Walfront PSD-S1

Walfront Portable S Type Beam Load Cell Scale Sensor 50KG

Model: PSD-S1 | Brand: Walfront

INTRODUCTION

This instruction manual provides essential information for the proper setup, operation, and maintenance of your Walfront PSD-S1 Portable S Type Beam Load Cell Scale Sensor. Designed for high-precision weighing, this 50KG capacity sensor is suitable for various industrial applications requiring accurate measurement of weight, pressure, or tension.

PRODUCT FEATURES

- **High Precision:** Provides accurate weight measurement to ensure objects are weighed with utmost precision.

- **Versatile Range:** This specific model has a 50KG load range, suitable for various weighing needs including weight weighing or pressure tension weighing.

- **Durable Construction:** Designed for long-term use, withstanding high pressure and tension without compromising precision. Assures durability and longevity.

- **Portable:** Compact in size and light in weight, making it easy to transport and store.

- **Easy to Use:** Designed with practicality in mind, featuring easy interfaces for accurate results.

SPECIFICATIONS

Specification	Value
Model	PSD-S1
Material	Metal
Type	Weighting
Process	Film

Specification	Value
Output	Analog
Protection Grade	IP67
Linearity	±0.02%F.S.
Delaying	±0.02%F.S.
Repeatability	±0.02%F.S.
Sensitivity	2.0mv/v
Drifting	±0.02%F.S
Input Impedance	350±10Ω
Output Impedance	350±5Ω
Measuring Range	50kg
Product Dimensions	10 x 4 x 4 cm
Item Weight	520 g
Manufacturer Model Number	Walfront2oska6i7ev-01
Country of Origin	China

SETUP AND INSTALLATION

The Walfront PSD-S1 load cell is designed for straightforward installation. Ensure the mounting surface is stable and capable of supporting the maximum load capacity.

Physical Installation

Mount the S-type load cell securely using appropriate fasteners through the designated holes. Ensure the load is applied correctly to the sensor, either in tension or compression, as intended for your application.

Close-up view of the Walfront PSD-S1 S-type load cell, highlighting its compact design and mounting points. This sensor is rated for a 50kg capacity.

Wire Connecting Method

Connect the load cell to your weighing indicator or data acquisition system using the following wire color codes:

- **Input (+):** Red wire
- **Input (-):** Black wire
- **Output (+):** Green wire
- **Output (-):** White wire
- **Ground (GND):** Yellow wire

Image showing the Walfront PSD-S1 load cell with its wiring. The wires are color-coded for easy identification: Red (+Input), Black (-Input), Green (+Output), White (-Output), and Yellow (Ground).

OPERATING INSTRUCTIONS

The Walfront PSD-S1 load cell is designed for use in various industrial environments, including mixing stations, batching machines, and asphalt stations. To ensure accurate measurements, proper calibration is essential before initial use and periodically thereafter.

The sensor provides an analog output signal (2.0mv/v) that changes proportionally with the applied load. This signal must be connected to a compatible weighing indicator, amplifier, or microcontroller (e.g., with an HX711 ADC) for signal conditioning, conversion, and display.

Calibration

Refer to the instructions provided with your specific weighing indicator or data acquisition system for the calibration procedure. Typically, this involves applying known weights to the load cell and adjusting the system to read these values accurately.

Video demonstrating the Walfront S-type load cell in a general application setting.

Video showcasing the features and potential uses of the Walfront load cell sensor.

MAINTENANCE

The Walfront PSD-S1 load cell features an IP67 protection grade, making it oil-proof, waterproof, and anti-corrosion. This robust design allows for reliable operation in challenging and potentially hazardous environments.

Image illustrating the oil-proof, waterproof, and anti-corrosion properties of the Walfront PSD-S1 load cell, ensuring durability in harsh environments.

To maintain optimal performance and extend the lifespan of your load cell:

- **Regular Inspection:** Periodically inspect the sensor for any signs of physical damage, corrosion, or wear on the cable.
- **Cleaning:** Keep the sensor clean and free from debris, dust, or excessive moisture. Use a soft, damp cloth for cleaning if necessary. Avoid harsh chemicals.
- **Environmental Protection:** While the sensor is IP67 rated, avoid prolonged exposure to extreme conditions beyond its specified operating parameters.

TROUBLESHOOTING

If you encounter issues with your Walfront PSD-S1 load cell, consider the following troubleshooting steps:

- **No Output or Incorrect Readings:**
  - Verify all wire connections according to the 'Wire Connecting Method' section. Ensure correct polarity for input and output.
  - Check for proper power supply to the load cell and any connected indicator/amplifier.
  - Perform a calibration procedure. Load cells often require calibration with known weights to ensure accuracy.
  - Inspect the load cell for any physical damage or deformation that might affect its performance.

- **Inconsistent Readings:**
  - Ensure the load is applied evenly and within the specified measuring range (50kg for this model).
  - Check for environmental factors such as vibrations or temperature fluctuations that could affect readings.
  - Verify the stability of the mounting structure.

WARRANTY AND SUPPORT

For technical support, warranty information, or service inquiries regarding your Walfront PSD-S1 load cell, please contact Walfront customer service.

Refer to the product label for specific contact details. A phone number visible on the product label is 4008639919. Please retain your purchase receipt as proof of purchase for any warranty claims.