

SIMATIC S7-300, ANALOG MODULE SM 334, OPTICALLY ISOLATED, 4AE/2AA, 12 BIT, 0-10V F. PT100 (CLIMAT RANGE - 120 - 155 DEGR.) AND 10 KOHM MEASURING RANGE, 1 X 20 PIN



Figure similar

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.	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
• For voltage measurement	2
• 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)
Cycle time (all channels) max.	85 ms

Input ranges	
• Voltage	Yes
• Current	No
• Thermocouple	No
• Resistance thermometer	Yes
• Resistance	Yes
Input ranges (rated values), voltages	
• 0 to +10 V	Yes
• Input resistance (0 to 10 V)	100 k Ω
Input ranges (rated values), resistance thermometer	
• Pt 100	Yes; only climatic range
Input ranges (rated values), resistors	
• 0 to 10000 ohms	Yes
Analog outputs	
Number of analog outputs	2
Voltage output, short-circuit protection	Yes
Voltage output, short-circuit current, max.	30 mA
Output ranges, voltage	
• 0 to 10 V	Yes
Load impedance (in rated range of output)	
• with voltage outputs, min.	2.5 k Ω
• with voltage outputs, capacitive load, max.	1 μ F
Cable length	
• shielded, max.	100 m
Analog value generation	
Integration and conversion time/resolution per channel	
• Resolution with overrange (bit including sign), max.	12 bit
• Integration time (ms)	16,67 / 20 ms
Settling time	
• for resistive load	0.8 ms
• for capacitive load	0.8 ms
Encoder	
Connection of signal encoders	
• for resistance measurement with two-wire connection	Yes
• for resistance measurement with three-wire connection	Yes
• for resistance measurement with four-wire connection	Yes
Errors/accuracies	

Operational error limit in overall temperature range

- | | |
|--|-----------------|
| • Voltage, relative to input range, (+/-) | 0.7 %; 0 to 10V |
| • Resistance, relative to input range, (+/-) | 3.5 %; 10 kOhm |
| • Resistance thermometer, relative to input range, (+/-) | 1 % |
| • Voltage, relative to output range, (+/-) | 1 % |

Basic error limit (operational limit at 25 °C)

- | | |
|--|-----------------|
| • Voltage, relative to input range, (+/-) | 0.5 %; 0 to 10V |
| • Resistance, relative to input range, (+/-) | 2.8 %; 10 kOhm |
| • Resistance thermometer, relative to input range, (+/-) | 0.8 % |
| • Voltage, relative to output range, (+/-) | 0.85 % |

Interrupts/diagnostics/status information

Alarms	No
Diagnostic functions	No

Potential separation

Potential separation analog inputs

- | | |
|--|-----|
| • between the channels and backplane bus | Yes |
|--|-----|

Potential separation analog outputs

- | | |
|--|-----|
| • between the channels and backplane bus | 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
-----------------	-------

last modified: 12/07/2016