# DP3-SVA Series Sensor Meter User Manual



# Features;

⊙Be applicable for sensors with linear output features or other equipments, such as measuring pressure, weight, temperature and humidity and so on.

• With Decimal point, Ratio, Measuring Range and Zero point setting function.  $\odot$ With transformed analog 4 $\sim$ 20mA output.

⊙Auxiliary power supply: +12V or +24V

# 1. Model

| Function        | DP3-SVA1A | DP3-SVA2A | DP3-SVA1B | DP3-SVA2B |
|-----------------|-----------|-----------|-----------|-----------|
| Analog output   | No        | Yes       | No        | Yes       |
| Auxiliary Power | DC 12V    | DC 12V    | DC 24V    | DC 24V    |

# 2. Technical Specification

| Measured function        | Equipped with different sensors   |  |  |  |  |
|--------------------------|---|--|--|--|--|
| Input mode               | Current: $4 \sim 20 \text{mA}(0 \sim 20 \text{mA})$ Voltage: $0 \sim 10 \text{V}$ ( $0 \sim 1 \text{V}, 1 \sim 5 \text{V}, 0 \sim 5 \text{V}, 0 \sim 200 \text{mV}$ ) |  |  |  |  |
| Accuracy                 | ±0.5%F.S±2Digit (23°C±5°C)  |  |  |  |  |
| A/D converter            | Dual Slope  |  |  |  |  |
| Sampling rate            | About 2.5 times / second  |  |  |  |  |
| Response speed           | About 4.5 times / second  |  |  |  |  |
| Max.Display              | Decial Ponit free setting 1999  |  |  |  |  |
| Display                  | Red LED high: 14.2mm  |  |  |  |  |
| Loading of analog output | ≤600Ω   |  |  |  |  |
| Power consumption        | ≤3.5VA  |  |  |  |  |
| Operating temperature    | 0°C~50°C  |  |  |  |  |
| Power supply             | AC 110V/220V 60/50Hz  |  |  |  |  |
| Outside dimension        | 48mm(H)×96mm(W)×100mm(L)  |  |  |  |  |
| Weight                   | 350g  |  |  |  |  |
| Insulation strength      | AC 1500V 1min   |  |  |  |  |
| Insulation impedance     | DC 500V $\geq$ 100M $\Omega$  |  |  |  |  |

# 3. Setting Function

While setting the range and the decimal point, be sure to pull out the internal printed circuit board, as the follow figure shows.



199.9 19.99 1.999 1999 

Figure 2

THE PIN HEAD OF DECIMAL POINT SETTING

THE PIN HEAD OF SCALE SETTING

1. Scale setting (Figure 1)

| Welding spot short circuit position | 20mA          | 10V   | 5V                  | 1V   | 200mV   |
|-------------------------------------|---------------|-------|---------------------|------|---------|
| Input Range                         | 4~20mA/0~20mA | 0~10V | $0\sim 5V/1\sim 5V$ | 0~1V | 0~200mV |

2. Decimal point setting (Figure 2)

While moving the jumper cap on different PIN head, you can get the position of the DP that you want.

Notes: The original setting range is 0~10V display 0~1999, Customers can adjust the range according to their detail requirement.

### 4. Display Adjusting

While setting the span and zero, please open the front lid. As the following figure shows.



1.SPAN ADJUSTMENT

Input a typical value, the display value can be increased, when forward adjust, the display value can be decreased while reverse adjust.

#### 2.ZERO ADJUSTMENT

Zero Adjustment Function: forward adjust is forward biased, reverse adjust is reverse biased.

Notes: After the adjustment of span value and scale setting, you need to check whether zero need to be resetteel. Zero adjustment must be in zero input or input shortcircuit or an adjustment signal. Fox example, inputting  $4 \sim 20$ mA, if you want to display zero, you must input 4mA in the terminal then adjust to zero. In order to diminish error, please adjust span and zero repeatedly.

#### 5. Terminal Connection







Input Terminal Connection

Output Terminal Connection

Notice: If there is any change, please refer to the connection on the Meter!!!

# 6. Size & Dimension



### 7. Cautions

- 1. Used in ambient temperature of  $0^{\circ}$ C to  $50^{\circ}$ C, humidity less than 85%R.H.
- 2. Input wire should not be too long, had better be shielded.
- 3. Operation and installation should be far away from the disturbant source.
- 4. Avoid using by violent vibrations or shock.
- 5. Avoid dust or corrosive chemical.

6.Store the meter in the shade place with temperature of  $-10^{\circ}$ C to  $70^{\circ}$ C, and humidity less than 60%. Don't contact with organic solvents or oils.