



\*\*\*\*\* spare part \*\*\*\*\* SIMATIC S7, analog output SM 332, isolated, 4 AO; 0/4 to 20 mA, 20-pole, for signals from the hazardous area, diagnostics-capable, 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 |
| 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              |        |
| Diagnostics function                                   | Yes    |
| Diagnoses  |        |
| • Overage  | 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 for connecting terminals for gas group IIC |  |
| • Uo (no-load voltage), max.                              | 14 V                                     |
| • Io (short-circuit current), max.                        | 70 mA                                    |
| • Po (power output), max.                                 | 440 mW                                   |
| • Co (permissible external capacity), max.                | 850 nF                                   |
| • Lo (permissible external inductivity), max.             | 6.6 mH                                   |
| Potential separation                                      |  |
| Potential separation analog outputs                       |  |
| • between the channels                                    | Yes                                      |
| • between the channels and backplane bus                  | Yes                                      |
| • Between the channels and load voltage L+                | Yes                                      |
| Standards, approvals, certificates                        |  |
| Use in hazardous areas                                    |  |
| • ATEX marking  | [Ex ib] IIC                              |
| • FM marking  | 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   |  |
| required front connector                                  | 20-pin                                   |
| Dimensions  |  |
| Width   | 40 mm                                    |
| Height  | 125 mm                                   |
| Depth   | 120 mm                                   |
| Weights   |  |
| Weight, approx.   | 280 g                                    |
| Classifications   |  |

|        | Version | Classification |
|--------|---------|----------------|
| eClass | 14      | 27-24-22-01    |
| eClass | 12      | 27-24-22-01    |
| eClass | 9.1     | 27-24-22-01    |
| eClass | 9       | 27-24-22-01    |
| eClass | 8       | 27-24-22-01    |
| eClass | 7.1     | 27-24-22-01    |
| eClass | 6       | 27-24-22-01    |
| ETIM   | 10      | EC001420       |
| ETIM   | 9       | EC001420       |
| ETIM   | 8       | EC001420       |
| ETIM   | 7       | EC001420       |
| IDEA   | 4       | 3562           |
| UNSPSC | 15      | 32-15-17-05    |

| Approvals / Certificates |  |
|--------------------------|--|
| General Product Approval |  |



[Miscellaneous](#)

[Manufacturer Declaration](#)



[Metrological Approval](#)

|                          |                                |
|--------------------------|--------------------------------|
| General Product Approval | For use in hazardous locations |
|--------------------------|--------------------------------|



RCM

[China RoHS](#)

[Manufacturer Declaration](#)

[Miscellaneous](#)



IECEX



ATEX

For use in hazardous locations

Maritime application

[EM](#)



CCC

[CCC-Ex](#)



ATEX



UL



DNV

Maritime application

[NK / Nippon Kaiji Kyokai](#)



PRS

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