



AI208/SI Analog Input Modules

The compact analog input module AI208/SI offers eight individual galvanically isolated current inputs. The measuring range is ± 24.6 mA and covers the standards 4 mA to 20 mA, 0 mA to 20 mA and -20 mA to +20 mA. Via adjustable measuring range limits errors, such as short circuit, sensor defect or cable break can be easily detected. Threshold values that can be configured within the measuring range permit monitoring of the process factor without having to sample it. The shunt is protected against short circuit of the 24 V supply, which can easily occur with the sensor wiring. Robustness and above-average diagnostic capabilities are the outstanding characteristics of this input module.

Features

- 8 analog inputs
- Input current 0 mA to 20 mA, 4 mA to 20 mA, -20 mA to +20 mA
- Input impedance approx. 200 Ω
- Resolution: 13 bit to 16 bit
- Adjustable input filter 2.5 kHz to 2.5 Hz

Part type designation	Part number
AI208/SI	00017772-00
AI208/SI CC	00018843-00

AI208/SI

Current inputs	
Number	8
Input current range	0 mA to 20 mA, 4 mA to 20 mA, -20 mA to +20 mA
Measuring range	±24.6 mA
Input impedance	Typically 200 Ω
Digital resolution	13 bit (2.5 kHz filter) to 16 bit (10 Hz filter)
Value of LSB	751.202 nA
Cross-talk attenuation	> 80 dB between the channels
Signal suppression 50 Hz/60 Hz	75 dB/80 dB at 2.5 Hz filter
Sampling frequency	Max. 10 kHz (filter 2.5 kHz)
Filter slope	From cut-off frequency (3 dB) with 60 dB/decade
Input filter	Adjustable: 2.5 kHz, 1.2 kHz, 640 Hz, 320 Hz, 160 Hz, 80 Hz, 40 Hz, 20 Hz, 10 Hz, 5 Hz, 2.5 Hz
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	Standard	ColdClimate (❄️)
Operating temperature	-30 °C to +60 °C	
Relative humidity, operation	5 % to 95 % noncondensing	5 % to 95 % with condensation
Storage temperature	-40 °C to +85 °C	
Relative humidity, storage	5 % to 95 % with condensation	
Pollution degree acc. IEC 60664-1	2 (noncondensing)	2

Order data

Part type designation	Part number	Description
AI208/SI	00017772-00	Analog input module 8x In; ±20 mA; 13 bit to 16 bit; 0.1 %; sampling time configurable up to 100 µs; threshold; single isolated
AI208/SI CC	00018843-00	Like AI208/SI; ColdClimate (❄️)

Accessories

Part type designation	Part number	Description
KZ-AI208/SI B+C ¹⁾	00019091-00	Terminal set cage clamp (8x KZ 35/03) with labeling strip and coding elements → not for new developments
KS-AI208/SI B+C	00027409-00	Terminal set cage clamp small (8x KS 35/03) with labeling strips and coding
SS-AI208/SI B+C	00019866-00	Terminal set Phoenix screw lateral (8x SS 35/03) with labeling strips and coding

¹⁾ Article will be discontinued and replaced by KS-AI208/SI B+C (00027409-00)