# tSG-3781B/tSG-3781L User Manual

## Introduction

The tSG-3781B/L is a 1-channel DC current input signal conditioning module which can convert 4 ~ 20 mA current input to PWM output. This provides an economical solution when the 4 to 20mA current need to be converted to PWM output. The duty cycle, 0% to 100%, of the PWM output is a linear transformation of the 4 to 20mA current input. The frequency of the PWM signal can be in the range 600Hz to 800Hz and it can be adjusted by buttons.

The tSG-3781B/L includes a monochrome graphic LCD display which shows the duty cycle and frequency of the 1-channel PWM output signal. 4 kV ESD and 4 kV EFT protection are also provided to enhance noise protection capabilities in industrial environments.

Note1: The setting buttons are at the bottom of the LCD. (tSG-3781B)
        The setting buttons are on the left side of the LCD. (tSG-3781L)
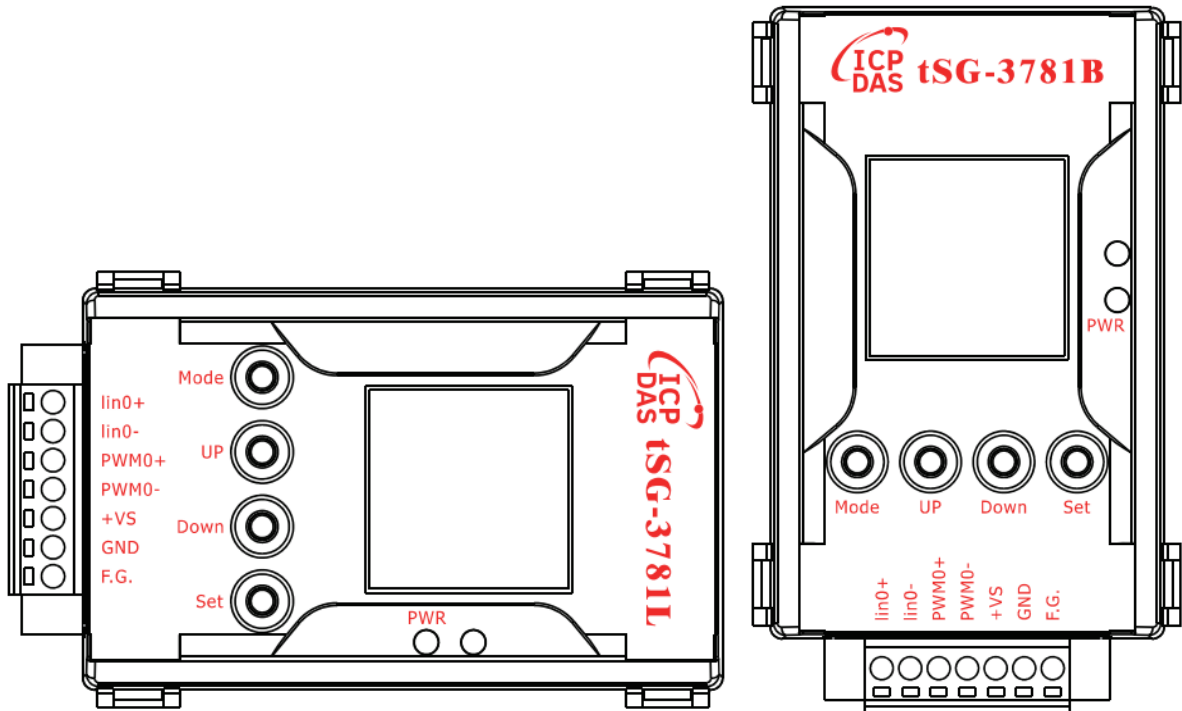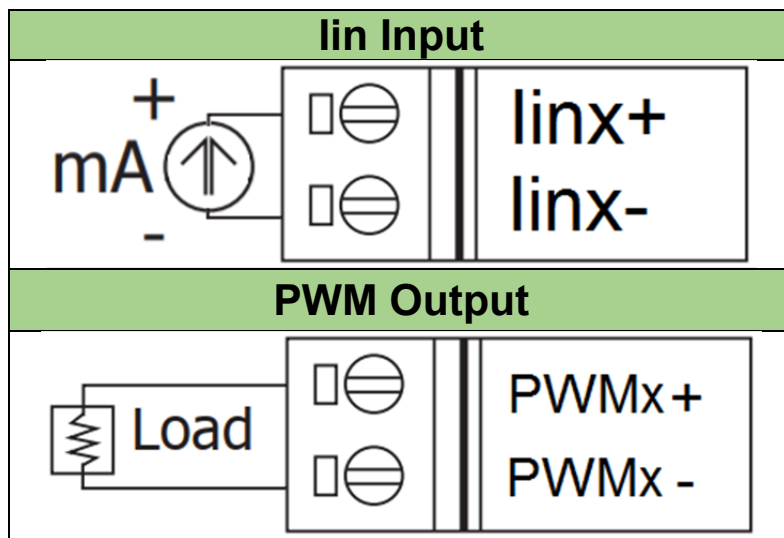
## Appearance

