



Figure similar

SIMATIC S7-300, Analog module SM 334, Non-isolated 4 AI/2 AO, 1x 20-pole, Removing and inserting possible with active backplane bus

| Supply voltage  |        |
|---|--------|
| Load voltage L+   |        |
| • Rated value (DC)  | 24 V   |
| Input current   |        |
| from supply and load voltage L+ (without load), max.                  | 110 mA |
| from backplane bus 5 V DC, max.                                       | 55 mA  |
| Power loss  |        |
| 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    |
| • Thermocouple  | No     |
| • 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 Ω   |
| Cable length  |        |
| • shielded, max.  | 200 m  |
| 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    |

|  |              |
|--|--------------|
| <b>Output ranges, current</b>                                  |              |
| • 0 to 20 mA   | Yes          |
| <b>Load impedance (in rated range of output)</b>               |              |
| • 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         |
| <b>Cable length</b>  |              |
| • shielded, max.   | 200 m        |
| <b>Analog value generation for the inputs</b>                  |              |
| <b>Integration and conversion time/resolution per channel</b>  |              |
| • Resolution with overrange (bit including sign), max.         | 8 bit        |
| • Integration time, parameterizable                            | No           |
| <b>Analog value generation for the outputs</b>                 |              |
| <b>Integration and conversion time/resolution per channel</b>  |              |
| • Resolution with overrange (bit including sign), max.         | 8 bit        |
| • Conversion time (per channel)                                | 500 $\mu$ s  |
| <b>Settling time</b>   |              |
| • for resistive load   | 0.3 ms       |
| • for capacitive load  | 3 ms         |
| • for inductive load   | 0.3 ms       |
| <b>Encoder</b>   |              |
| <b>Connection of signal encoders</b>                           |              |
| • for voltage measurement                                      | Yes          |
| • for current measurement as 2-wire transducer                 | No           |
| • for current measurement as 4-wire transducer                 | Yes          |
| <b>Errors/accuracies</b>                                       |              |
| <b>Operational error limit in overall temperature range</b>    |              |
| • Voltage, relative to input range, (+/-)                      | 0.9 %        |
| • Current, relative to input range, (+/-)                      | 0.8 %        |
| • Voltage, relative to output range, (+/-)                     | 0.6 %        |
| • Current, relative to output range, (+/-)                     | 1 %          |
| <b>Basic error limit (operational limit at 25 °C)</b>          |              |
| • Voltage, relative to input range, (+/-)                      | 0.7 %        |
| • Current, relative to input range, (+/-)                      | 0.6 %        |
| • Voltage, relative to output range, (+/-)                     | 0.5 %        |
| • Current, relative to output range, (+/-)                     | 0.5 %        |
| <b>Interrupts/diagnostics/status information</b>               |              |
| Alarms   | No           |
| Diagnostics function   | No           |
| <b>Potential separation</b>                                    |              |
| <b>Potential separation analog inputs</b>                      |              |
| • between the channels and backplane bus                       | No           |
| <b>Potential separation analog outputs</b>                     |              |
| • between the channels   | No           |
| • between the channels and backplane bus                       | No           |
| • between the channels and the power supply of the electronics | Yes          |
| <b>Isolation</b>   |              |
| Isolation tested with  | 500 V DC     |
| <b>Connection method</b>                                       |              |
| required front connector                                       | 20-pin       |
| <b>Dimensions</b>  |              |
| Width  | 40 mm        |
| Height   | 125 mm       |
| Depth  | 117 mm       |
| <b>Weights</b>   |              |

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Weight, approx.

285 g

**last modified:**

1/17/2021 