



SIMATIC S7, Analog input SM 336, 6 AI; 15 bit; fail-safe analog inputs for SIMATIC Safety, with HART support, up to Category 4 (EN 954-1)/ SIL3 (IEC61508)/PLE (ISO13849), 1x 20-pole

| Supply voltage | |
|--|---|
| Rated value (DC) | 24 V |
| Reverse polarity protection | Yes |
| Load voltage L+ | |
| <ul style="list-style-type: none"> Rated value (DC) Reverse polarity protection | 24 V Yes |
| Input current | |
| From power supply L+, typ. | 150 mA |
| from backplane bus 5 V DC, max. | 90 mA |
| Power loss | |
| Power loss, typ. | 4.5 W |
| Analog inputs | |
| Number of analog inputs | 6 |
| permissible input current for current input (destruction limit), max. | 40 mA |
| Input ranges | |
| <ul style="list-style-type: none"> Voltage Current Thermocouple Resistance thermometer Resistance | No Yes No No No |
| Input ranges (rated values), currents | |
| <ul style="list-style-type: none"> 0 to 20 mA <ul style="list-style-type: none"> Input resistance (0 to 20 mA) 4 mA to 20 mA <ul style="list-style-type: none"> Input resistance (4 mA to 20 mA) | Yes 150 Ω; typ. 150 ohms max. 175 ohms Yes 150 Ω; typ. 150 ohms max. 175 ohms |
| Cable length | |
| <ul style="list-style-type: none"> shielded, max. | 1 000 m |
| Analog value generation for the inputs | |
| Integration and conversion time/resolution per channel | |
| <ul style="list-style-type: none"> Resolution with overrange (bit including sign), max. Integration time (ms) Interference voltage suppression for interference frequency f1 in Hz | 16 bit; 15 bit + sign 20 ms @ 50 Hz, 16.7 ms @ 60 Hz $f=n \times (f1 \pm 0.5 \%)$ |
| Encoder | |
| Connection of signal encoders | |
| <ul style="list-style-type: none"> for current measurement as 2-wire transducer for current measurement as 4-wire transducer | Yes Yes |
| Errors/accuracies | |
| Operational error limit in overall temperature range | |
| <ul style="list-style-type: none"> Current, relative to input range, (+/-) | 0.2 %; 40 μA |

| | |
|--|----------------|
| Basic error limit (operational limit at 25 °C) | |
| • Current, relative to input range, (+/-) | 0.1 % |
| Interrupts/diagnostics/status information | |
| Diagnostics function | Yes |
| Alarms | |
| • Diagnostic alarm | Yes |
| Diagnoses | |
| • Diagnostic information readable | Yes |
| Diagnostics indication LED | |
| • Fail-safe operation | Yes |
| • Group error SF (red) | Yes |
| • Encoder supply Vs (green) | No |
| Potential separation | |
| Potential separation analog inputs | |
| • between the channels | Yes |
| • between the channels and backplane bus | Yes |
| • between the channels and the power supply of the electronics | Yes |
| Isolation | |
| Isolation tested with | 370V for 1 min |
| Standards, approvals, certificates | |
| Highest safety class achievable in safety mode | |
| • acc. to EN 954 | 4 |
| • Performance level according to ISO 13849-1 | e |
| • SIL acc. to IEC 61508 | SIL 3 |
| connection method / header | |
| required front connector | 20-pin |
| Dimensions | |
| Width | 40 mm |
| Height | 125 mm |
| Depth | 120 mm |
| Weights | |
| Weight, approx. | 350 g |

last modified: 7/28/2021 