

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+	
• 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 kΩ
Input ranges (rated values), resistance thermometer	
• Pt 100	Yes; only climatic range
Input ranges (rated values), resistors	
• 0 to 10000 ohms	Yes
Characteristic linearization	
• parameterizable — for resistance thermometer	Yes Pt100 (climate)
Cable length	
• 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	
• 0 to 10 V	Yes
Load impedance (in rated range of output)	
• with voltage outputs, min.	2.5 kΩ
• with voltage outputs, capacitive load, max.	1 μF
Cable length	
• shielded, max.	100 m
Analog value generation for the inputs	
Integration and conversion time/resolution per channel	
• Resolution with overrange (bit including sign), max.	12 bit
• Integration time (ms)	16,67 / 20 ms
Analog value generation for the outputs	
Integration and conversion time/resolution per channel	
• Resolution with overrange (bit including sign), max.	12 bit
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 |
| Diagnostics function | 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:

12/14/2018