

*** SPARE PART*** SIMATIC S7, ANALOG INPUT SM336, 6 AI; 14 BIT; 40 PIN, FAILSAFE ANALOG INPUTS FOR SIMATIC S7F SYSTEMS WITH DIAGNOST. INTERRUPT



Figure similar

| Supply voltage | |
|---|--------|
| Rated value (DC) | 24 V |
| Reverse polarity protection | Yes |
| Input current | |
| From power supply L+, typ. | 160 mA |
| from backplane bus 5 V DC, max. | 90 mA |
| Power loss | |
| Power loss, typ. | 4.25 W |
| Analog inputs | |
| Number of analog inputs | 6 |
| • For voltage measurement | 4 |
| permissible input voltage for voltage input (destruction limit), max. | 30 V |
| permissible input current for current input (destruction limit), max. | 40 mA |
| Input ranges | |

| | |
|--|-------|
| • Voltage | Yes |
| • Current | Yes |
| Input ranges (rated values), voltages | |
| • 0 to +10 V | Yes |
| • Input resistance (0 to 10 V) | 59 kΩ |
| Input ranges (rated values), currents | |
| • 0 to 20 mA | Yes |
| • Input resistance (0 to 20 mA) | 107 Ω |
| • 4 mA to 20 mA | Yes |
| • Input resistance (4 mA to 20 mA) | 107 Ω |
| Cable length | |
| • shielded, max. | 200 m |

Analog value generation for the inputs

| | |
|--|---------------------------------------|
| Integration and conversion time/resolution per channel | |
| • Resolution with overrange (bit including sign), max. | 14 bit |
| • Integration time (ms) | 20 ms (at 50 Hz); 16.66 ms (at 60 Hz) |
| • Interference voltage suppression for interference frequency f1 in Hz | 38 dB |

Encoder

| | |
|--|-----|
| Connection of signal encoders | |
| • for current measurement as 2-wire transducer | Yes |
| • for current measurement as 4-wire transducer | Yes |

Errors/accuracies

| | |
|---|--------|
| Operational error limit in overall temperature range | |
| • Voltage, relative to input range, (+/-) | 0.48 % |
| • Current, relative to input range, (+/-) | 0.48 % |
| Basic error limit (operational limit at 25 °C) | |
| • Voltage, relative to input range, (+/-) | 0.4 % |
| • Current, relative to input range, (+/-) | 0.4 % |

Interrupts/diagnostics/status information

| | |
|-----------------------------------|----------------------|
| Diagnostic functions | Yes |
| Alarms | |
| • Diagnostic alarm | Yes; Parameterizable |
| Diagnostic messages | |
| • Diagnostic information readable | Yes |
| Diagnostics indication LED | |
| • Fail-safe operation | Yes |
| • Group error SF (red) | Yes |
| • Encoder supply Vs (green) | Yes |

Potential separation

Potential separation analog inputs

- | | |
|--|--|
| • between the channels | No |
| • between the channels and backplane bus | Yes |
| • between the channels and the power supply of the electronics | Yes; only if sensors are externally supplied |

Isolation

| | |
|-----------------------|-------------------|
| Isolation tested with | 500 V DC/350 V AC |
|-----------------------|-------------------|

Standards, approvals, certificates

Highest safety class achievable in safety mode

- | | |
|--|--------|
| • Requirement class according to DIN V 19250 | AK 6 |
| • acc. to EN 954 | Cat. 4 |
| • SIL acc. to IEC 61508 | SIL 3 |

Connection method

| | |
|--------------------------|--------|
| required front connector | 40-pin |
|--------------------------|--------|

Dimensions

| | |
|--------|--------|
| Width | 80 mm |
| Height | 125 mm |
| Depth | 120 mm |

Weights

| | |
|-----------------|-------|
| Weight, approx. | 480 g |
|-----------------|-------|

last modified: 03/24/2017