

SIMATIC S7, ANALOG OUTPUT SM 332, OPTICALLY ISOLATED, 4 AO, 0/4 UP TO 20 mA, 20 PIN, FOR SIGNALS FROM HAZARDOUS AREAS CAPABLE OF DIANOST., PTB-TESTED



| Supply voltage | |
|---|--------|
| Load voltage L+ | |
| • Rated value (DC) | 24 V |
| • Reverse polarity protection | Yes |
| Input current | |
| from load voltage L+ (without load), max. | 200 mA |
| from backplane bus 5 V DC, max. | 80 mA |
| Power loss | |
| Power loss, typ. | 4 W |
| Analog outputs | |
| Number of analog outputs | 4 |
| Voltage output, short-circuit protection | Yes |
| Voltage output, short-circuit current, max. | 70 mA |
| Current output, no-load voltage, max. | 14 V |
| Output ranges, current | |
| • 0 to 20 mA | Yes |
| • 4 mA to 20 mA | Yes |
| Connection of actuators | |

| | |
|---|--|
| • for current output two-wire connection | Yes |
| Load impedance (in rated range of output) | |
| • with current outputs, max. | 500 Ω |
| 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. | 15 bit |
| • Basic conversion time (ms) | 2.5 ms |
| Errors/accuracies | |
| Operational error limit in overall temperature range | |
| • Current, relative to output range, (+/-) | 0.55 % |
| Basic error limit (operational limit at 25 °C) | |
| • Current, relative to output range, (+/-) | 0.2 % |
| Interrupts/diagnostics/status information | |
| Diagnostic functions | Yes |
| Diagnostic messages | |
| • Diagnostic information readable | Yes |
| • Overrange | Yes |
| • Wire-break in actuator cable | Yes |
| Diagnostics indication LED | |
| • Group error SF (red) | Yes |
| • Channel fault indicator F (red) | Yes |
| Ex(i) characteristics | |
| Module for Ex(i) protection | Yes |
| Maximum values of output circuits (per channel) | |
| • Co (permissible external capacity), max. | 850 nF |
| • Io (short-circuit current), max. | 70 mA |
| • Lo (permissible external inductivity), max. | 6.6 mH |
| • Po (power of load), max. | 440 mW |
| • Uo (output no-load voltage), max. | 14 V |
| Potential separation | |
| Potential separation analog outputs | |
| • Potential separation analog outputs | Yes |
| Permissible potential difference | |
| between the outputs (UCM) | 60 V DC/30 V AC when used in the hazardous area; 400 V DC/250 V AC when used in NON-hazardous area |
| Between the outputs and MANA (UCM) | 60 V DC/30 V AC when used in the hazardous area; 400 V DC/250 V AC when used in NON-hazardous area |

Standards, approvals, certificates

Use in hazardous areas

- | | |
|---|--|
| • Type of protection acc. to EN 50020 (CENELEC) | [EEx ib] IIC |
| • Type of protection acc. to FM | Class I, Division 2, Group A, B, C, D T4 |
| • Test number PTB | Ex-96.D.2026X |

Ambient conditions

Ambient temperature during operation

- | | |
|--------|-------|
| • max. | 60 °C |
|--------|-------|

Connection method

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|--------------------------|--------|
| required front connector | 20-pin |
|--------------------------|--------|

Weights

| | |
|-----------------|-------|
| Weight, approx. | 280 g |
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| last modified: | 03/24/2017 |
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