

# ANALOG TO MODBUS RTU MODULE

The analog to MODBUS Modules convert analog inputs signals to digital data and transmit via RS-485 using the MODBUS RTU protocol for communication. The Module can take 2 channels voltage / current and 1 channel Thermocouple. This module can communicate with PLC/PC applications to be used for machine automation, data logging and process control applications.

## FEATURES

- 24 bit measurement resolution.
- 3 Channel Input - Two current / voltage, one Thermocouple input - User configurable
- Converts Analog sensor values to RS-485 protocol digital output
- Transient suppression on RS-485 communications lines, Built-in TVS/ESD Protection
- Dip-switch selection for Baud Rate and Slave ID selection

## UNIQUE SELLING POINT

- Replace high cost Analog input module or Thermocouple module on PLC.
- Plug & Play - Get numeric value of analog value of sensor in directly on MODBUS
- High resolution (24 bit), in spite of any PLC configuration
- Compatible with low end PLC as well.
- Do away with expensive high end PLCs

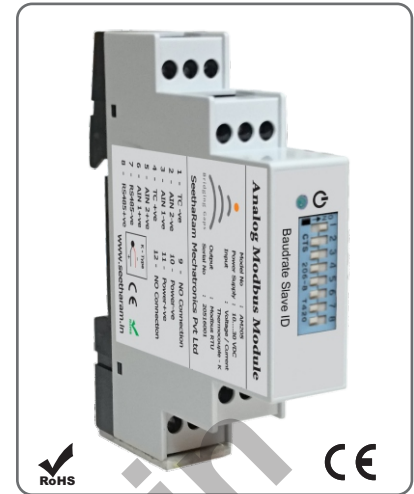
## APPLICATIONS

- Small machine automation - Interface to PLC
- Process monitoring and control
- Remote data logging to any host computer
- Product testing

## TECHNICAL SPECIFICATION

Model	AM205
Power supply	12 to 30VDC
Watchdog timer	System & Communication
Supported protocols	Modbus RTU
Channels	2 (default), 3 (option K-type thermocouple)
Input impedance	1M $\Omega$ for Voltage
Input type	V, mA & TC-K (mV)
Input range	0-10VDC, 0-20mA & -200 to 1350 $^{\circ}$ C
Accuracy	Voltage mode: $\pm$ 0.1% or better than Current mode: $\pm$ 0.2% or better than Temperature: $\pm$ 1 $^{\circ}$ C or better than
A/D Resolution	24bit
Communication	RS485
Sampling Rate	30 Sample/Sec/Channel for Voltage / Current 10 Sample/sec for TC
Baud rate	9600 - 115200kbps (User selectable through dip switch)
Slave Id	1 - 15 (user selectable through dip switch)
Oversvoltage Protection	YES
Built-in TVS/ESD Protection	YES
Operating Temperature ( $^{\circ}$ C)	0-60
Storage Temperature ( $^{\circ}$ C)	- 10 to 85
Protection class	IP40 (Enclosure), IP30 (Base plate), IP20 (Connector cutout)
Mounting	Rail-DIN EN 60715
Dimension (mm)	17.5 x 90 x 71
Weight (gm)	65

Specifications are subject to change without Prior notice



## ORDERING CODE

Current / Voltage selection is user configurable by jumper selection. However, if factory set selection required, use the following code.

Model	Channel 1	Channel 2	Channel 3
AM205	Voltage	Voltage	Thermocouple K
AM206	Voltage	Current	Thermocouple K
AM207	Current	Voltage	Thermocouple K
AM208	Current	Current	Thermocouple K

## ELECTRICAL CONNECTION

1 - AIN 1-ve	7 - RS485-ve
2 - AIN 2-ve	8 - RS485+ve
3 - TC -ve	9 - NO Connection
4 - AIN 1+ve	10 - Power-ve
5 - AIN 2+	11 - Power+ve
6 - TC +ve	12 - NO Connection

## DIMENSIONAL DETAILS

