



SIMATIC S7-300, Analog output SM 332, isolated, 8 AO, U/I; diagnostics; resolution 11/12 bits, 40-pole, removing and inserting possible with active backplane bus

Figure similar

| Supply voltage   |   |
|--|---|
| Load voltage L+  |   |
| <ul style="list-style-type: none"> <li>Rated value (DC)</li> </ul>                                     | 24 V  |
| <ul style="list-style-type: none"> <li>Reverse polarity protection</li> </ul>                          | Yes   |
| Input current  |   |
| from load voltage L+ (without load), max.  | 340 mA  |
| from backplane bus 5 V DC, max.  | 100 mA  |
| Power loss   |   |
| Power loss, typ.   | 6 W   |
| Analog outputs   |   |
| Number of analog outputs   | 8   |
| Voltage output, short-circuit protection   | Yes   |
| Voltage output, short-circuit current, max.  | 25 mA   |
| Current output, no-load voltage, max.  | 18 V  |
| Output ranges, voltage   |   |
| <ul style="list-style-type: none"> <li>0 to 10 V</li> </ul>  | Yes   |
| <ul style="list-style-type: none"> <li>1 V to 5 V</li> </ul>   | Yes   |
| <ul style="list-style-type: none"> <li>-10 V to +10 V</li> </ul>                                       | Yes   |
| Output ranges, current   |   |
| <ul style="list-style-type: none"> <li>0 to 20 mA</li> </ul>   | Yes   |
| <ul style="list-style-type: none"> <li>-20 mA to +20 mA</li> </ul>                                     | Yes   |
| <ul style="list-style-type: none"> <li>4 mA to 20 mA</li> </ul>  | Yes   |
| Load impedance (in rated range of output)  |   |
| <ul style="list-style-type: none"> <li>with voltage outputs, min.</li> </ul>                           | 1 kΩ  |
| <ul style="list-style-type: none"> <li>with voltage outputs, capacitive load, max.</li> </ul>          | 1 μF  |
| <ul style="list-style-type: none"> <li>with current outputs, max.</li> </ul>                           | 500 Ω   |
| <ul style="list-style-type: none"> <li>with current outputs, inductive load, max.</li> </ul>           | 10 mH   |
| Cable length   |   |
| <ul style="list-style-type: none"> <li>shielded, max.</li> </ul>                                       | 200 m   |
| Analog value generation for the outputs  |   |
| Integration and conversion time/resolution per channel   |   |
| <ul style="list-style-type: none"> <li>Resolution with overrange (bit including sign), max.</li> </ul> | 12 bit; ±10 V, ±20 mA, 4 mA to 20 mA, 1 V to 5 V: 11 bit + sign; 0 V to 10 V, 0 mA to 20 mA: 12 bit |
| <ul style="list-style-type: none"> <li>Conversion time (per channel)</li> </ul>                        | 0.8 ms  |
| Settling time  |   |
| <ul style="list-style-type: none"> <li>for resistive load</li> </ul>                                   | 0.2 ms  |
| <ul style="list-style-type: none"> <li>for capacitive load</li> </ul>                                  | 3.3 ms  |
| <ul style="list-style-type: none"> <li>for inductive load</li> </ul>                                   | 0.5 ms; 0.5 ms (1 mH); 3.3 ms (10 mH)   |
| Errors/accuracies  |   |

|  |                      |
|--|----------------------|
| <b>Operational error limit in overall temperature range</b>    |                      |
| • Voltage, relative to output range, (+/-)                     | 0.5 %                |
| • Current, relative to output range, (+/-)                     | 0.6 %                |
| <b>Basic error limit (operational limit at 25 °C)</b>          |                      |
| • Voltage, relative to output range, (+/-)                     | 0.4 %                |
| • Current, relative to output range, (+/-)                     | 0.5 %                |
| <b>Interrupts/diagnostics/status information</b>               |                      |
| Diagnostics function   | Yes; Parameterizable |
| <b>Alarms</b>  |                      |
| • Diagnostic alarm   | Yes; Parameterizable |
| <b>Diagnoses</b>   |                      |
| • Diagnostic information readable                              | Yes                  |
| <b>Diagnostics indication LED</b>                              |                      |
| • Group error SF (red)   | Yes                  |
| <b>Potential separation</b>                                    |                      |
| Potential separation analog outputs                            |                      |
| • between the channels   | No                   |
| • between the channels and backplane bus                       | Yes                  |
| • Between the channels and load voltage L+                     | Yes                  |
| • between the channels and the power supply of the electronics | Yes                  |
| <b>Isolation</b>   |                      |
| Isolation tested with  | 500 V DC             |
| <b>connection method</b>                                       |                      |
| required front connector                                       | 40-pin               |
| <b>Dimensions</b>  |                      |
| Width  | 40 mm                |
| Height   | 125 mm               |
| Depth  | 117 mm               |
| <b>Weights</b>   |                      |
| Weight, approx.  | 272 g                |

