



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) |
| Constant measurement current for resistance-type transmitter, typ. | 490 µA; at PT100 (490 µA), at 10 kOhm (105 µA) |
| 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 | Yes |
| — for resistance thermometer | 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, parameterizable | Yes |
| • Integration time (ms) | 16,67 / 20 ms |
| • 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 | |
| • Resolution with overrange (bit including sign), max. | 12 bit |
| • Conversion time (per channel) | 500 μs |
| Settling time | |
| • for resistive load | 0.8 ms |
| • for capacitive load | 0.8 ms |
| Encoder | |
| Connection of signal encoders | |
| • for voltage measurement | Yes |
| • 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 | No |
| • between the channels and backplane bus | Yes |
| • 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 |

last modified: 1/17/2021 