A2P

Load Cell Amplifier

Product Manual (V1611)

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1. Introduction

Thank you for choosing Anyload A2P load cell amplifier. A2P 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 A2P strain gage amplifier is AC and DC powered and can drive up to 4 x 350Ω load cells or 8 X 700Ω load cells. It can be connected directly to 1 or 2 load cells or to more than 2 load cells through a junction box. The amplifier is equipped with individual adjustable resistors. It is housed in a PVC enclosure and can be installed on a standard rail channel. The manual here 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.

3. Connection Diagram

Red: EXC+
Black: EXC-
Green: SIG+
White: SIG-

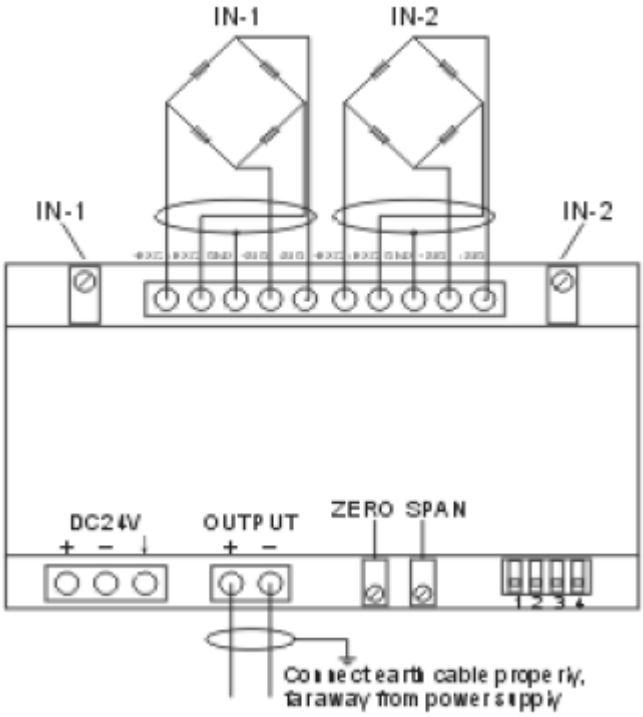


Fig1.Connection Diagram

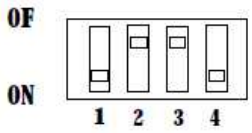
4. Specifications

Power Supply: 24V DC }10%,≥3W Maximum Input Voltage:30V DC
Input Signal: 0~30mV Maximum Output Current: 40mA
Output Signal: 4~20mA or 0~10V
Operating Temperature: -10°C~50°C
Operating Humidity:≤90%R.H.

5. Output Mode Switch

OUT:4~20mA
(Output Current)

1	2	3	4
ON	OFF	OFF	ON

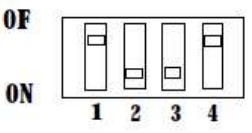


3=OF **Excitaton Voltage**
4=ON **to Load-cell 5V**

+E=5V

OUT:0~10V
(Output Voltage)

1	2	3	4
OFF	ON	ON	OFF



3=ON **Excitaton Voltage**
4=OF **to Load-cell 12V**

+E=12V

6. Calibration

The calibration of A2P consists of Zero Calibration and Span Calibration:

6.1 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)

6.2 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 6.2 above three times.)

7. Operation

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

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

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

7.4 When output reading changes, re-calibrate the amplifier according to Section 6, Calibration.

8. Troubleshooting

8.1 No output from the amplifier: Check all wire connections and the DC power supply.
8.2 Output signal is abnormal: Re-calibrate according to Section 5, Calibration.
8.3 Problem cannot be resolved: Contact supplier