

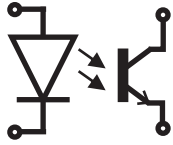
## Module Datasheet

### Introduction

SensOper MC-EX-FD4 Fast Input module is an expansion module that can be used with MC-CPU-CM4-Gx CPU module. This module was implemented for read Digital Input signals. These digital signals process by CPU module. The four inputs in this module optically isolated internally as a protection feature. The module expansion is supported by board-to-board connector with 40 pins.

### Features

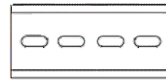
Optically Isolated



Fast Inputs



Din Rail Mounting



LED Indicators



### Expansion

This module supports maximum one unit for single Bus expansion.

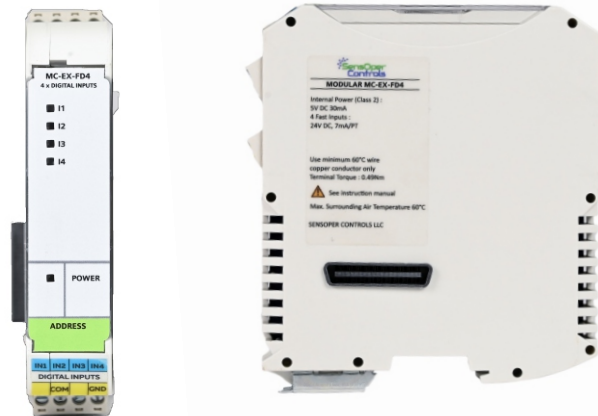


Figure 1: Front and Side view of Fast Input module

### Specifications

Table 1: Fast Input expansion module specifications

Range of Products	Modular Industrial Controller
Product Type	I/O Expansion
Programming	Directly access via RPI CM4 GPIO
Address Configuration	N/A
Input Count	4 x 24V DC Digital
Polarity	Sink/ Source Configurable
Protection	Optically Isolated
I/O Expandability	40 pin board to board connectivity

### Electrical & Mechanical

Table 2: Analog Input expansion module Electrical Characteristics

Electrical	
Rated Supply Voltage	24V DC
Power Consumption	32.6 - 40.4 W

Table 3: Analog Input expansion module Mechanical Characteristics

Mechanical	
Electrical Connection	Removable screw terminal block for inputs and outputs(pitch 5.08 mm)
Mounting	Top hat TH35-15 rail conforming to IEC 60715 Top hat type TH35-7.54 rail conforming to IEC 60715
Height	113.6 mm
Depth	99.60 mm
Width	22 mm
Module Weight	0.21 kg

