



## 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	
<b>Voltage inputs</b>	
Quantity	Max. 8
Input voltage	±1 V or ±10 V
Input impedance	> 100 kΩ
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 μs
<b>Voltage outputs</b>	
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 μs
Cross-talk attenuation	> 60 dB
Refresh cycle time	200 μs
<b>Current inputs</b>	
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 μs
<b>Temperature inputs</b>	
Temperature inputs	Pt100, Pt1000 selectable
Quantity	Max. 4
Connection type	2- or 4-wire, optional
Temperature range	-100 to +500 °C
Input impedance	> 100 kΩ
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 μs
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 <sup>1)</sup>	00012598-50	Terminal set cage clamp small (4x KS 35/19; 1x KZ 51/03) with labeling strip and coding elements → <b>not for new developments</b>
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).