# Applications

● Heating system in buildings
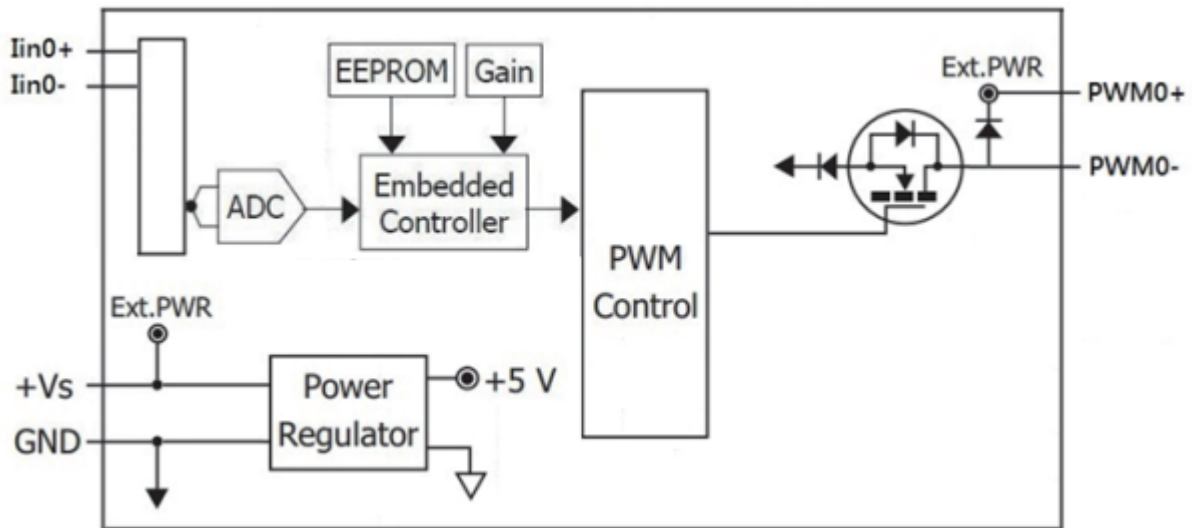● Ventilation system
● Controlling servo-assisted diaphragm valve
