



Field Analog Input Module

FIOA-0800-L

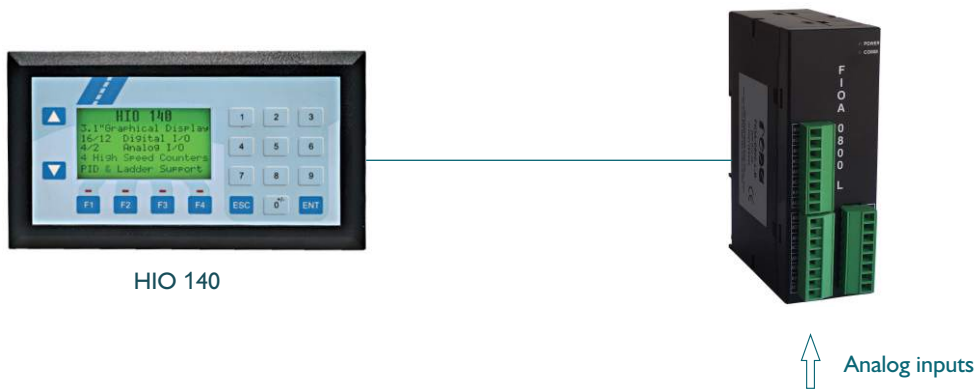
### Analog Input Module :

- Low cost compact Analog Input module with DIN rail mounting
- Programmable inputs allow same module to accept Current (4-20 mA) and Voltage (0-10 VDC) inputs
- 12 bit resolution
- Can accept upto 8 V/I analog inputs
- User definable Address, Baud rate and Parity through DIP Switches
- High Speed Modbus RTU (Slave) communication
- 2 wire RS485 port provided on pluggable terminal block
- Can be multi dropped as Modbus Slave on RS485 Network
- LED Indication for Power and Communication
- Very simple to configure through switches. No programming Software needed.
- CE marked with optional UL certification

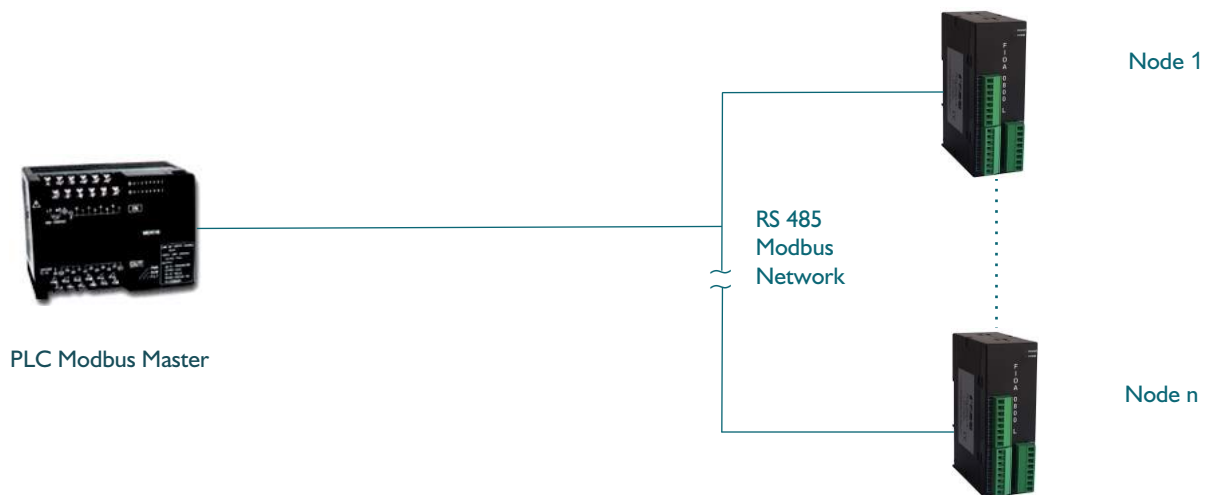
# Possible Applications :

FIOA can be used for various applications in industries. Typical configuration includes the following :

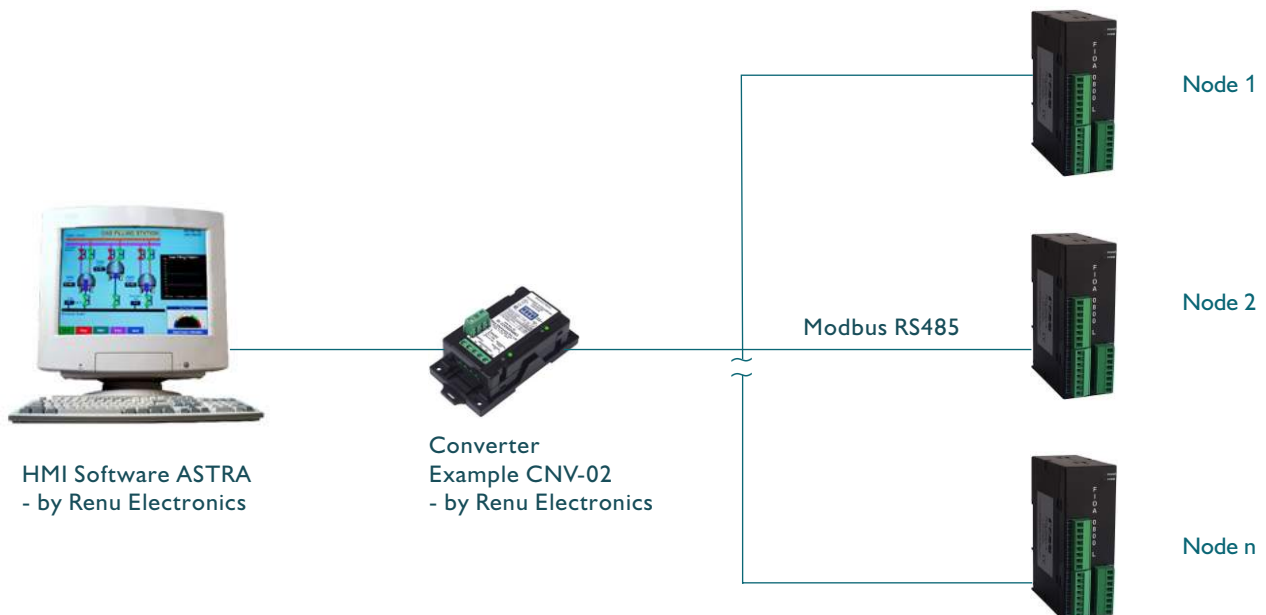
## 1. Add analog inputs to your Controller.



