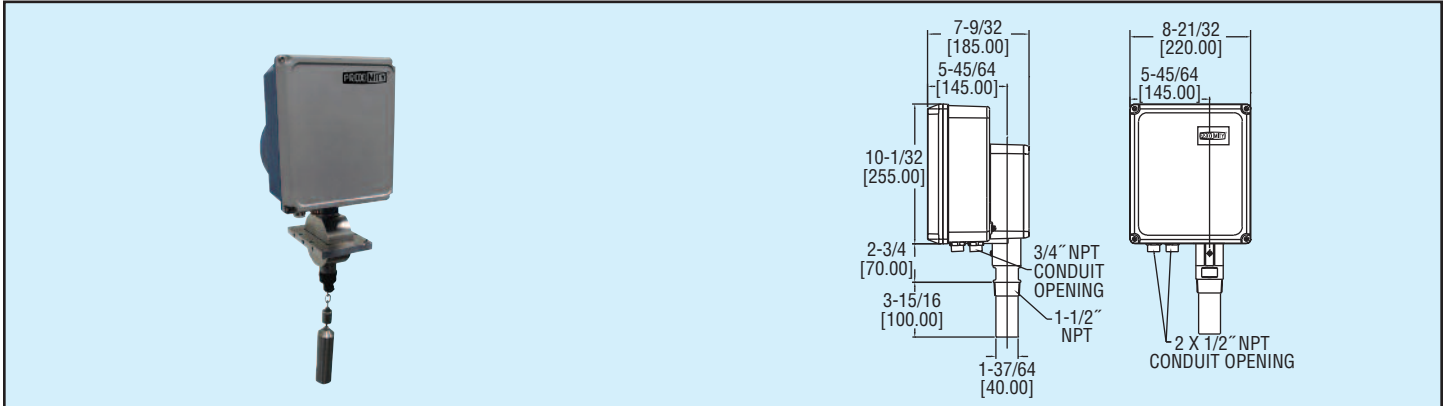




Series  
DBOB

# Continuous Level Measuring System

Simple Installation, Tangle Free Tape-Based System



The Series DBOB is a low maintenance, electromechanical device designed for the continuous measurement of level or volumes in silos, tanks, or hoppers. The DBOB utilizes an internal motor that drives a weight suspended by a firm stainless steel tape down to the bulk material level. Upon reaching the material, the unit reverses and the weight is drawn back into the upper stop position. The distance the weight descends is electronically measured based on the internal rotations of the unwinding tape. The DBOB is user-programmable to output either a height signal or a volumetric signal based on the vessel geometry. The unit's two programmable relays offer even more customization.

The 1-1/2" NPT process connection allows for simple installation on horizontal surfaces and an optional aiming flange is available for inclines. The integrated tape cleaner keeps the internal process protected from difficult material and the tough cast housing protects the unit from its surroundings. With an easy to understand measurement principle and inherent low maintenance qualities, the Series DBOB is perfect for your level measuring needs.

### FEATURES

- Measurement range up to 100 ft (30 m)
- Optional aiming flange for versatile mounting
- Accurate measurement
- Independent of bulk material properties
- Tangle free tape-based system

Model	Description
DBOB-1-1	Continuous level measuring system, 115 VAC power supply

### ACCESSORIES

- DBOB-AF, Aiming Flange
- DBOB-PC, Weather Protection Cover<sup>®</sup>
- DBOB-W1, PVC Weight
- DBOB-W2, PVC Weight with Pin
- DBOB-W3, SS Weight
- DBOB-W4, SS Weight with Pin
- DBOB-W5, SS Spider Weight

### SPECIFICATIONS

**Service:** Powder and bulk materials compatible with wetted materials.

#### Wetted Materials:

- Mounting Thread: Aluminum;
- Aiming flange: Aluminum and 304 SS;
- Tape: 301 SS;
- Sensor weight: PVC or 303 SS;
- Fixing elements between tape and sensor weight: Aluminum and 303 SS.

**Other Material:** Housing: Powder-coated aluminum.

#### Temperature Limits:

- Process temperature: -40 to 176°F (-40 to 80°C);
- Ambient temperature: -4 to 140°F (-20 to 60°C)
- (Relative humidity: 0 to 100%).

**Pressure Limit:** -3.0 to 3.0 psi (-0.2 to 0.2 bar).

**Enclosure Rating:** NEMA 4 (IP66).

**Electrical Rating:** 2 A @ 250 VAC.

**Power Requirements:** 115 VAC, 50/60 Hz.

**Output Signal:** 4 to 20 mA.

**Accuracy of Output Requirement:** 1% of measured length.

**Power Consumption:** AC model: 150 VA.

**Electrical Connection:** One 3/4" NPT and two 1/2" NPT conduit opening, screw termination with removable terminal block.

**Connection Terminals:** AWG 26 to 14 (0.14 to 2.5 mm<sup>2</sup>).

**Process Connection:** 1-1/2" male NPT.

**Mounting Orientation:** Vertical.

**Deviation of Vertical Mounting:** Max. 2°.

**Set Point Adjustment:** Trips when weight reaches product.

**Sensitivity:** Min. powder density: 18 lb/ft<sup>3</sup> (300 g/l).

**Measuring Range:** 100 ft (30 m).

**Measuring Speed:** Average 0.6 ft/sec (0.2 m/s).

**Maximum Permitted Tractive Force:** 180 lbf (800 N).

**Maximum Altitude:** 6562 ft (2000 m) for CE approval.

**Display:** LCD.

**Indication Light:** LED: Power on, relay, failure.

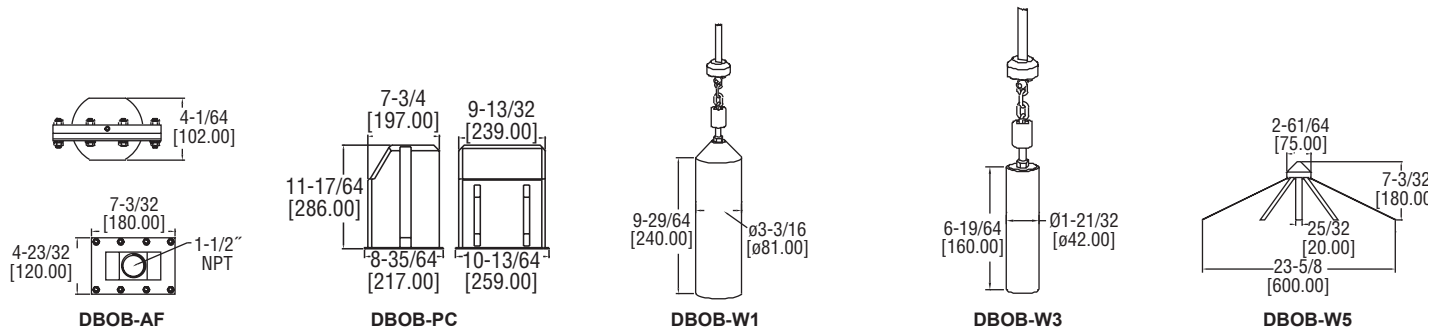
**Memory:** Non-volatile: >10 years data retention (no backup battery required).

**Weight:** 20 lb (9 kg).

**Approvals:** CE, FM Class. II, III Div. 1 Gr. E-G.

LEVEL

Level Transmitter,  
Mechanical



ⓘ **Warning:** Do not use the DBOB-PC Weather Protection Cover in hazardous locations.