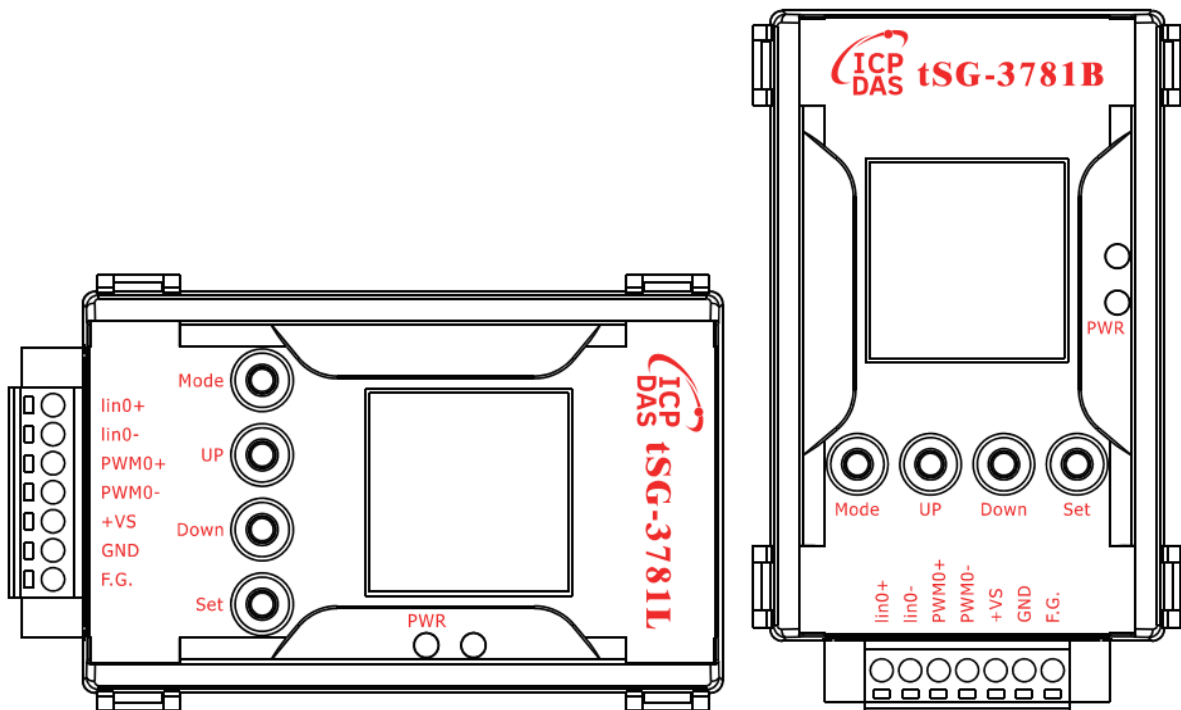
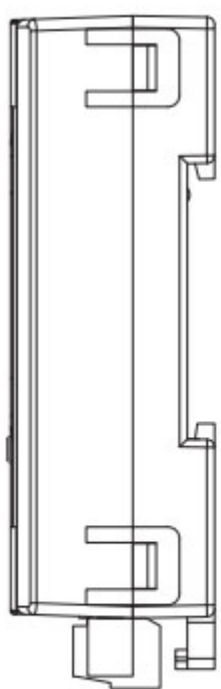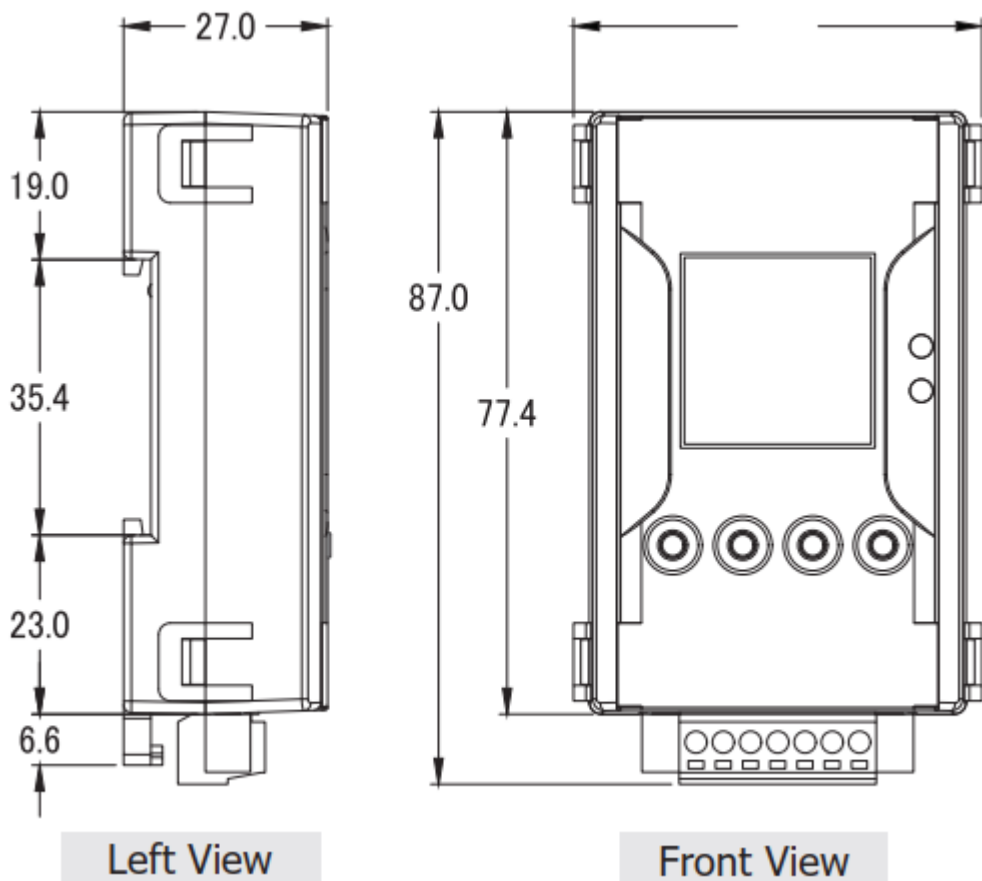## PIN Assignment