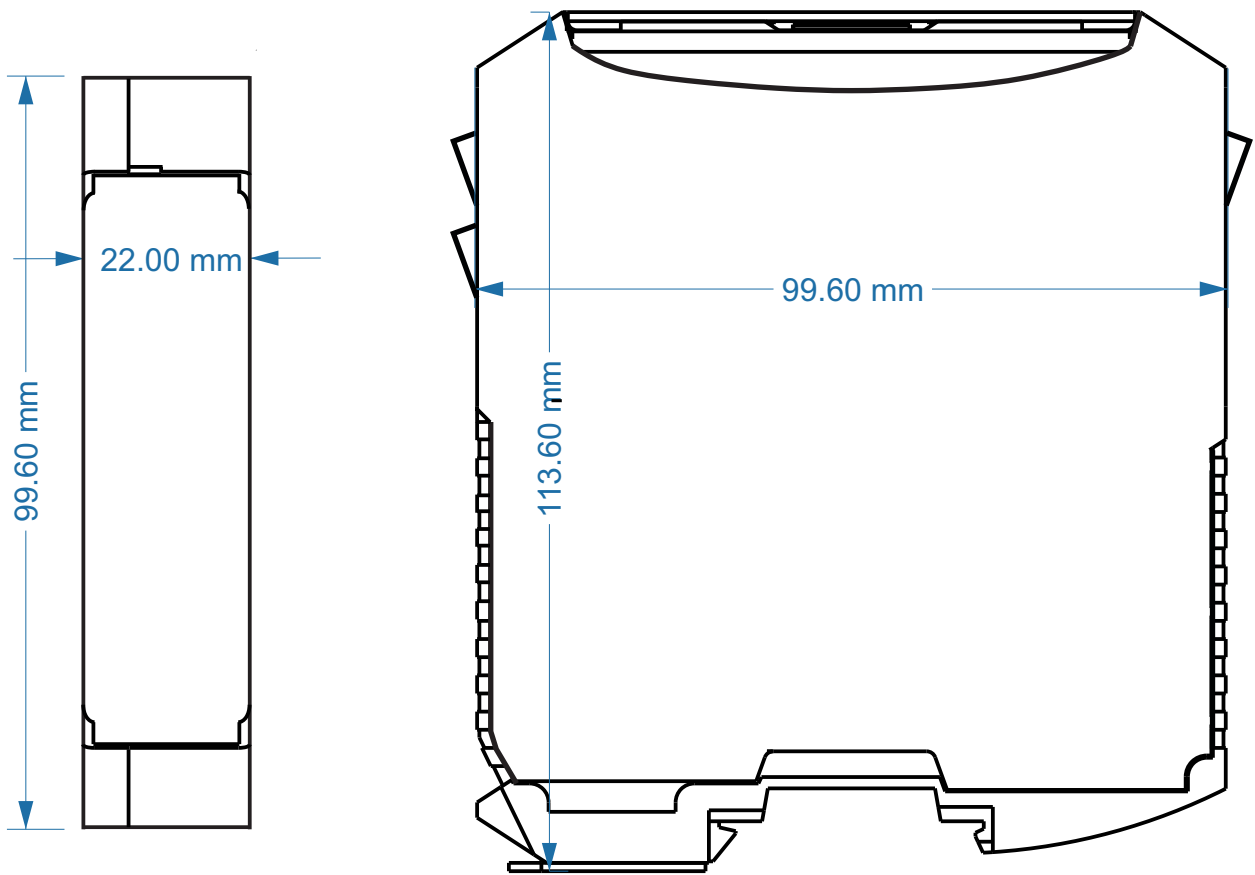
## Module Datasheet

### Environmental

**Table 4:** Fast Input expansion module Compatible Environmental Features

Relative Humidity	10-95% without consideration in operation
IP Degree of Protection	IP 20
Operating Temperature	-10 to +85 Celsius (14 to 185 Fahrenheit)
Storage Temperature	-25 to +85 Celsius (-13 to 185 Fahrenheit)
Operating Altitude	0 to 2000m
Storage Altitude	0 to 3000m
Shock Resistance	15 gn for 11 ms

