

S-DIAS Analog Mixed Module AM 222



with 2 current inputs
2 current outputs

The S-DIAS AM 222 analog mixed module has two current inputs, 0-20 mA and 4-20 mA respectively, each with a 16-bit resolution as well as two current outputs, 0-20 mA and 4-20 mA respectively, with a 12-bit resolution. The voltage supply for the current inputs and outputs are monitored for under voltage.

Analog Input Specifications

| | | |
|---|--|--------------|
| Number of channels | 2 | |
| Measurement range | 0-20 mA | 4-20 mA |
| Measurement value | 0-20,000 | 4,000-20,000 |
| Input type | differential input | |
| Current resolution | 16-bit (ca. 0.3 μ A/LSB) | |
| Conversion time for all channels | 1 ms | |
| Common mode range | ± 10 V | |
| Load | typically 50 Ω | |
| Input filter hardware | typically 1 kHz, low pass 3rd order system | |
| Input filter | configurable | |
| Cable break monitor | no | yes |
| Short circuit monitor | no | yes |
| Basic precision incl. calibration error, linearity and noise at 25 °C | ± 0.30 % of maximum measurement value | |
| Temperature drift 0-60 °C | ± 0.20 % of maximum measurement value | |
| Total measurement precision (0-60 °C) | ± 0.50 % of maximum measurement value | |

Analog Output Specifications

| | | |
|---|---|--------------|
| Number of channels | 2 | |
| Output range | 0-20 mA | 4-20 mA |
| Output value | 0-20,000 | 4,000-20,000 |
| Current resolution | 12-bit (ca. 5 μ A/LSB) | |
| Refresh time for all channels | 1 ms | |
| Settling time | 50 μ s + load * capacitive load (63 % of the end value) 100 μ s + 2*load * capacitive load (86 % of the end value) 250 μ s + 5*load * capacitive load (99 % of the end value) | |
| Load | maximum 500 Ω | |
| Allowable output capacity | 1 μ F at 50 Ω load | |
| Cable break monitor | no | |
| Basic precision incl. calibration error, linearity and noise at 25 °C | ± 0.30 % of maximum output value | |
| Temperature drift 0-60 °C | ± 0.20 % of maximum output value | |
| Total output precision (0-60 °C) | ± 0.50 % of maximum output value | |

Analog In and Output Voltage Supply Specifications

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|---------------------|---------------|
| External supply | +18-30 V |
| Current consumption | maximum 70 mA |

Voltage Monitor External +24 V Supply

| | |
|----------------------|--|
| +24 V supply voltage | Supply voltage > 18 V (DC OK-LED lights green) |
|----------------------|--|

Electrical Requirements

| | | |
|---|--|--|
| External +24 V supply | +18-30 V DC | |
| Current consumption of the +24 V supply without load on the analog outputs | typically 27 mA at +18 V typically 24 mA at +24 V typically 23 mA at +30 V | maximum 31 mA at +18 V maximum 28 mA at +24 V maximum 27 mA at +30 V |
| Current consumption of the +24 V supply with maximum load on the analog outputs | typically 63 mA at +18 V typically 51 mA at +24 V typically 45 mA at +30 V | maximum 70 mA at +18 V maximum 57 mA at +24 V maximum 50 mA at +30 V |
| Voltage supply from S-DIAS bus | +5 V | |
| Current consumption on the S-DIAS bus (+5 V supply) | typically 55 mA | maximum 62 mA |

Article Number and Miscellaneous

| | |
|----------------|----------------------------------|
| Article number | 20-017-222 |
| Dimensions | 12.5 x 104.2 x 72 mm (W x H x D) |
| Standard | UL 508 (E247993) |
| Approvals | UL, cUL, CE |

Environmental Conditions

| | | |
|---------------------------|---|---|
| Storage temperature | -20 ... +85 °C | |
| Environmental temperature | 0 ... +60 °C | |
| Humidity | 0-95 %, non-condensing | |
| Operating conditions | pollution degree 2 altitude up to 2000 m | |
| EMC resistance | in accordance with EN 61000-6-2 (industrial area) | |
| EMC noise generation | in accordance with EN 61000-6-4 (industrial area) | |
| Vibration resistance | EN 60068-2-6 | 3,5 mm from 5-8,4 Hz 1 g from 8,4-150 Hz |
| Shock resistance | EN 60068-2-27 | 15 g |
| Protection type | EN 60529 | IP20 |

Notes

