputs	
Number of analog inputs	4
<ul style="list-style-type: none"> For voltage measurement 	2
<ul style="list-style-type: none"> For resistance measurement 	4
permissible input voltage for voltage input (destruction limit), max.	20 V; continuous; 75 V for max. 1 s (mark to space ratio 1:20)
Constant measurement current for resistance-type transmitter, typ.	490 μ A; at PT100 (490 μ A), at 10 kOhm (105 μ A)
Cycle time (all channels) max.	85 ms
Input ranges	
<ul style="list-style-type: none"> Voltage 	Yes
<ul style="list-style-type: none"> Current 	No
<ul style="list-style-type: none"> Thermocouple 	No
<ul style="list-style-type: none"> Resistance thermometer 	Yes
<ul style="list-style-type: none"> Resistance 	Yes
Input ranges (rated values), voltages	
<ul style="list-style-type: none"> 0 to +10 V 	Yes
— Input resistance (0 to 10 V)	100 k Ω
Input ranges (rated values), resistance thermometer	
<ul style="list-style-type: none"> Pt 100 	Yes; only climatic range
Input ranges (rated values), resistors	
<ul style="list-style-type: none"> 0 to 10000 ohms 	Yes
Characteristic linearization	
<ul style="list-style-type: none"> parameterizable 	Yes
— for resistance thermometer	Pt100 (climate)
Cable length	
<ul style="list-style-type: none"> shielded, max. 	100 m
Analog outputs	
Number of analog outputs	2
Voltage output, short-circuit protection	Yes
Voltage output, short-circuit current, max.	30 mA

Output ranges, voltage	
<ul style="list-style-type: none"> 0 to 10 V 	Yes
Load impedance (in rated range of output)	
<ul style="list-style-type: none"> with voltage outputs, min. 	2.5 kΩ
<ul style="list-style-type: none"> with voltage outputs, capacitive load, max. 	1 μF
Cable length	
<ul style="list-style-type: none"> shielded, max. 	100 m
Analog value generation for the inputs	
Integration and conversion time/resolution per channel	
<ul style="list-style-type: none"> Resolution with overrange (bit including sign), max. 	12 bit
<ul style="list-style-type: none"> Integration time, parameterizable 	Yes
<ul style="list-style-type: none"> Integration time (ms) 	16,67 / 20 ms
<ul style="list-style-type: none"> Interference voltage suppression for interference frequency f1 in Hz 	50 / 60 Hz
Analog value generation for the outputs	
Integration and conversion time/resolution per channel	
<ul style="list-style-type: none"> Resolution with overrange (bit including sign), max. 	12 bit
<ul style="list-style-type: none"> Conversion time (per channel) 	500 μs
Settling time	
<ul style="list-style-type: none"> for resistive load 	0.8 ms
<ul style="list-style-type: none"> for capacitive load 	0.8 ms
Encoder	
Connection of signal encoders	
<ul style="list-style-type: none"> for voltage measurement 	Yes
<ul style="list-style-type: none"> for resistance measurement with two-wire connection 	Yes
<ul style="list-style-type: none"> for resistance measurement with three-wire connection 	Yes
<ul style="list-style-type: none"> for resistance measurement with four-wire connection 	Yes
Errors/accuracies	
Operational error limit in overall temperature range	
<ul style="list-style-type: none"> Voltage, relative to input range, (+/-) 	0.7 %; 0 to 10V
<ul style="list-style-type: none"> Resistance, relative to input range, (+/-) 	3.5 %; 10 kOhm
<ul style="list-style-type: none"> Resistance thermometer, relative to input range, (+/-) 	1 %
<ul style="list-style-type: none"> Voltage, relative to output range, (+/-) 	1 %
Basic error limit (operational limit at 25 °C)	
<ul style="list-style-type: none"> Voltage, relative to input range, (+/-) 	0.5 %; 0 to 10V
<ul style="list-style-type: none"> Resistance, relative to input range, (+/-) 	2.8 %; 10 kOhm
<ul style="list-style-type: none"> Resistance thermometer, relative to input range, (+/-) 	0.8 %
<ul style="list-style-type: none"> Voltage, relative to output range, (+/-) 	0.85 %
Interrupts/diagnostics/status information	
Alarms	No
Diagnostics function	No
Potential separation	
Potential separation analog inputs	
<ul style="list-style-type: none"> between the channels and backplane bus 	Yes
Potential separation analog outputs	
<ul style="list-style-type: none"> between the channels 	No
<ul style="list-style-type: none"> between the channels and backplane bus 	Yes
<ul style="list-style-type: none"> between the channels and the power supply of the electronics 	Yes
Isolation	
Isolation tested with	500 V DC
connection method	
required front connector	20-pin
Dimensions	
Width	40 mm
Height	125 mm
Depth	117 mm
Weights	
Weight, approx.	200 g
Classifications	

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

Approvals / Certificates

General Product Approval



[Confirmation](#)



[KC](#)

For use in hazardous locations



[Miscellaneous](#)

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