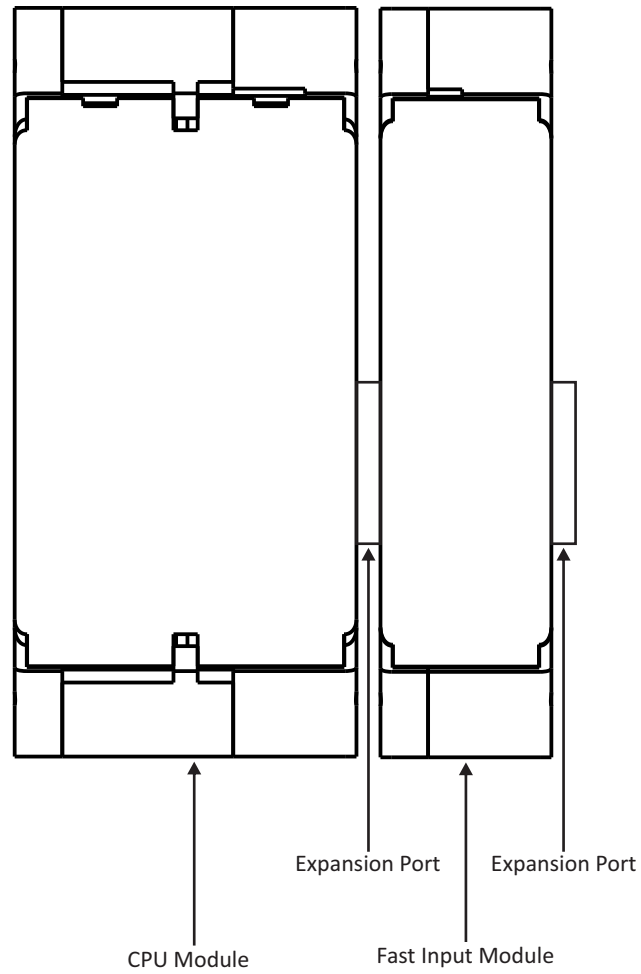
### Module Dimensions



**Figure 2:** Front view and Side view Dimensions of Fast Input module

## Module Datasheet

### Module Expansion



**Figure 3:** Expansion Modules connect with CPU Module

MC-EX-FD4 module have Male and Female port can be connected with CPU module or another expansion modules .



**Figure 4:** Expansion Port male and female ports

## Module Datasheet

### Wiring Diagram of Power up and Input Terminals

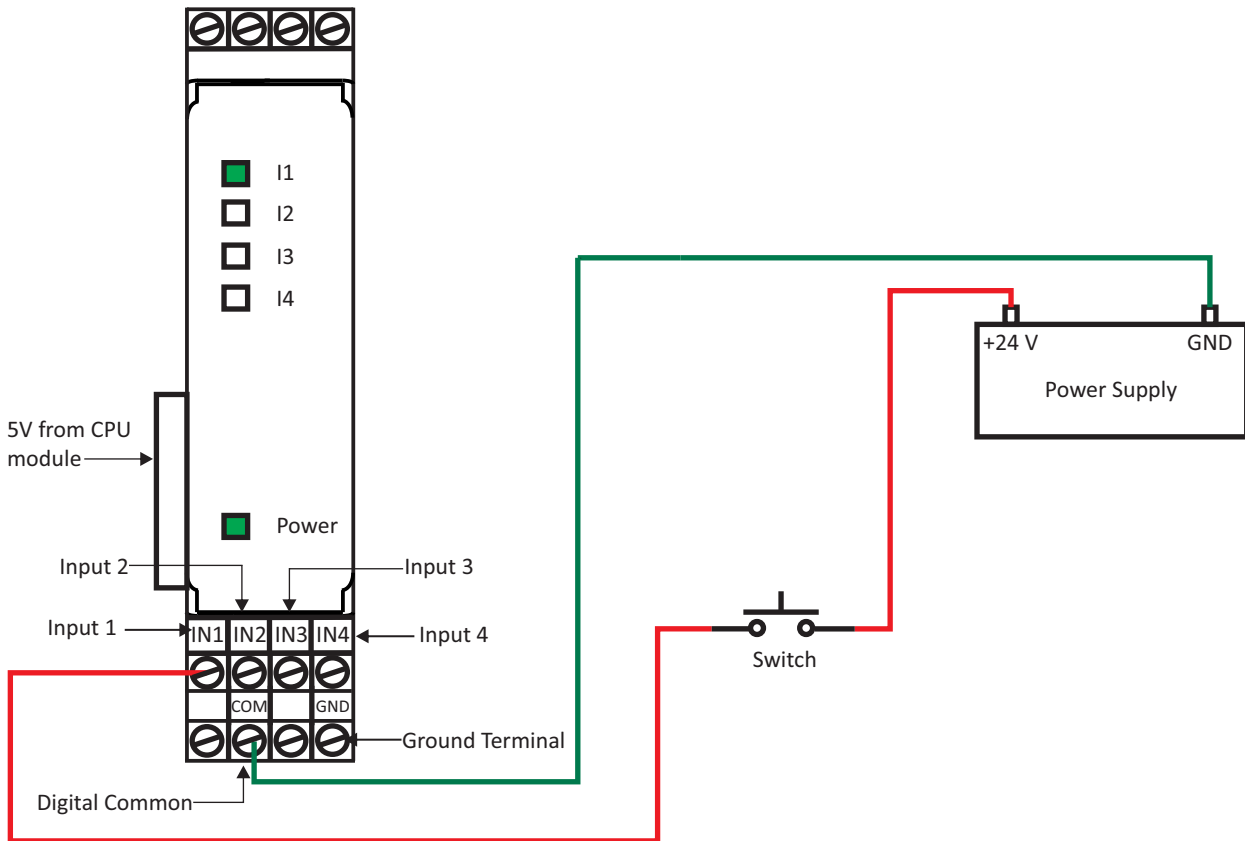


Figure 5(a): The wiring diagram of the Fast Input Module(Source Configuration).

