

ANYLOAD[®]

A1A-22B

Analog Amplifier



OPERATION MANUAL

Version 24A

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I. ABOUT THIS MANUAL

Thank you for choosing Anyload A1A-22B Analog amplifier for your various applications. This amplifier has been designed to amplify the analog signal coming from a single load cell or multiple load cells summing through a junction box. This manual provides the connection, calibration, etc. of the A1A-22B amplifier in a weighing system. This manual is intended to be used by trained service technicians and installers. It is recommended to review this manual in detail before installing, operating, or configuring the instrument. For further information please contact Anyload or your authorized dealer.

II. DISCLAIMER

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III. SAFETY

General safety

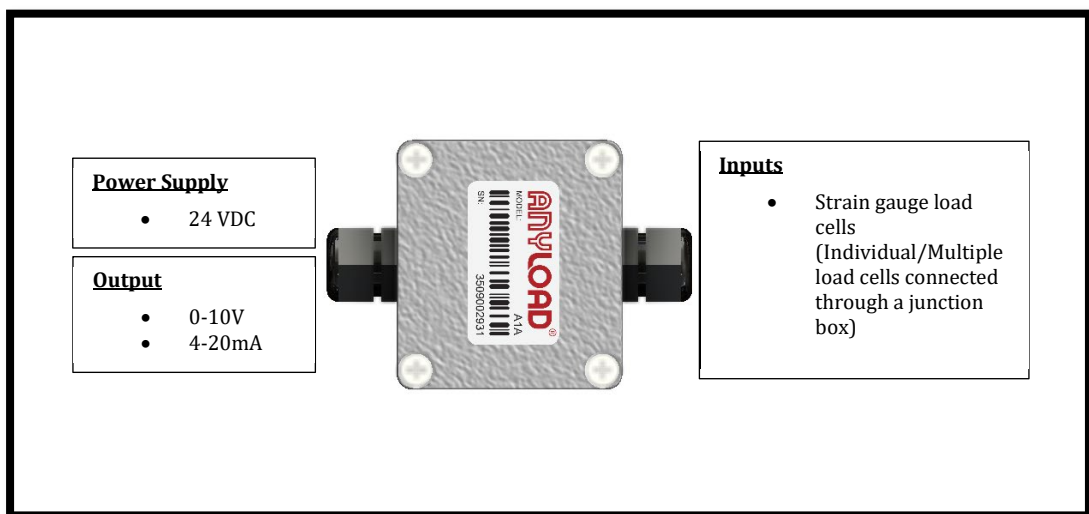
Standard safety practices are required before conducting any installation, maintenance, or procedure on device. It is recommended to read and understand the instructions and warnings in this manual before performing any procedure on device. Failure to follow the instructions and warnings could result in injury or death.

Definition of the safety symbols is described in table below.

Symbol	Description
	<p>WARNING!</p> <p>Indicates a potentially hazardous situation which may result in serious injury or death Indicates a potentially dangerous procedure which may cause injury or death</p>
	<p>CAUTION!</p> <p>Indicates a potentially wrong procedure which may result in damage to device Indicates a potentially wrong procedure which may result in loss of warranty</p>
	<p>NOTICE!</p> <p>Indicates a procedure which may need more instructions Indicates a procedure which has more information available</p>

