

A1A Amplifier

Manual



1. Introduction

Thank you for choosing the amplifier A1A. A1A is designed for converting mV signal from load cell output into a 4~20mA or 0~10V signal.

The manual here provides the installation, operation and calibration procedures of the product.

2. Installation

Only simple tools, a small size slotted screw driver, is required for connecting cables during installation and adjusting the unit during calibration, and a Philips head screw driver for the enclosure cover.

3. Connection Diagram

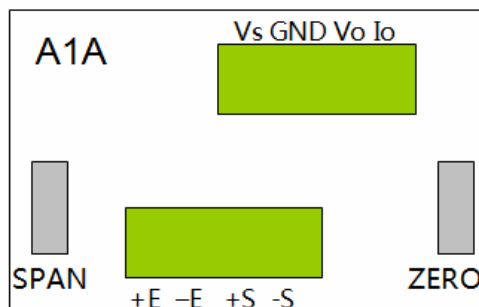


Fig1.Connection Diagram

From Amplifier to 24V DC Power and 0~10V/4~20mA output signal:

Vo:Output Voltage Signal 0~10V

Io: Output Current Signal 4~20mA

Vs: Input 24V DC Power

GND:Ground

From Load Cell to Amplifier:

+S:+Output mV Signal

-S:-Output mV Signal

+E:+Excitation

-E: -Excitation

4. Specification

Power Supply:24V DC $\pm 10\%$, <3W

Input Signal:0~30mV

Output Signal:0~10V/4~20mA

Operating Temperature: -10°C~40°C

Operating Humidity: $\leq 90\%$ R.H.

Maximum Input Voltage:30V DC

Maximum Output Current:40mA

Maximum Output Voltage:15V

5. Calibration

The calibration of A1A consists of Zero Calibration and Span Calibration.

5.1 Zero Calibration

Step1. Remove all load from the scale platform. If the scale require hooks or chains (tare weight), place the hooks or chains onto the scale for zero calibration.

Step2. Adjust **ZERO** variable resistor to an output of 0V or 4mA.

(Note: Tare weight shall not exceed 30% of full load)

5.2 Span Calibration

Step1. Place full load onto the scale.

Step2. Adjust **SPAN** variable resistor to an output of 10V or 20mA.

(Note: It's recommended to repeat adjustment in Step 2 of Section 5.2 above three times.)

6. Operation

6.1 Except during calibration, always keep the enclosure cover on and ensure the seal is in its proper place when installing the cover.

6.2 Always keep the amplifier clean from dirt to avoid affecting the values of the ZERO and SPAN variable resistors.

6.3 For stable amplifier signal output, always use safe and reliable DC power supply.

6.4 When output reading changes, re-calibrate the amplifier according to Section 5, Calibration.

7. Troubleshooting

7.1 No output from the amplifier: Check all wire connections and the DC power supply.

7.2 Output signal is abnormal: Re-calibrate according to Section 5, Calibration.

7.3 Problem cannot be resolved: Contact supplier