



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    |
| Output ranges, current                                                |        |
| • 0 to 20 mA                                                          | Yes    |
| Load impedance (in rated range of output)                             |        |

|                                                                |          |
|----------------------------------------------------------------|----------|
| • with voltage outputs, min.                                   | 5 kΩ     |
| • with voltage outputs, capacitive load, max.                  | 1 μF     |
| • with current outputs, max.                                   | 300 Ω    |
| • with current outputs, inductive load, max.                   | 1 mH     |
| <b>Cable length</b>                                            |          |
| • shielded, max.                                               | 200 m    |
| <b>Analog value generation for the inputs</b>                  |          |
| Integration and conversion time/resolution per channel         |          |
| • Resolution with overrange (bit including sign), max.         | 8 bit    |
| • Integration time, parameterizable                            | No       |
| <b>Analog value generation for the outputs</b>                 |          |
| Integration and conversion time/resolution per channel         |          |
| • Resolution with overrange (bit including sign), max.         | 8 bit    |
| • Conversion time (per channel)                                | 500 μs   |
| <b>Settling time</b>                                           |          |
| • for resistive load                                           | 0.3 ms   |
| • for capacitive load                                          | 3 ms     |
| • for inductive load                                           | 0.3 ms   |
| <b>Encoder</b>                                                 |          |
| Connection of signal encoders                                  |          |
| • for voltage measurement                                      | Yes      |
| • for current measurement as 2-wire transducer                 | No       |
| • for current measurement as 4-wire transducer                 | Yes      |
| <b>Errors/accuracies</b>                                       |          |
| Operational error limit in overall temperature range           |          |
| • 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 %      |
| Basic error limit (operational limit at 25 °C)                 |          |
| • 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>                                    |          |
| Potential separation analog inputs                             |          |
| • between the channels and backplane bus                       | No       |
| Potential separation analog outputs                            |          |
| • 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>                                                 |          |
| Weight, approx.                                                | 285 g    |

last modified: 3/12/2024 