

# M4 Operation Manual

## 1 Introduction

M6 indicator, using professional conditioning circuit, is powered by 4mA~20mA DC circuit without extra power supply. It can be connected to the transmitter with 4mA~20mA DC output signal and Hirschmann plug directly. Its setting and display are based on the collected signal type (pressure, temperature, etc.) and the range of the transmitter. The indicator displays full 4 digits from -1999 to 9999 with a high precision. Its signal processing is based on high performance industrial-grade MCU: collecting the current from circuit and processing it by MCU, the collected signal is displayed on the LED digital tube in real time. It is also very easy for users to modify the display parameters or calibration of the indicator through the keys. Besides, it is widely used for any occasion, whether in bright light and dark light conditions, it can clearly show the digital value.

## 2 Specifications

Power supply :4mA~20mA DC loop without extra power supply

Range:3mA~25mA

Limited range:<80mA

Accuracy:  $\pm 0.2\%$ FS

Display detail: 4 digits LED digital tube, red

Display range:-1999~9999

Voltage drop:  $\leq 3.8V$

Application Temp:  $-20^{\circ}C \sim 70^{\circ}C$

Limited Temp:  $-30^{\circ}C \sim 85^{\circ}C$

Storage Temp.:  $-40^{\circ}C \sim 85^{\circ}C$

Relative humidity:  $0\% \sim 85\%$

Thermal drift:  $\leq 80ppm/^{\circ}C$

Sampling rate: 3 times per second

Shock: 5g, 10Hz~200Hz

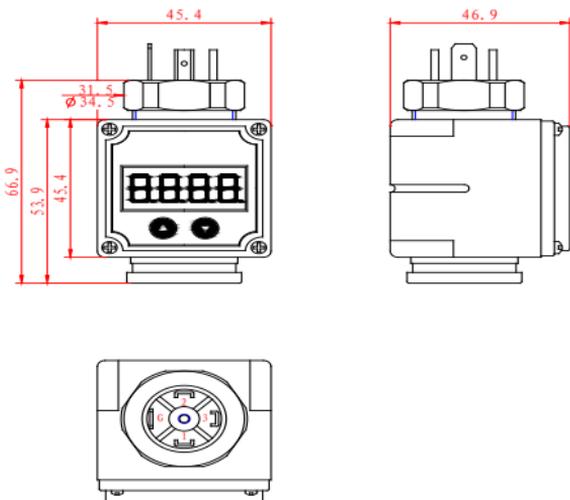
Impact: 50g, 11ms

Electrical connection: Plug connection

Housing: Plastic

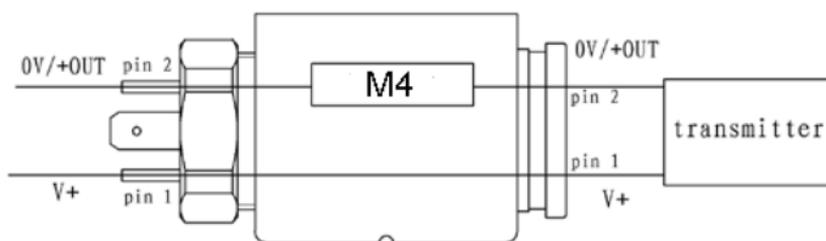
Weight:  $\sim 160g$

### 3 Outline Construction (Unit:mm)



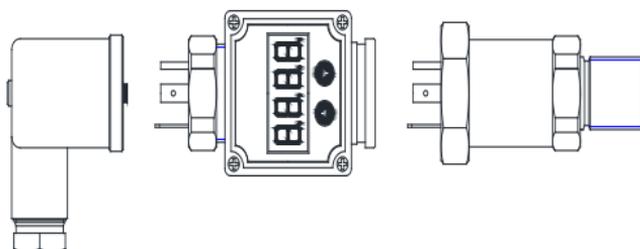
## 4 Electric Connection

Pin	Electric connection
1	V+
2	0V/+OUT
3	N/A
G	GND



## 5 Operation

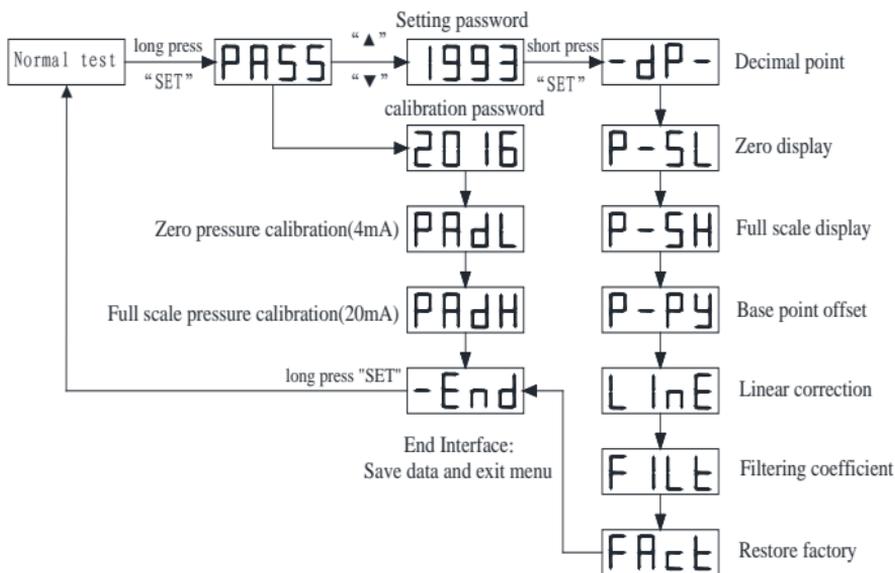
Connect M6 indicator to the transmitter and unscrew the plastic nut in the indicator top. Tighten the internal screw to the transmitter with a screwdriver, and then screw the plastic nut onto the indicator. Then connect the plastic outlet elbow(provided by users) to the cable, plug it in the indicator, and tighten the screw of the plastic outlet elbow.



## 6 Button menu instruction

There are two keys for setting, "▲""▼". Pressing "▲" + "▼" at the same time to achieve the "SET" function.

The key function diagram is as follows:



**Decimal point:** decimal point position can be changed if need;

**Zero display:** displayed value without pressure;

**FS display:** displayed value with FS pressure;

**Base point drift:** overall drifted value display;

**Linear correction:** correct the nonlinearity of the transmitter;

**Filtering coefficient:** used for word-jumping display caused by unstable

pressure or others in work site; the greater the value, the display will be more stable, but the accuracy will be reduced ;

**Restore factory:** used for fault operation or abnormal display, restore to factory settings;

**Zero calibration:** calibrate corresponding current value of zero pressure value;

Full scale calibration: calibrate corresponding current value of full span pressure value;

**END interface:** long press "SET" key to save and exit.

**Note 1:** In normal test state, short press "▲", display the current value, after 3s it will be back to the current display interface.

**Note 2:** In general, it is not advised to open the calibration interface as the product has been calibrated before out of factory.

## **7 Responsibility**

Within one year from the delivery date, we shall repair or replace the instrument with any quality fault caused by material parts or our manufacturing technique free of charge. For non-quality malfunction during user's operation, we are in charge of repair. But the material cost and the shuttle transportation fees should be borne by users.