

SIMATIC S7-300, Analog output SM 332, isolated, 4 AO, U/I; diagnostics; resolution 11/12 bits, 20-pole, removing and inserting possible with active backplane bus



Figure similar

| Supply voltage                              |        |
|---|--------|
| Load voltage L+                             |        |
| • Rated value (DC)                          | 24 V   |
| • Reverse polarity protection               | Yes    |
| Input current                               |        |
| from load voltage L+ (without load), max.   | 240 mA |
| from backplane bus 5 V DC, max.             | 60 mA  |
| Power loss                                  |        |
| Power loss, typ.                            | 3 W    |
| Analog outputs                              |        |
| Number of analog outputs                    | 4      |
| 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                      |        |
| • 0 to 10 V                                 | Yes    |

|   |   |
|---|---|
| • 1 V to 5 V  | Yes   |
| • -10 V to +10 V  | Yes   |
| <b>Output ranges, current</b>                                 |   |
| • 0 to 20 mA  | Yes   |
| • -20 mA to +20 mA  | Yes   |
| • 4 mA to 20 mA   | Yes   |
| <b>Load impedance (in rated range of output)</b>              |   |
| • with voltage outputs, min.                                  | 1 k $\Omega$  |
| • with voltage outputs, capacitive load, max.                 | 1 $\mu$ F   |
| • with current outputs, max.                                  | 500 $\Omega$  |
| • with current outputs, inductive load, max.                  | 10 mH   |
| <b>Cable length</b>   |   |
| • shielded, max.  | 200 m   |
| <b>Analog value generation for the outputs</b>                |   |
| <b>Integration and conversion time/resolution per channel</b> |   |
| • Resolution with overrange (bit including sign), max.        | 12 bit; $\pm$ 10 V, $\pm$ 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 |
| • Conversion time (per channel)                               | 0.8 ms  |
| <b>Settling time</b>  |   |
| • for resistive load  | 0.2 ms  |
| • for capacitive load   | 3.3 ms  |
| • for inductive load  | 0.5 ms; 0.5 ms (1 mH); 3.3 ms (10 mH)   |
| <b>Errors/accuracies</b>                                      |   |
| <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>Diagnostic messages</b>                                    |   |
| • Diagnostic information readable                             | Yes   |
| <b>Diagnostics indication LED</b>                             |   |
| • Group error SF (red)  | Yes   |
| <b>Potential separation</b>                                   |   |
| <b>Potential separation analog outputs</b>                    |   |
| • between the channels  | No  |

- between the channels and backplane bus
- Between the channels and load voltage L+
- between the channels and the power supply of the electronics

Yes  
Yes  
Yes

#### Isolation

Isolation tested with 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

**last modified:** 06/09/2020