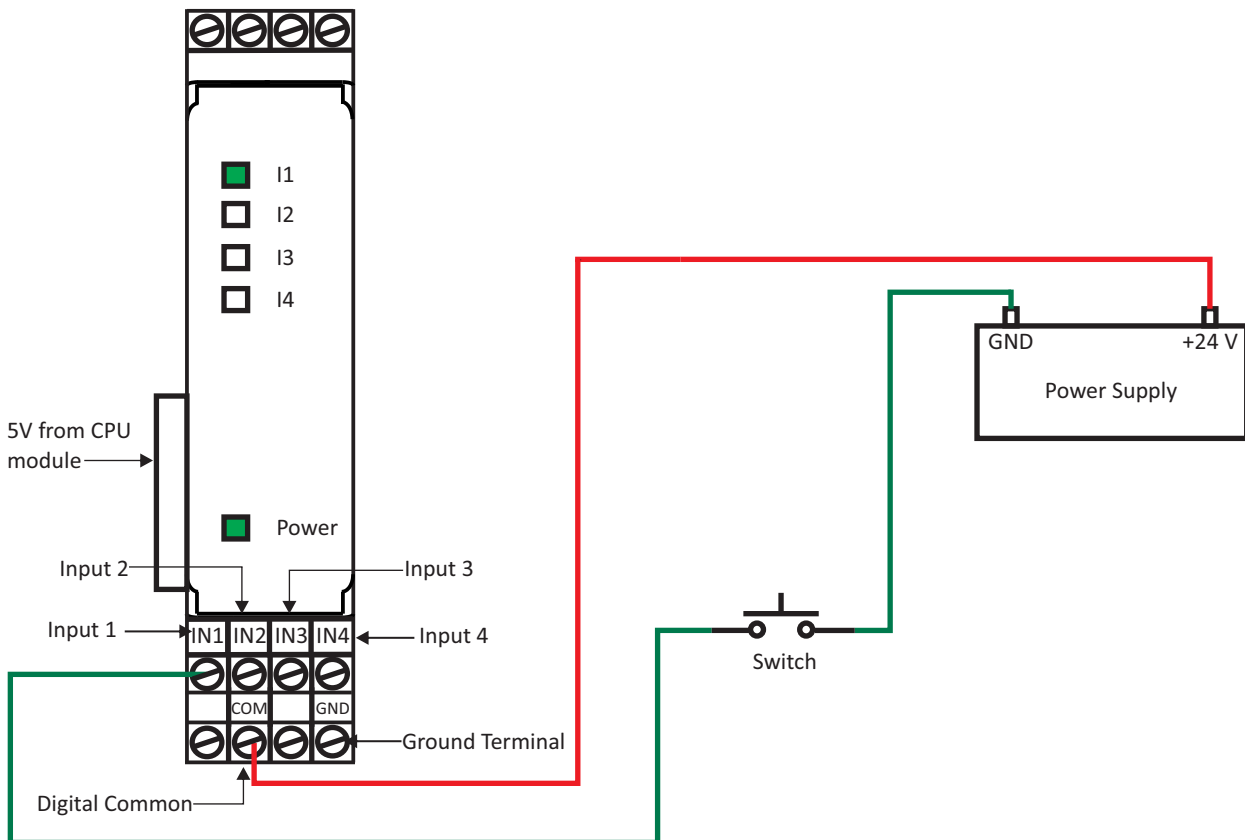


Figure 5(b): The wiring diagram of the Fast Input Module(Sink Configuration).