1. INTRODUCTION

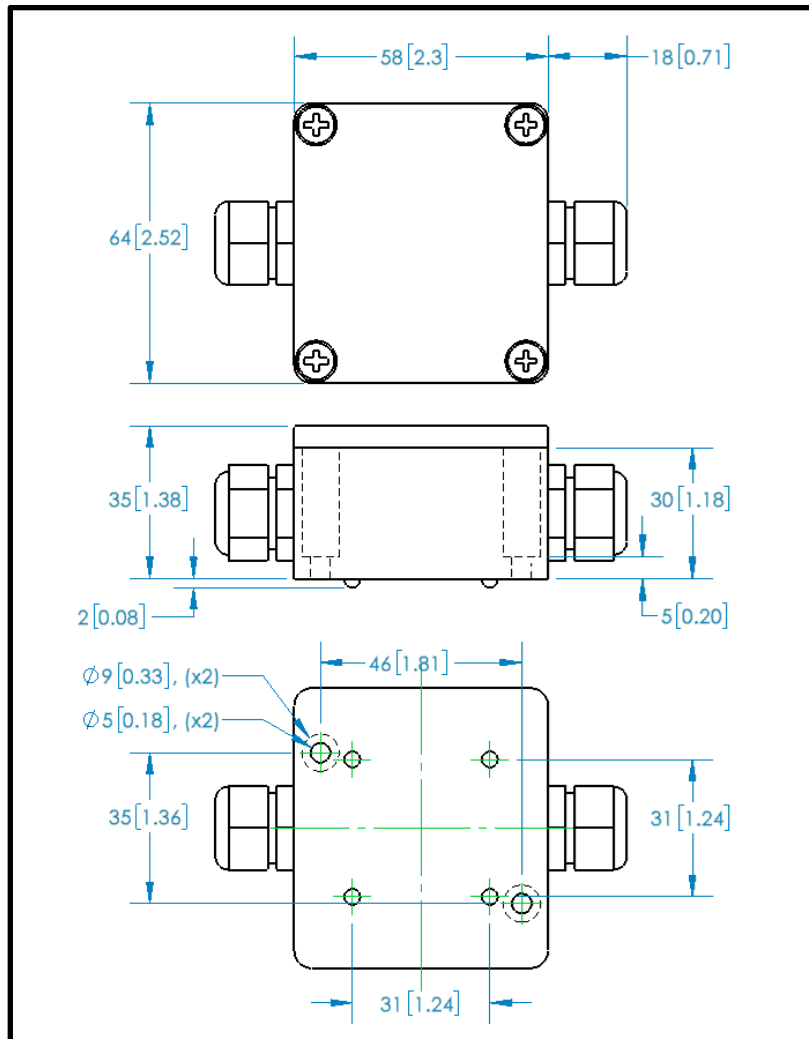
ANYLOAD A1A-22B analog amplifier is a universal and high-performance signal conditioner that can be used for various strain-gauge base sensor applications including load cells, force sensors, and pressure sensors. It is universal as it can amplify/convert the mV signal to both voltage and current output. The A1A-22B strain gage amplifier is a DC-powered amplifier that can drive one load cell connected directly or several load cells up to 4 x 350Ω load cells or 8 X 700Ω load cells through a junction box. Housed in a casted and powder coated aluminum enclosure with rubber sealing rated to IP66. This amplifier enclosure has been designed with two through holes for easy installation and for a wide signal output range of 0-10V or 4-20mA. The A1A-22B amplifier is equipped with compatibility with most common industrial analogue input data converter models such as I/O Link of Balluff.



2. SPECIFICATIONS

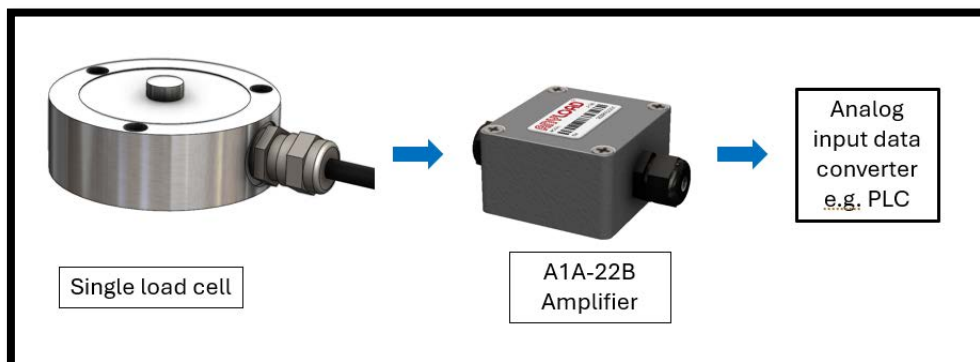
Model	A1A - 22B	
Power Supply	VDC	24±10%
Input Range	mV	0 - 30
Output Signal	V	0 - 10
	mA	4 - 20
Max. Output Current	mA	40
Max. Input Offset Voltage	μV	50
Max. Input Offset Drift	μV/°C	0.6
Min. Common-mode Rejection Ratio (G=10)	dB	100
Nominal Temperature Range	°C (°F)	-10 to +40 (+14 to +104)
Seal Type	IP66	
Enclosure material	Cast Aluminium	
Weight of the Item	kg/lb	0.17 0.37

