AIE - 8U

8 Channel Analog input Module
MODBUS over TCP/IP Interface

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Highlights

- 8 Differential Input Analog Channels
- Each Channel Independently Configurable for Thermocouples, RTDs, Volts, mV and mA (No Jumper Settings)
- Industry Standard MODBUS/RTU Over TCP/IP Interface
- PC Tool for Easy Configuration and Parameter Settings
- PC Software for Online Data Monitoring & Recording

Features

- Fast Channel Update Rate : 0.25 Seconds per Channel
- Automatic CJC for Thermocouple & LRC for RTD Input
- 16 Bit Sigma-Delta ADC (±32,768 Counts)
- Software Linearization for Thermocouple & RTD Inputs
- High Accuracy, High Resolution, High Stability
- DIN-Rail & Wall Mounting Versions
- Wide Supply Voltage Range : 20 ~ 34 VDC (24 VDC Nominal)

Specifications

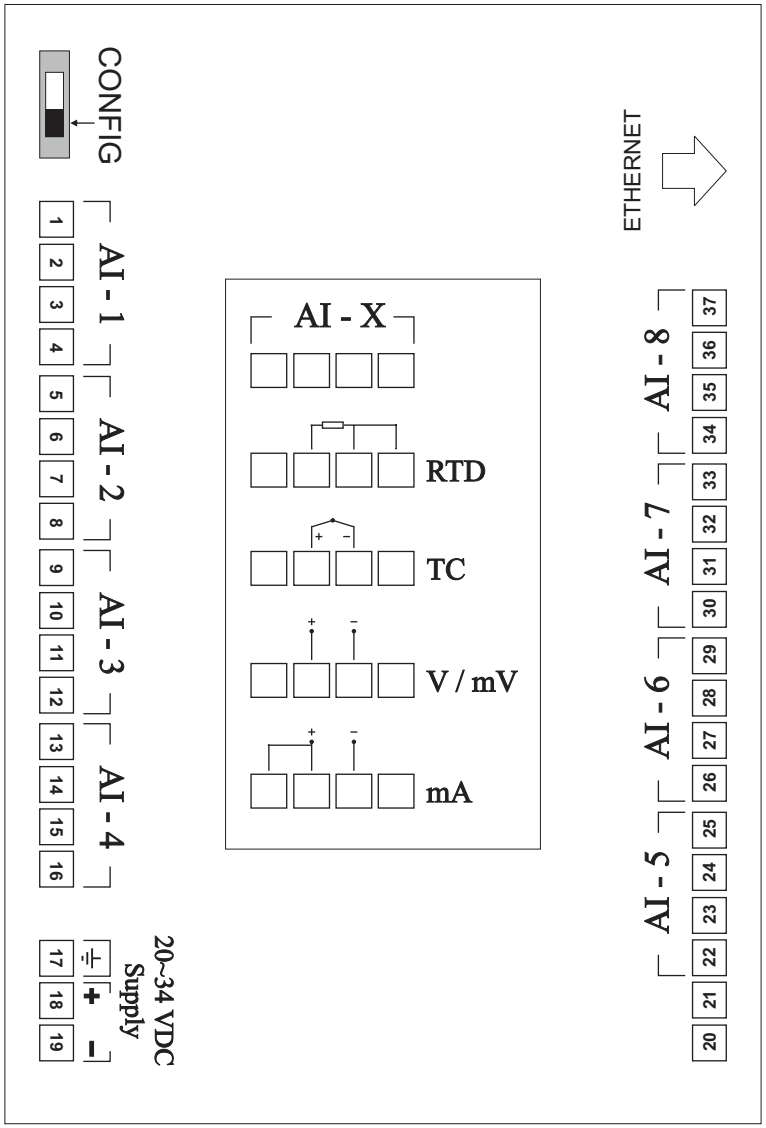
Analog Input Channels	
Number of Channels	8, Universal
Input Type (Independently Programmable for Each Channel)	Thermocouple : J, K, T, R, S, B, N RTD : Pt100, 3-Wire Current : 0-20 mA, 4-20 mA Volts : 0-80 mV, 0-1.25V, 0-5 V, 1-5 V, 0-10 V
Accuracy	Thermocouple & RTD : ± 0.25% of reading ± 1°C DC Volts / Current : ± 0.25% of reading ± 1 LSD
Corrections	• In-built Cold-Junction Compensation for Thermocouples (Accuracy Better than ± 0.5°C) • In-built Lead Resistance Compensation for RTD (Upto 22 Ohms in each lead)
Range	Thermocouple & RTD Pt100 : Refer Table-1 DC Volts / Current : ±0 to 30000 Counts
ADC	16 Bit (±32,768 Counts), Sigma-Delta (ΣΔ)
Sampling Time	250mS Per Channel
Input Resistance	Differential Mode > 20 MΩ Common Mode > 10 MΩ
Common Mode Rejection	> 100dB at 50/60 Hz
Input Protection	ESD : 8KV EFT : 2KV Surge : 1KV
Input Conditioning	First Order Analog R-C Low-Pass Filter

TCP/IP Communication	
Port	Ethernet 10-Base T, Half Duplex
Compliance	IEEE 802.3/802.3u
Connector	RJ45 with Magnetics
Protocol	Modbus RTU over TCP/IP (Port 502)
Sockets Supported	4
Settable Parameters	IP Adderess, Gateway Adderess, SubNet Mask, Device ID Adderess
Power Supply	
Type	Switch Mode (SMPS)
Supply Voltage	20~34 VDC (24 VDC Nominal)
Consumption	3VA Max
Physical	
Mounting	DIN-Rail / Wall Mounting
Overall Dimensions	115(W) X 131(L) X 52(D), mm
Terminals	Screw Type
Weight	400 gm, Appx.
Environmental	
Operating Ambient	0~55°C & 5~90%RH Non-condensing
Storage Temperature	-10 to +70°C
EMC Standards	EN50081-2 & EN 50082-2 Generic Stds for Industrial Environment
Safety Standards	Meets EN61010, Installation Catagory II
Atmospheres	Not Suitable for use in Corrosive or Explosive Atmospheres. The Panel in which the Instrument is Mounted must be free of Electrically Conductive Pollution.

Table 1 : Temperature Ranges for Thermocouples & RTD

Input Type	Range (Min. to Max.)
Type J Thermocouple (Fe-K)	0 to +960.0°C
Type K Thermocouple (Cr-Al)	-200.0 to +1376.0°C
Type T Thermocouple (Cu-Con)	-200.0 to +385.0°C
Type R Thermocouple (Pt/Pt-Rh13%)	0 to +1770.0°C
Type S Thermocouple (Pt/Pt-Rh10%)	0 to +1765.0°C
Type B Thermocouple	0 to +1825.0°C
Type N Thermocouple	0 to +1300.0°C
3-wire, RTD Pt100	-199.9 to 600.0°C

Back Panel Terminations



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