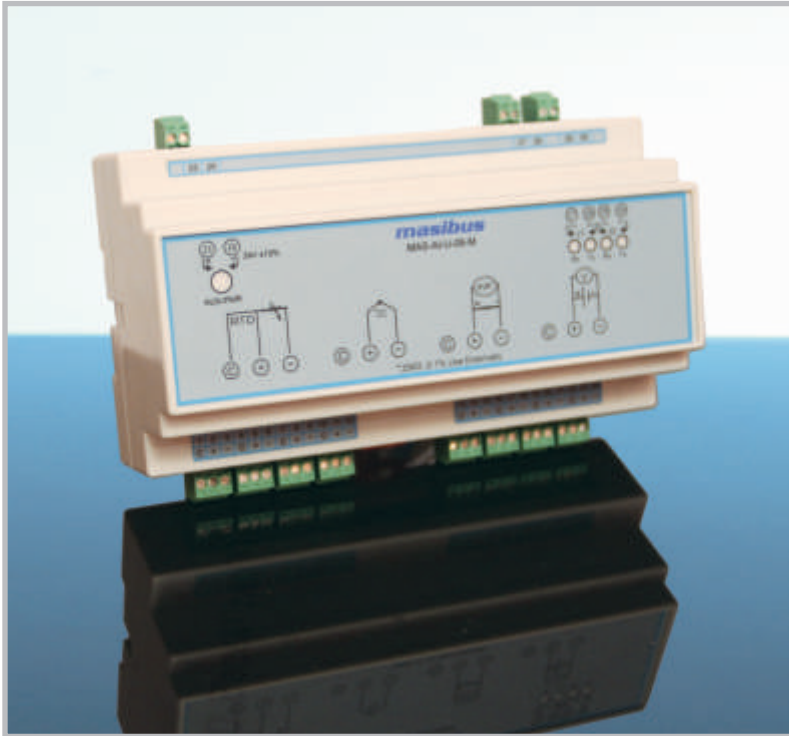


Modbus I/O (Model MAS - AI - U - 8 - M)

MAS-AI-U-8-M



Masibus has introduced a new range of low-cost Modbus based remote IO unit, which provide an easy way for integrating analog signals to supervisory SCADA systems. There are several inputs which this model accepts as an input like mA, V, Pt100, different types of thermocouple, etc. Modbus IO module measures all field signals with accuracy of 0.1% of FS.

MODBUS-IO module is equipped with high speed scanning and all 8 channels are scanned within 1 second irrespective of type of inputs configured. This module is powered by 24VDC auxiliary power supply and power consumption is limited to 3 watts maximum.

This module provides isolation between channel to channel plus all input signals is isolated from power thus protecting the electrical instruments by eliminating ground loop effects. This reduces substantially the undesirable interferences and instabilities in sensor measurements.

MODBUS IO can be easily configured and calibrated via the digital interface by using the Windows based MASIBUS mAIM software. MODBUS IO configuration is done via the RS485 interface by using Modbus RTU commands. The software supplied FREE allows for configuration of MODBUS features as well as complete calibration and diagnosis. It automatically detects active devices in the Modbus network and permits configuration of all parameters.

MODBUS IO module is compact in design and sits on DIN rail mounting of the panel.

Features

- *Accepts mA, V, RTD, T/C - Programmable*
- *8 channels 16 bit resolution*
- *Full Isolation: Supply/input/output and between channels*
- *Dual serial Modbus communication port*
- *24VDC aux power supply*
- *Programming & calibration through PC software*
- *DIN rail mount*
- *Cost effective as Distributed IO*

masibus
Advanced Automation - Sure Solutions

Modbus I/O (Model MAS - AI - U - 8 - M)

Input

Input	Type	Range	Accuracy
TC	E	-200 to 1000°C	±0.1% Of Full span ± 1 digit
	J	-200 to 1200°C	
	K	-200 to 1350°C	
	T	-200 to 400°C	
	B	450 to 1800 °C	
	R	0 to 1750 °C	
	S	0 to 1750 °C	
RTD	Pt 100	-200 to 850°C	
* DC Current	4-20mA		
	0-20mA		
DC Voltage	0-5 V	-1999 to 19999	
	1-5 V		
	0-10 V		

- No of channels** : 8
- Resolution** : 16 bit
- Isolation** : Channel to channel isolation 350 V P-P
- Supply and Communications Ports:** 1500V RMS
- Scan Time** : All Channels in 1 sec
- Drift** : 100ppm / °C.
- Accuracy** : 0.1 % FS

Communication

Communication Interface	Based on EIA RS-485.
Communication method	Half-duplex communication, start stop synchronous.
Communication Speed	4800/9600/19200/38400bps.
Parity	None.
Stop bit	1
Communication Protocol	Modbus RTU.
Connectable number of unit	Max. 31 unit per host computer. Address setting by software.
Communication error detection	Double detection by parity and checksum.

Mode

- Configuration** : I/p type, zero span, decimal point, slave address, band rate, skip/ unskip.
- Calibration** : Zero span, ambient, default setting.
- Run mode** : I/p type, zero span, PV, skip/ unskip.

- Supply voltage** : 24volt (±10% DC)
- Power Consumption** : Max. 3 watt
- CMRR** : > 100dB
- NMRR** : > 60 dB
- Environment** : Ambient: 0 to 55 °C.
Humidity: 20% to 95% RH (Non-condensing).
- Case**
- Material** : ABS plastic
- Color**
- Mounting method** : Din-Rail mounting.
- Dimension** : 90(W) * 60(H) * 160(D) in mm
- Weight** : 380 g

2.2 TERMINAL CONNECTIONS :

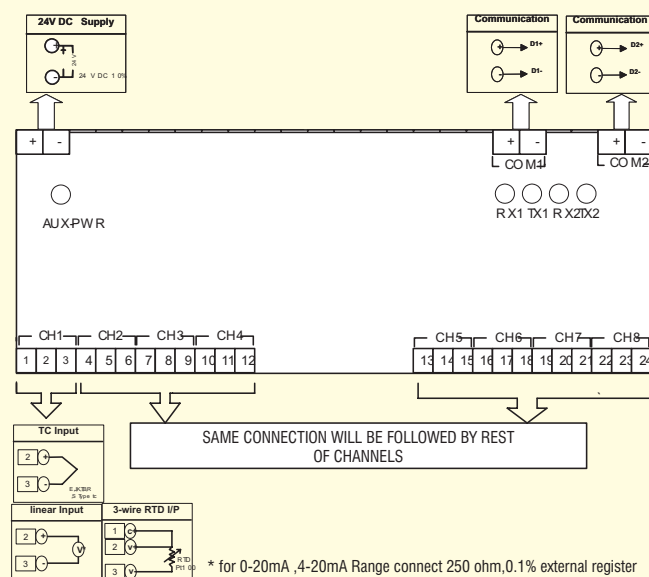


Fig.3