|        |  | 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   |  | 9       | EC001420       |
| ETIM   |  | 8       | EC001420       |
| ETIM   |  | 7       | EC001420       |
| IDEA   |  | 4       | 3562           |
| UNSPSC |  | 15      | 32-15-17-05    |

|                                 |     |
|---------------------------------|-----|
| <b>Approvals / Certificates</b> |     |
| General Product Approval        | EMV |

[Manufacturer Declaration](#)



[Miscellaneous](#)



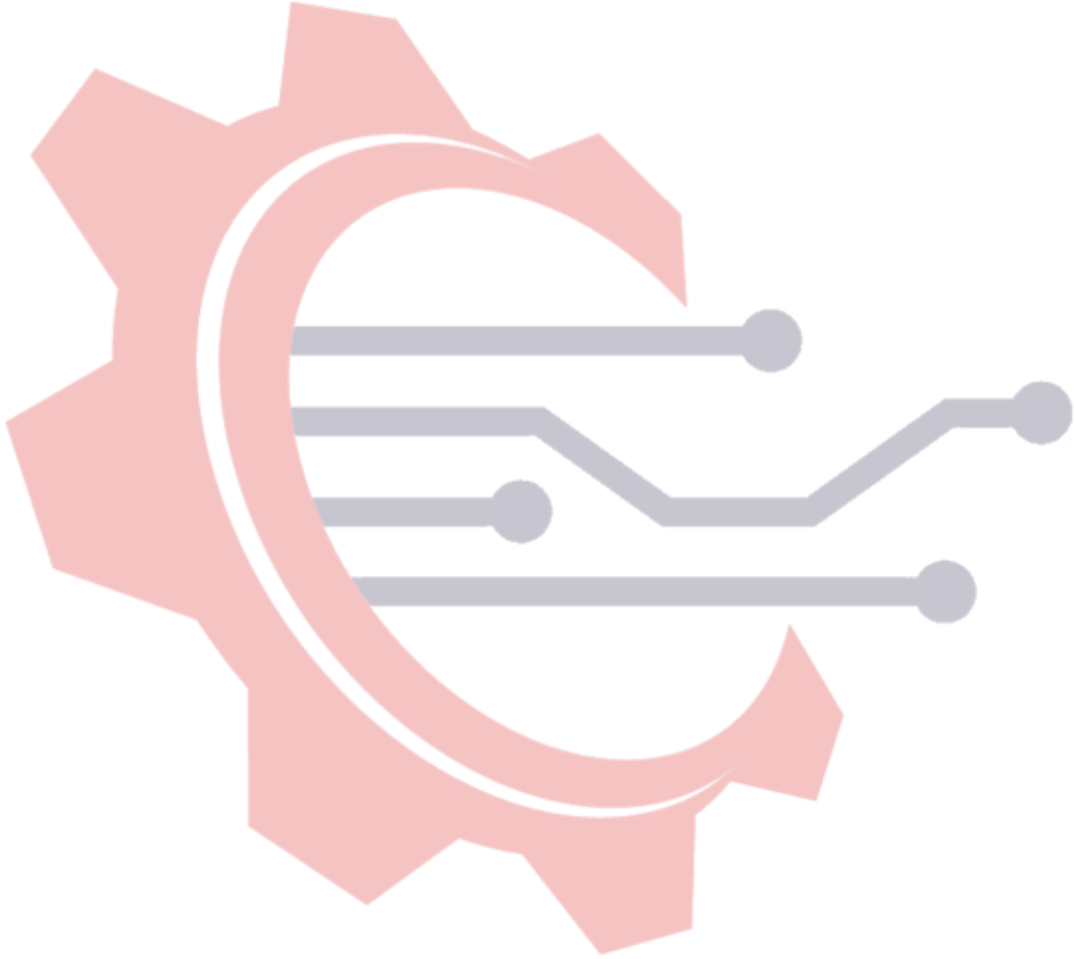
|                   |         |
|-------------------|---------|
| Functional Safety | Railway |
|-------------------|---------|



[Confirmation](#)

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