## Analog Modbus Module

## USER'S MANUAL




Bridging Gaps

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## 1. Technical Specification

| Model | AM205 |
| :---: | :---: |
| Power supply | 12 to 30VDC |
| Watchdog timer | System \& Communication |
| Supported protocols | Modbus RTU |
| Channels | 3 |
| Input impedance | $1 \mathrm{M} \frac{1}{2}$ for Voltage |
| Input type | $\mathrm{V}, \mathrm{mA}$ \& TC-K (mV) |
| Input range | O-10VDC, $0-20 \mathrm{~mA}$ \& - 200 to $1350{ }^{\circ} \mathrm{C}$ |
| Accuracy | Voltage mode: $\pm 0.1 \%$ or better than |
|  | Current mode: $\pm 0.2 \%$ or better than |
|  | Temperature: $\pm 1^{\circ} \mathrm{C}$ 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) |
| Overvoltage Prolection | YES |
| Built-in TVS/ESD Protection | YES |
| Operating Temperature $/{ }^{\circ} \mathrm{C} /$ | 0-60 |
| Storage Temperature ( ${ }^{\circ} \mathrm{C}$ ) | - 10 to 85 |
| Protection class | IP40 (Enclosure), IP30 (Base plate), IP20 (Connecter cutout) |
| Mounting | Rail-DIN EN 60715 |
| Dimension (mm) | $17.5 \times 90 \times 71$ |
| Weight (gm) | 65 |

## 2. Electrical Connection

$$
\begin{aligned}
& 1 \text { - TC -ve } 7 \text { - RS485-ve } \\
& 2 \text { - AlN 2-ve } 8 \text { - RS485+ve } \\
& 3 \text { - AlN 1-ve } 9 \text { - NO Connection } \\
& 4 \text { - TC +ve } 10 \text { - Power-ve } \\
& 5 \text { - AIN 2+ve } 11 \text { - Power+ve } \\
& 6 \text { - AlN 1+ve } 12 \text { - NO Connection }
\end{aligned}
$$

## 3. Product Description

## Power on/off $4-\mathrm{c}^{2} 50$ (6) <br> Baudrate Slave id <br>  <br> Terminal

Note: Dip switch $8-$ ON (Current Input)
OFF (Voltage Input) 05

## Software Settings

- Connect RS 485 converter to PC.
- Right click my computer - manage - device manager
- ports - displays connected port
- Go to connection select port, select the baud rate las in dip switch)
- Data bits selection
- 8 data bits
- None parity
- 1 stop bit
- Select Mode RTU
- Press OK


## Connection



- Go to poll definition
- Select the Slave ID (as in dip switch)
- Select function - read input registers
- Press ok


## Poll Definition



- Connection will be established between modbus and PC.


## 4. Precaution

- Please keep it out of wet places
- Do not set it up near vibration \& impulse, high temperature and humidity.
- Keep it out of the direct rays of the sun. Set it up where there is less dust, and Keep it out of direct air including salt and ion.
- Do not use when there is inflammable gas or heavy machinery, and smog.
- Use insulated tuner.


## 5. Warning

"It is strictly forbidden to use this product for any other purpose of use or to attempt to make any alteration on this product."

## O 6. DO'S

- Check for product labels. If connection details on product not available contact factory.
- Check for input and output terminal polarity before switch on the power supply.
- Use regulated DC power supply
- Ensure module working status by power led indication
- Ensure proper mounting on din rail 60715


## Q DON'T'S

- Interchange polarity connection at input (or) output terminal.
- Interchange connection between input and output terminal side.
- Physical load on module
- If Dip Switch 8 is ON Don't excite voltage input


## 7. Procedure

- Terminate according to electrical connection
- Select baud rate and slave id in dipswitch

| BAUD <br> RATE | 7 | 6 | 5 | DEVICE <br> ID | 4 | 3 | 2 | 1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 9600 | OFF | OFF | OFF | 1 | OFF | OFF | OFF | ON |
| 2400 | OFF | OFF | ON | 2 | OFF | OFF | ON | OFF |
| 4800 | OFF | ON | OFF | 3 | OFF | OFF | ON | ON |
| 9600 | OFF | ON | ON | 4 | OFF | ON | OFF | OFF |
| 19200 | ON | OFF | OFF | 5 | OFF | ON | OFF | ON |
| 38400 | ON | OFF | ON | 6 | OFF | ON | ON | OFF |
| 57600 | ON | ON | OFF | 7 | OFF | ON | ON | ON |
| 115200 | ON | ON | ON | 8 | ON | OFF | OFF | OFF |
|  |  |  |  | 9 | ON | OFF | OFF | ON |
|  |  |  |  | 10 | ON | OFF | ON | OFF |
|  |  |  |  | 11 | ON | OFF | ON | ON |
|  |  |  |  | 12 | ON | ON | OFF | OFF |
|  |  |  |  | 14 | ON | ON | ON | OFF |
|  |  |  |  | 15 | ON | ON | ON | ON |


| 8 |
| :---: |
| OFF - Voltage I/P |
| ON - Current I/P |

## Use Rs485 to usb converter

for establishing connection between pc and module

