



Figure similar

spare part SIMATIC S7-300, analog output SM 332, isolated by channel, 4 AO, resolution 16 bit, 0-10 V, 1-5 V, +/-10 V, +/-20 mA, 0/4-20 mA, 20-pole, suitable for isochronous mode improved bus cycle times for the isochronous mode

| General information | |
|--|---------------------|
| Product function | |
| <ul style="list-style-type: none"> • Isochronous mode | Yes |
| Supply voltage | |
| Load voltage L+ | |
| <ul style="list-style-type: none"> • Rated value (DC) | 24 V |
| <ul style="list-style-type: none"> • Reverse polarity protection | Yes |
| Input current | |
| from load voltage L+ (without load), max. | 290 mA |
| from backplane bus 5 V DC, max. | 120 mA |
| Power loss | |
| Power loss, typ. | 3 W |
| Analog outputs | |
| Number of analog outputs | 4; Isochronous mode |
| Voltage output, short-circuit protection | Yes |
| Voltage output, short-circuit current, max. | 40 mA |
| Current output, no-load voltage, max. | 18 V |
| Output ranges, voltage | |
| <ul style="list-style-type: none"> • 0 to 10 V | Yes |
| <ul style="list-style-type: none"> • 1 V to 5 V | Yes |
| <ul style="list-style-type: none"> • -10 V to +10 V | Yes |
| Output ranges, current | |
| <ul style="list-style-type: none"> • 0 to 20 mA | Yes |
| <ul style="list-style-type: none"> • -20 mA to +20 mA | Yes |
| <ul style="list-style-type: none"> • 4 mA to 20 mA | Yes |
| Connection of actuators | |
| <ul style="list-style-type: none"> • for voltage output four-wire connection | Yes |
| <ul style="list-style-type: none"> • for current output two-wire connection | Yes |
| Load impedance (in rated range of output) | |
| <ul style="list-style-type: none"> • with voltage outputs, min. | 1 kΩ |
| <ul style="list-style-type: none"> • with voltage outputs, capacitive load, max. | 1 μF |
| <ul style="list-style-type: none"> • with current outputs, max. | 500 Ω |
| <ul style="list-style-type: none"> • with current outputs, inductive load, max. | 1 mH |
| Cable length | |
| <ul style="list-style-type: none"> • shielded, max. | 200 m |
| Analog value generation for the outputs | |
| Integration and conversion time/resolution per channel | |
| <ul style="list-style-type: none"> • Resolution with overrange (bit including sign), max. | 16 bit |

| | | |
|--|------------------------------------|-----------------------|
| • Conversion time (per channel) | 200 µs; in isochronous mode 640 µs | |
| Settling time | | |
| • for resistive load | 0.2 ms | |
| • for capacitive load | 3.3 ms | |
| • for inductive load | 0.5 ms | |
| Errors/accuracies | | |
| Operational error limit in overall temperature range | | |
| • Voltage, relative to output range, (+/-) | 0.12 % | |
| • Current, relative to output range, (+/-) | 0.18 % | |
| Basic error limit (operational limit at 25 °C) | | |
| • Voltage, relative to output range, (+/-) | 0.02 % | |
| • Current, relative to output range, (+/-) | 0.02 % | |
| Interrupts/diagnostics/status information | | |
| Diagnostics function | Yes; Parameterizable | |
| Substitute values connectable | 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 | Yes | |
| • between the channels and backplane bus | Yes | |
| • between the channels and the power supply of the electronics | Yes | |
| Isolation | | |
| Isolation tested with | 1 500 V DC | |
| Connection method | | |
| required front connector | 20-pin | |
| Dimensions | | |
| Width | 40 mm | |
| Height | 125 mm | |
| Depth | 117 mm | |
| Weights | | |
| Weight, approx. | 220 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

EMV



[China RoHS](#)

[Manufacturer Declaration](#)



EMV

For use in hazardous locations



[FM](#)



[Miscellaneous](#)

For use in hazardous locations

Maritime application

[CCC-Ex](#)



[NK / Nippon Kaiji Kyokai](#)

Maritime application



[CCS \(China Classification Society\)](#)

last modified:

4/7/2025