## Wire Connection

**Block Diagram**



**PWM Duty Cycle and Frequency setting**

The following figures show the button switch positions used to configure the channel PWM duty cycle and frequency range. The PWM frequency configuration button switches are located left side the module for front view.
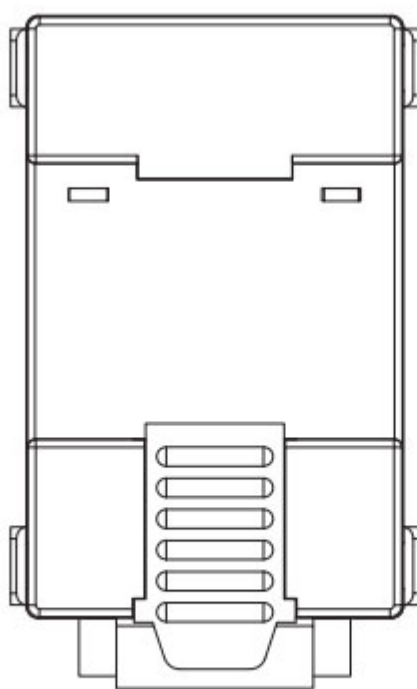


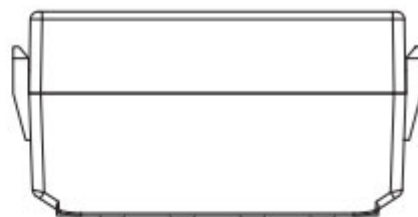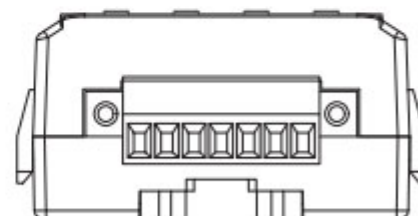| PWR | The power LED of the module |
|---|---|
| Mode | Press MODE to modify the channel frequency, the channel frequency flashes. |
| Up | Press UP to increase the frequency, long press to increase quickly. |
| Down | Press DOWN to decrease the frequency, long press to decrease quickly. |
| Set | Press SET to save the modifi ed value.<br>Press MODE during the modifi cation to stop the modification. |

## Dimensions

27.0

19.0

35.4

23.0

6.6

87.0

77.4

Left View

Front View

Right View

Rear View

Top View

Bottom View

## Technical Service

Please E-mail your problem description to service@icpdas.com when you have any questions.
More detail information: www.icpdas.com