



AIO288/x Analog Input/Output Modules

The analog input/output module AIO288/x offers 8 analog input channels as well as 8 analog output channels.

- 8 analog inputs
- 8 analog outputs
- Connection possibility single-ended or differential
- Power supply for up to 4 potentiometers
- Temperature inputs for up to 4 Pt100/Pt1000 sensors
- 2-wire or 4-wire inputs for Pt100/Pt1000 sensors
- Wire break detection for the inputs (for voltage and temperature)
- Short circuit proof outputs
- Overload detection for potentiometer power supplies
- Monitoring of the external supply voltage

| Item | Item-No. |
|-----------|-------------|
| AIO288 | 00014470-00 |
| AIO288 CC | 00016157-00 |
| AIO288/1 | 00014470-10 |

| AIO288/x | |
|--|--|
| Voltage inputs | |
| Quantity | Max. 8 |
| Input voltage | ± 1 V or ± 10 V |
| Input impedance | > 100 k Ω |
| Digital resolution | 14 bit |
| Allowed common mode voltage | Max. ± 1 V |
| Basic accuracy at 25 °C | Max. ± 0.05 % of input voltage range |
| Input cutoff frequency | 1.5 kHz (3 dB) |
| Cross-talk attenuation | > 60 dB |
| Sample time | 200 μ s |
| Voltage outputs | |
| Quantity | Max. 8 |
| Output voltage | ± 10 V |
| Digital resolution | 14 bit |
| Allowed common mode voltage | Max. ± 1 V |
| Basic accuracy at 25 °C | Max. ± 0.025 % of measuring range |
| Settling time of 1 % of the output current range | Max. 400 μ s |
| Cross-talk attenuation | > 60 dB |
| Refresh cycle time | 200 μ s |
| Current inputs | |
| Quantity | Max. 8 |
| Input current | 0 to 20 mA |
| Input impedance | 243 Ω |
| Digital resolution | 14 bit |
| Max. input current | 35 mA (destruction limit) |
| Basic accuracy at 25 °C | Max. ± 0.1 % of measuring range (20 mA) |
| Input cutoff frequency | 1.5 kHz (3 dB) |
| Sample time | 200 μ s |
| Temperature inputs | |
| Temperature inputs | Pt100, Pt1000 selectable |
| Quantity | Max. 4 |
| Connection type | 2- or 4-wire, optional |
| Temperature range | -100 to +500 °C |
| Input impedance | > 100 k Ω |
| Basic accuracy at 25 °C | Max. ± 0.1 % of measuring range (600 kelvin) |
| Input cutoff frequency | 1.5 kHz (3 dB) |
| Value of the LSB | 0.1 K |
| Sample time | 200 μ s |
| Galvanic isolation from system | 500 V |

| AIO288/x | | |
|------------------------------------|--|------------------------------|
| Potentiometer power supply | | |
| Quantity | Max. 4 | |
| Voltage range | ±10 V | |
| Error at 25 °C | Max. ±100 mV | |
| Load | Max. 40 mA | |
| Power supply | | |
| Voltage range external | 18 to 34 VDC | |
| Galvanic isolation from the system | 500 V (only AIO288) | |
| Approvals / Certificates | | |
| General | CE, cULus, CCC | |
| Marine | DNV GL, LR, ABS, BV | |
| Ambient conditions | | |
| | Standard | ColdClimate (❄) |
| Operating temperature | -30 to +60 °C | |
| Rel. humidity operation | 5 to 95 % without condensation | 5 to 95 % with condensation |
| Storage temperature | -40 to +85 °C | |
| Rel. humidity storage | 5 to 95 % with condensation | |
| Pollution degree | 2 (without condensation; according to IEC 60664-1) | 2 (according to IEC 60664-1) |

| Order Codes | | |
|-----------------------------|-------------|--|
| Item | Item No. | Description |
| AIO288 | 00014470-00 | Analog input/output module; 8x In ±10V ±1V 20mA 4x Pt100/1000; 14bit; 0.1%; 200µs sample time; 8x Out ±10V; 4x Poti supply; isolated |
| AIO288 CC | 00016157-00 | Like AIO288; ColdClimate (❄) |
| AIO288/1 | 00014470-10 | Analog input/output module; 8x In ±10V ±1V 20mA 4x Pt100/1000; 14bit; 0.1%; 200µs sample time; 8x Out ±10V; 4x Poti supply; NOT isolated |
| Accessories | | |
| KS-AIO288 B+C ¹⁾ | 00012598-50 | Terminal set cage clamp small (4x KS 35/19; 1x KZ 51/03) with labeling strip and coding elements → not for new developments |
| KZ-AIO288 B+C | 00026125-00 | Terminal set Phoenix cage clamp (4x KZ 35/19; 1x KZ 51/03) with labeling strip and coding elements |
| SS-AIO288 B+C | 00012007-50 | Terminal set Phoenix screw side (4x SS 35/19; 1x KZ 51/03) with labeling strip and coding elements |
| SV-AIO288 B+C | 00010864-50 | Terminal set Phoenix screw frontside (4x SS 35/19; 1x SV 51/03) with labeling strip and coding elements |

1) Item is discontinued and replaced by KZ-AIO288 B+C (00026125-00).