AI204/x
Analog Input Modules

The analog input module AI204/x offers 1, 2 or 4 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.

Features

- 1, 2 or 4 analog inputs
- Input voltage -10 V to +10 V
- 16 bit resolution
- Sampling time from 20 µs
- Inputs can be synchronized
- Galvanic isolation between channels
- Galvanic isolation from the system
- Temperature calibration
- Connection possibility differential
- Internal voltage generation is monitored

Part type designation	Part number
AI204/1	00010693-20
AI204/2	00010693-10
AI204/4	00010693-00

AI204/x

Voltage inputs	
Number	1, 2 or 4
Input voltage	±10 V
Input impedance	> 33 kΩ
Digital resolution	16 bit
Value of LSB	305 µV
Permitted common mode voltage	Max. ±2 V
Common mode rejection	> 66 dB
Cross-talk attenuation	> 120 dB between the channels
Error at 25°C	±1 mV (±0.005 %)
Error in the entire temperature range	±1 mV (±0.005 %)
Sampling time	20/160/320/640 µs at 1-/8-/16-/32-fold sampling
Temperature calibration	Type. 500 µs per calibration procedure
Input filter	0.33 kHz / 4 kHz selectable by software
Galvanic isolation between channels	500 V
Galvanic isolation from the system	500 V
Approvals/Certificates	
General	CE, UKCA, cULus
Marine	ABS, BV, DNV, KR, LR, NK, RINA
Environmental conditions	
Operating temperature	-30 °C to +60 °C
Relative humidity, operation	5 % to 95 % noncondensing
Storage temperature	-40 °C to +85 °C
Relative humidity, storage	5 % to 95 % with condensation
Pollution degree (IEC 60664-1)	2 (noncondensing)

Order data

Part type designation	Part number	Description
AI204/1	00010693-20	Analog input module; 1x In ±10 V; 16 bit; high precision 0.005 %; 20 µs sampling time, single isolated
AI204/2	00010693-10	Analog input module; 2x In ±1 V; 16 bit; high precision 0.005 %; 20 µs sampling time, single isolated
AI204/4	00010693-00	Analog input module; 4x In ±10 V; 16 bit; high precision 0.005 %; 20 µs sampling time, single isolated

Accessories

Part type designation	Part number	Description
KZ-AI204/1 B	00012053-30	Terminal set Phoenix cage clamp (1x KZ 35/04) with labeling strips
KS-AI204/2 B+C	00013155-50	Terminal set cage clamp narrow (2x KS 35/04) with labeling strips + keying elements
SS-AI204/2 B+C	00011979-50	Terminal set Phoenix screw lateral (2x SS 35/04) with labeling strips + keying elements
KS-AI204/4 B+C	00013156-50	Terminal set cage clamp narrow (4x KS 35/04) with labeling strips + keying elements
SS-AI204/4 B+C	00012008-50	Terminal set Phoenix screw lateral (4x SS 35/04) with labeling strips + keying elements