Figure 5(a), Figure 5(b) shows how to power up the Fast inputs Module. If the wiring is correctly done the Power indication LED will turn on. Further, this wiring diagram shows how to receive source or sink. When Input signal received the I1, I2, I3 & I4 LED indication will blink accordingly.

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### CPU Module and Expansion Module GPIO Connection Diagram

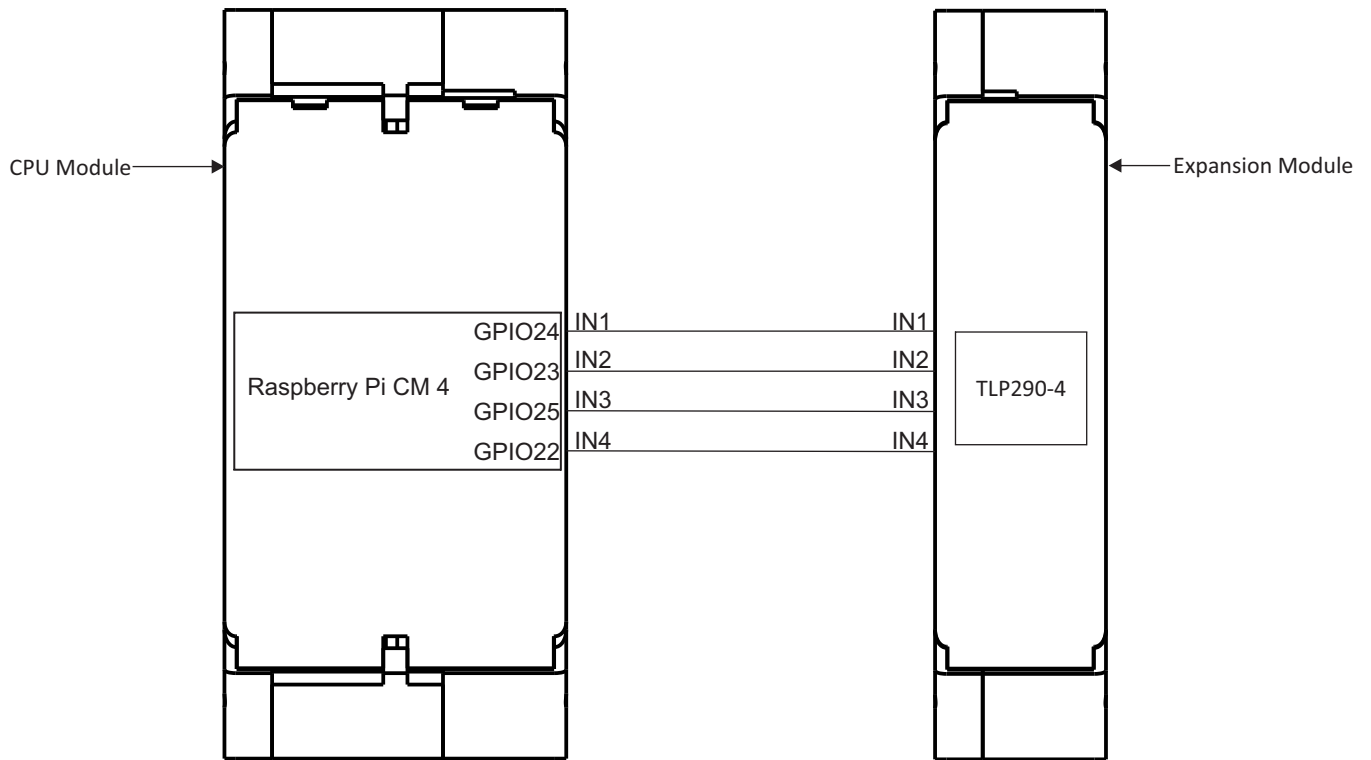


Figure 6: The GPIO connection with CPU module and Expansion Module.

## Module Datasheet

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### Revision History

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The table shown below include the revision history of this document.

Revision Number	Date	Substantial Changes
0	18/3/2022	First Edition of Startup guide
1	-	-

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