

ANYLOAD®

A1A

Load Cell Amplifier

Product Manual (V1611)



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TABLE OF CONTENTS

1. Introduction	2
2. Installation	2
3. Connection Diagram	2
4. Specifications	3
5. Calibration	3
• Zero Calibration	
• Span Calibration	
6. Operation	4
7. Troubleshooting	4

1. Introduction

Thank you for choosing Anyload A1A load cell amplifier. A1A strain gage amplifier provides load cell and transducer signal conditioning. It is designed for converting mV signal from load cell output into a 4~20mA or 0~10V signal. The A1A strain gage amplifier is DC powered and can drive up to 2 x 350Ω load cells or 4 X 700Ω load cells. It can be connected directly to 1 load cell or to several load cells through a junction box. The amplifier is housed in an aluminum casting enclosure and has 2 through holes for easy installation. This manual provides the installation, operation and calibration procedures of the product.

2. Installation

Only simple tools like small size slotted screw driver and Philips screwdriver are required for connecting cables during installation, adjusting the unit during calibration and installation of enclosure cover.

3. Connection Diagram

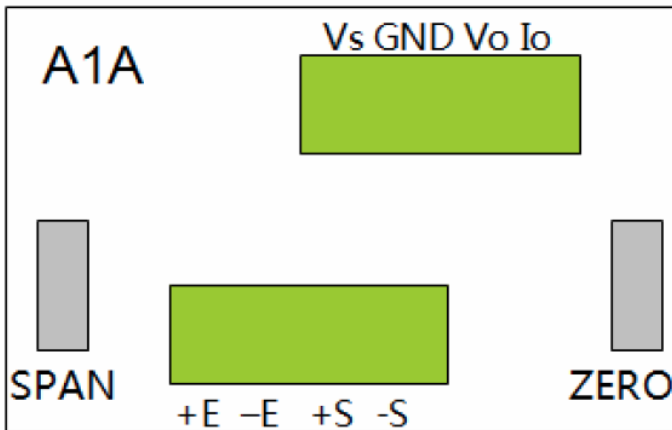


Fig1.Connection Diagram

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. Specifications

Power Supply: 24V DC $\pm 10\%$, <3W Maximum Input Voltage: 30V DC
Input Signal: 0~30mV Maximum Output Current: 40mA
Output Signal: 0~10V/4~20mA Maximum Output Voltage: 15V
Operating Temperature: -10°C~40°C
Operating Humidity : $\leq 90\%$ R.H.

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 into 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 into 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 properly fitted 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