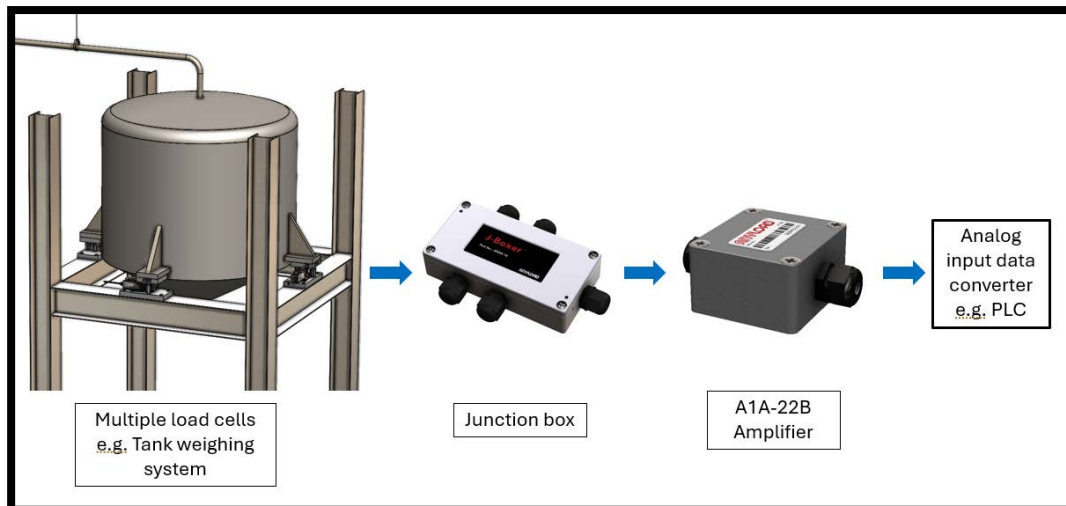
3. DIMENSIONS



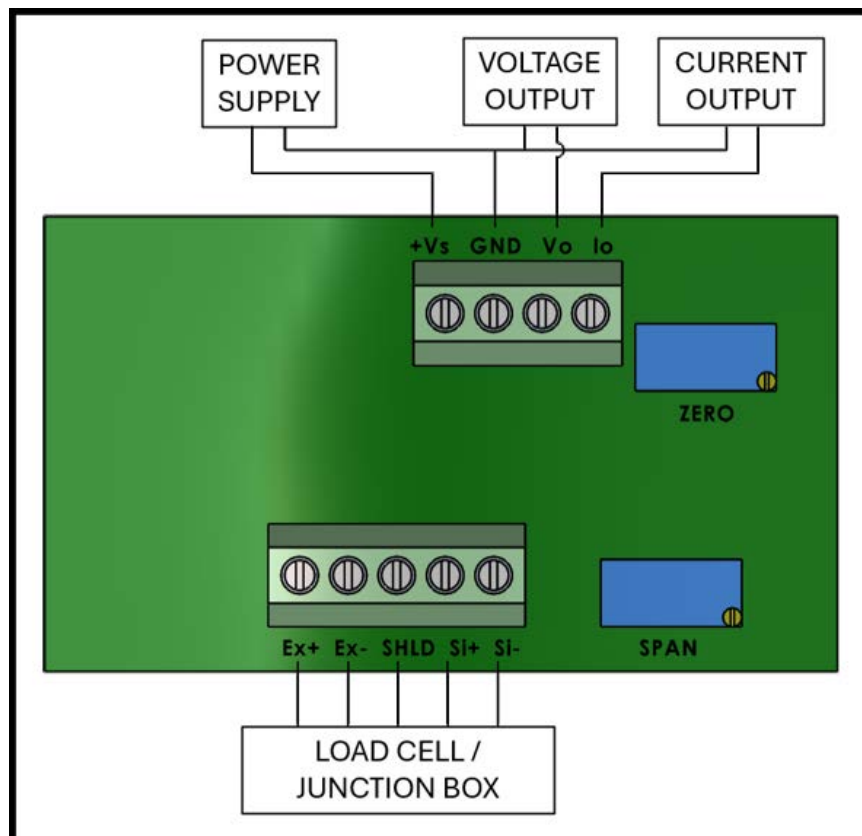
4. CONNECTION

A1A-22B amplifier can be connected to a single load cell or multiple load cells connected through a junction box.





Connect the load cell/junction box, power supply and the analogue data input devices to the amplifier board as per below schematic diagram.



5. CALIBRATION

The A1A - 22B consists of two calibration set points as zero and span calibration. Calibration is conducted by adjusting the potentiometers (variable resistors) using a flat screwdriver.

5.1. Zero Calibration

Step 1: Clear the scale/platform to make sure there is nothing weight being applied on the scale/ weighing system. If the scale requires hooks or chains (tare weight), place them onto the scale for zero calibration.

Step 2: Adjust ZERO potentiometer to an output of 0V or 4mA.

5.2. Span Calibration

Step1: Apply the desired full load onto the scale/platform.

Step2: Adjust SPAN potentiometer to an output of 10V or 20mA.

Note: Anyload recommends repeating the calibration three times zero and span to ensure the most accurate calibration.

6. OPERATING PRECAUTIONS

6.1 Always keep the enclosure cover closed except for the period of the calibration and make sure the rubber seal is properly in place.

6.2 Always keep the amplifier clean of debris or dust to avoid affecting the values of the ZERO and SPAN potentiometers.

6.3 Always use safe and reliable DC power supply for a stable output reading.

6.4 Recalibrate the amplifier according to Section 5 as and when required or noticed any change on output.

7. TROUBLESHOOTING

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

7.2 **Output signal is abnormal:** Recalibrate according to Section 5.

7.3 **Problem cannot be resolved:** Please contact Anyload customer support or authorised dealer.

Please Contact our Authorized Dealer for Technical Assistance:

Anyload Weigh & Measure Inc.

North America Toll Free: 1-855-ANYLOAD (269-5623)

Email: info@anyload.com

www.anyload.com

Address

6855 Antrim Avenue
Burnaby, British Columbia
Canada
V5J 4M5

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