



SIMATIC S7-300, Analog output SM 332, isolated, 2 AO, U/I; resolution 11/12 bits, 20-pole, Removing/inserting with active backplane bus possible

Supply voltage

Load voltage L+

- | | |
|-------------------------------|------|
| • Rated value (DC) | 24 V |
| • Reverse polarity protection | Yes |

Input current

- | | |
|---|--------|
| from load voltage L+ (without load), max. | 135 mA |
| from backplane bus 5 V DC, max. | 60 mA |

Power loss

- | | |
|------------------|-----|
| Power loss, typ. | 3 W |
|------------------|-----|

Analog outputs

- | | |
|---|-------|
| Number of analog outputs | 2 |
| Voltage output, short-circuit protection | Yes |
| Voltage output, short-circuit current, max. | 25 mA |
| Current output, no-load voltage, max. | 18 V |

Output ranges, voltage

- | | |
|------------------|-----|
| • 0 to 10 V | Yes |
| • 1 V to 5 V | Yes |
| • -10 V to +10 V | Yes |

Output ranges, current

- | | |
|--------------------|-----|
| • 0 to 20 mA | Yes |
| • -20 mA to +20 mA | Yes |
| • 4 mA to 20 mA | Yes |

Load impedance (in rated range of output)

- | | |
|---|-------|
| • with voltage outputs, min. | 1 kΩ |
| • with voltage outputs, capacitive load, max. | 1 μF |
| • with current outputs, max. | 500 Ω |
| • with current outputs, inductive load, max. | 10 mH |

Cable length

- | | |
|------------------|-------|
| • shielded, max. | 200 m |
|------------------|-------|

Analog value generation for the outputs


Integration and conversion time/resolution per channel

- | | |
|--|---|
| • Resolution with overrange (bit including sign), max. | 12 bit; ±10 V, ±20 mA, 4 mA to 20 mA, 1 V to 5 V: 11 bit + sign; 0 V to 10 V, 0 mA to 20 mA: 12 bit |
| • Conversion time (per channel) | 0.8 ms |

Settling time

- | | |
|-----------------------|---------------------------------------|
| • for resistive load | 0.2 ms |
| • for capacitive load | 3.3 ms |
| • for inductive load | 0.5 ms; 0.5 ms (1 mH); 3.3 ms (10 mH) |

Errors/accuracies

| | |
|--|---|
| Operational error limit in overall temperature range | |
| • Voltage, relative to output range, (+/-) | 0.5 % |
| • Current, relative to output range, (+/-) | 0.6 % |
| Basic error limit (operational limit at 25 °C) | |
| • Voltage, relative to output range, (+/-) | 0.4 % |
| • Current, relative to output range, (+/-) | 0.5 % |
| Interrupts/diagnostics/status information | |
| Diagnostics function | Yes; Parameterizable |
| Alarms | |
| • Diagnostic alarm | Yes; Parameterizable |
| Diagnoses | |
| • Diagnostic information readable | Yes |
| Diagnostics indication LED | |
| • Group error SF (red) | Yes |
| Potential separation | |
| Potential separation analog outputs | |
| • between the channels | No |
| • between the channels and backplane bus | Yes |
| • Between the channels and load voltage L+ | Yes |
| • between the channels and the power supply of the electronics | Yes |
| Isolation | |
| Isolation tested with | 500 V DC |
| connection method / header | |
| required front connector | 20-pin |
| Dimensions | |
| Width | 40 mm |
| Height | 125 mm |
| Depth | 117 mm |
| Weights | |
| Weight, approx. | 220 g |
| last modified: | 1/17/2021  |