

# Analog Input / Output Modules



## AI204/x Analog Input Modules

The analog input module AI204/x offers two or four high-resolution 16 bit analog input channels depending on the model. The extraordinarily high accuracy with integrated temperature calibration predestine this unit for demanding measurement applications for industrial processes.

- 1, 2, or 4 analog inputs
- Input voltage -10 to +10 V
- Resolution: 16 bit
- Sample time from 20  $\mu$ s
- Inputs can be synchronized
- Galvanic isolation of channels
- Galvanic isolation from system
- Temperature calibration
- Connection possibility differential
- Internal voltage generation is monitored

Item	Item No.
AI204/1	00010693-20
AI204/2	00010693-10
AI204/4	00010693-00

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### AI204/x

#### Voltage inputs

Quantity	1, 2 or 4
Input voltage	±10 V
Input impedance	>33 kΩ
Digital resolution	16 bit
Value of the LSB	305 μV
Allowed common mode voltage	Max. ±2 V
Cross-talk attenuation	>66 dB
Cross-talk attenuation	>120 dB between the channels
Error at 25 °C	±1 mV (±0.005 %)
Error at the entire temperature range	±1 mV (±0.005 %)
Sample time	20 / 160 / 320 / 640 μs at 1- / 8- / 16- / 32-times sampling
Temperature calibration	Normally 500 μs per calibration
Input filter	0.33 kHz / 4 kHz selectable by software
Galvanic isolation of channels	500 V
Galvanic isolation from system	500 V

#### Approvals / Certificates

General	CE, UL/cUL, CCC
Marine	GL/DNV, LR, ABS, BV

#### Ambient conditions

Operating temperature	-30 to +60 °C
Rel. humidity operation	5 to 95 % without 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)

### Order Codes AI204/x

Item	Item No.	Description
AI204/1	00010693-20	Analog input module; 1x In ±10V; 16bit; high precision 0.005 %; 20μs sampling time; digital averaging; single isolated
AI204/2	00010693-10	Analog input module; 2x In ±10V; 16bit; high precision 0.005 %; 20μs sampling time; digital averaging; single isolated
AI204/4	00010693-00	Analog input module; 4x In ±10V; 16bit; high precision 0.005 %; 20μs sampling time; digital averaging; single isolated

#### Accessories

KS-AI204/4 B+C	00013156-50	Terminal set cage clamp small (4x KS 35/04) with labeling strips and coding elements
SS-AI204/4 B+C	00012008-50	Terminal set Phoenix screw side (4x SS 35/04) with labeling strip and coding elements
KS-AI204/2 B+C	00013155-50	Terminal set cage clamp small (2x KS 35/04) with labeling strip and coding elements
SS-AI204/2 B+C	00011979-50	Terminal set Phoenix screw side (2x SS 35/04) with labeling strip and coding elements
KZ-AI204/1 B	00012053-30	Terminal set Phoenix cage clamp small (1x KZ 35/04) with labeling strip