## 2. Multiple FIOA units (Modbus Slaves) connected to Modbus Master



## 3. Data Acquisition Application (SCADA Connectivity)



## Typical Wiring Diagrams :

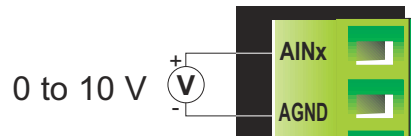
### FIOA-0800-L-B

#### Input Connection:

##### Current Mode connections (4-20 mA)



##### Voltage Mode connections (0-10 VDC)



Note:

AINx: Analog input (x equals to 1 to 8).

AGND: Analog ground. Analog ground for all channels is internally shorted on PCB.

## Specifications :

#### For Current inputs :

Uses 4-20mA input range with 100 E precision shunt resolved in 12 bits.

Total error :  $\pm 0.2\%$  of scale  $\pm 1$  bit.

#### For Voltage inputs :

Uses 0-10VDC input range resolved in 12 bits.

Total error :  $\pm 0.2\%$  of scale  $\pm 1$  bit.

## General Specifications :

Power	: 24V DC $\pm 10\%$ , 2W maximum	Communication Port	: 2 wire RS485 terminal block
Operating Temperature	: 0° to 50°C	Communication Protocol	: Modbus RTU Slave
Storage Temperature	: -20° to 80°C	Baud rate	: 9600, 19.2k, 57.6k or 115.2k (DIP Switch Selectable)
Humidity	: 10% to 90% (Non condensing)	Parity	: Odd, Even or None (DIP Switch Selectable)
Mounting	: DIN rail mounting	Device ID	: 1-64 (DIP Switch Selectable)
Dimensions	: 100 W x 70 H x 35 D mm	Isolation	: 1.5KV isolation between communication ports, I/O and power supply section.
Immunity to ESD	: as per IEC61000-4-2		
Immunity to Fast Transients	: as per IEC61000-4-4		
Immunity to Radiated electromagnetic field	: as per IEC61000-4-3		
Immunity to Conducted disturbances	: as per IEC61000-4-6		
Surge	: as per IEC61000-4-5		
Radiated emission	: as per EN61000-6-4		

## Basic Operations :

FIOA 0800 L is Analog Input Model that accepts 8 Voltage or Current Analog inputs .

The Analog inputs can be Voltage ( 0-10VDC), Current ( 4 – 20 mA) .

Each input channel can be configured independently to work as Voltage or Current as per configuration through switches.

Unit supports standard Modbus RTU (slave) protocol for communicating with master device.

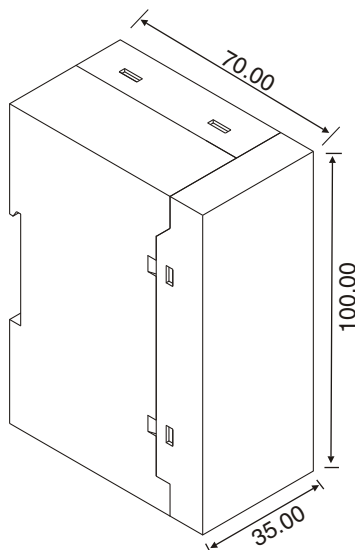
Analog inputs are isolated from the communication port . Power supply is also isolated from all internal circuitry.

Input of the FIOA are user configurable and any combination of input types is possible. Selectable DIP Switches help the user to configure the FIOA units and use them as per application requirements.

### Setup required for FIOA configuration:

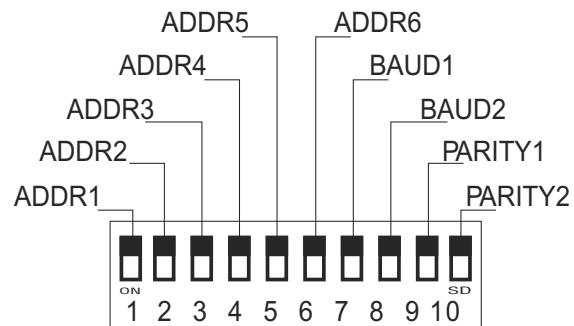
1. FIOA unit
2. +24VDC regulated power supply
3. FIOA to Device cable

## Dimensions :

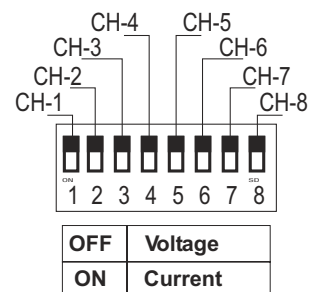


All dimensions are in mm.

## Comm Port Settings :



### MODE SELECTION FIOA-0800-L-B



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