

Level gauge distribution box



Overview

Choose from our selection of level gauges, including liquid-level indicators, liquid-level gauges, and more. Same and Next Day Delivery.

Key Takeaways

A level gauge distribution box is an electrical enclosure that consolidates signals from multiple level sensors or transmitters, enabling centralized monitoring, signal conditioning, and safe distribution to control systems.

Function and Purpose

A level gauge distribution box serves as a central hub for connecting multiple level measurement devices, such as magnetic level gauges, radar level transmitters, or ultrasonic sensors, to a control or automation system. It allows for:

- Signal consolidation: Combines outputs from several level sensors into a single interface for process control systems.
- Signal conditioning: Provides amplification, filtering, or conversion of analog signals (e.g., 4–20 mA) to ensure accurate readings.

Safety and isolation: Protects sensitive electronics from high voltages, surges, or hazardous process conditions. Ease of maintenance: Simplifies wiring and troubleshooting by centralizing connections in one accessible location. Integration with Level Measurement Systems: Level transmitters and sensors, such as radar, guided-wave radar, ultrasonic, or magnetic level gauges, continuously measure liquid or solid levels in tanks, vessels, or silos and output signals to the distribution box.

The distribution box then routes these signals to: PLC or DCS systems for process automation and control. Alarm and safety systems for high/low level detection. Remote monitoring systems, including wireless or multi-tank hubs, for centralized data collection.

For example, Emerson's Versatile Tank Hub or ABB's LMT series transmitters can interface with multiple sensors, and a distribution box can facilitate signal routing and redundancy, ensuring reliable operation even in harsh industrial environments.

Applications

Level gauge distribution boxes are widely used in industries such as: Oil and gas: Monitoring separator, compressor, and storage tank levels. Chemical and petrochemical: Handling corrosive or high-temperature liquids. Power generation: Managing boiler and feedwater levels.

Water and wastewater treatment: Controlling tank and reservoir levels. By centralizing connections, the distribution box improves operational efficiency, safety, and maintenance while supporting accurate and reliable level measurement across multiple points in a facility.

Key Considerations

When selecting or designing a level gauge distribution box, consider: Number of channels: Ensure it can accommodate all connected sensors. Signal type compatibility: Analog (4–20 mA), digital (HART, IO-Link), or wireless. Environmental protection: IP rating for dust, moisture, or corrosive conditions.

Explosion-proof or intrinsically safe design for hazardous areas. Ease of integration with existing control systems and remote monitoring solutions. In summary, a level gauge distribution box is a critical component in industrial level measurement systems, providing centralized signal management, safety, and integration for multiple level sensors or transmitters.

It ensures accurate, reliable, and maintainable monitoring of liquid and solid levels across complex processes.

Article Content

Level Gauges | McMaster-Carr

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Level measurement products

As a manufacturer of level products based on various measuring methods, we are happy to support you in this search with our expertise. The choice of level

Level Transmitters

When you need to automate level measurements economically, and in locations that are remote or hard to get to, Rosemount Wireless Level Transmitters provide the solution.

Home | KENCO

KENCO's Oil Level Controllers are the standard device worldwide for measuring and controlling the amount of lube oil consumed in stationary engines and compressors.

Level measurement

Level sensors and transmitters for continuous level measurement and point level detection as well as density and interface measurement in liquids and bulk solids.

Amazon : Digital Level Box

Contains at least 50% recycled material. Global Recycled Standard (GRS) certified products contain recycled content that has been independently verified at each stage of the supply chain, from the

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This comprehensive product offering enables us to provide our customers with the best continuous level or point level switch solutions for any application.. om the most basic to the most complex.

Glass level gauges Model LGG

The main element of the glass level gauge is the gauge body. Incorporated into this gauge body are the liquid channel (if necessary the heating channel) and the seating faces for the chambered seals and

Level measurement with level sensors

In continuous level measurement, the level of a medium in a tank or silo is detected and converted into an electronic signal. The level signal can be displayed in the

Installing a Septic Distribution Box: D-Box Setup | Onsite Installer

Step-by-step guidance for installing a septic distribution box, including septic tank distribution box layout, outlet leveling, and common D-box mistakes.

Liquid Level Indicators for distribution transformers

Oil Level Indicators, Round dial Type, with magnetic coupling - Sizes 80 and 100mm size - Customised dial - Adjustable float arm - Suitable for conservator and side

Can someone explain to me the normal behavior of the water level in

Can someone explain to me the normal behavior of the water level in a septic system distribution box? Gravity septic system that is 43 years old. Had it pumped every 5 years. 4-bed house with two

What Is a Distribution Box?

What to Look for When Choosing a Distribution Box If you're going to buy a distribution box, there are several things you should look for. You should choose a distribution box that's made of

Septic Tank Distribution: All You Need to Know about

1. What is a Distribution Box? A Distribution Box (D-Box) is a component of a septic system that collects wastewater from the septic tank and

Types of Level Gauges | Working Principle of Level Gauge

Level gauge is a device which is used to show the level of fluids in fields. Level gauge is a direct method for measuring the level.

Septic Tanks, Distribution Boxes, and Chamber Leaching Systems Approved ...

Distribution boxes are typically made of polyethylene or reinforced concrete with plumbing "knock outs" into the box. The inlet must be higher than the outlets, with all outlets at the same level. The box

How to Inspect and Maintain a Septic System Distribution Box

The septic system's distribution box, often called the D-box, is a small but important component of the wastewater management infrastructure. Typically constructed from concrete or plastic, the D-box

Altitude and Level Control Valves

Altitude & Level Control Valves Cla-Val manufactures several different types of level control valves. Non-modulating float valves open fully when the liquid level in a

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