

Analog Input / Output Modules



AI202/SI, AI204/SI Analog Input Modules

The analog input module AI20x / SI offers two or four high resolution analog 16 bit current input channels. Single channel isolation, high immunity to interference, as well as integrated signal filtering (delta-sigma converter) make this module particularly interesting for process technology.

- 2 or 4 analog inputs
- Input current 0 to 20 mA
- Input impedance 75 Ω
- Resolution: 16 bit
- Refresh cycle time 250 ms/channel
- Galvanic isolation of channels
- Galvanic isolation from system
- Monitoring of internal voltages

| Item | Item No. |
|----------|-------------|
| AI202/SI | 00012245-10 |
| AI204/SI | 00012245-00 |

Analog Input / Output Modules

AI202/SI, AI204/SI

Current inputs

| | |
|---------------------------------------|---|
| Quantity | 2 (AI202 / SI) or 4 (AI204 / SI) |
| Input current range | 0 to 20 mA |
| Input impedance | 75 Ω |
| Digital resolution | 16 bit |
| Value of the LSB | 509 nA ($V_{ref} = 2.5 \text{ V}$ to 75 Ω) |
| Cross-talk attenuation | > 100 dB between the channels |
| Signal suppression 50 Hz / 60 Hz | > 60 dB |
| Error at 25 °C | $\pm 0.1\%$ |
| Error at the entire temperature range | $\pm 0.5\%$ |
| Sample frequency | 4 measurements per second/channel |
| Input filter | fg (3dB) delay time 1ms, Low-pass filter: 1st order |
| 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 AI202/SI, AI204/SI

| Item | Item No. | Description |
|----------|-------------|---|
| AI202/SI | 00012245-10 | Analog input module; 2x In 20mA; 16bit; 0.1%; single isolated |
| AI204/SI | 00012245-00 | Analog input module; 4x In 20mA; 16bit; 0.1%; single isolated |

Accessories

| | | |
|-----------------|-------------|---|
| SS-AI202/SI B+C | 00012354-50 | Terminal set Phoenix screw side (2x SS 35/03) with labeling strip and coding elements |
| SS-AI204/SI B+C | 00012353-50 | Terminal set Phoenix screw side (4x SS 35/03) with labeling strip and coding elements |
| KS-AI204/SI B+C | 00024539-00 | Terminal set cage clamp small (4x KS 35/03) with labeling strip and coding elements |