Laser level transmitter LLT100

Basic Information

Brand Name: ABBModel Number: LLT100



Product Specification

Customized Support: OEM

Mounting Bracket: 316 Stainless SteelSupply Voltage Effect: 0.005% Span Per Volt

• Output Signal: 4~20mA

Measurement Range: 0.1...0..100MPA

Power Supply: 24VDC
 Operating Temperature: 40~85
 Electrical Output Signal: DC 0 ... 10

• Highlight: oem abb pressure transmitter,

20ma abb pressure transmitter, oem absolute pressure transmitter



More Images



Product Description

The LLT100 is a high performance laser transmitter that accurately measures level, distance and position over short and long ranges. It is a non-contact, level measuring instrument designed for industrial applications and harsh environments.

Overview

The LLT100 is specifically made for industrial applications and harsh environments. It provides continuous, non-contact level measurement capabilities for process automation and inventory management in industries such as mining, aggregates, oil and gas, chemicals, food and beverages, power, pulp and paper, pharma, and water and waste water.

Low cost of ownership

- No maintenance
- No calibration necessary
- Versatile level transmitter

Reliable

- Precise measurement of any solid or liquid surface
- Dust and fog penetration capabilities
- Explosion proof class 1 / division 1 (zone 1)

Convenient

- Fast and flexible installation
- Easy setup function
- 2 wire powered and HART communication

Accessories

Dust tube

- Avoids dirt or splashing liquids on the window

Cooling tube

- Increases max. process temperature to 280°C/535°F

Heated window

- Prevents condensation on window (requires 4 wire power)

Integral Through-the-Glass user interface

- Configuration directly on the unit

Rotating bracket

- Ideal for aiming the LLT100 laser beam

Swivel flange

- Provides precise aiming of the LLT100 laser beam. Especially useful in liquid applications

Laser pointer tool

- Used to provide a visual reference when aligning LLT100

Process flanges

Universal flange (aluminum or stainless steel)

- Flange bolt pattern fits both 2 in. ASME150 and DN50 PN 16
- Maximum pressure: 2 bar (29 psi)
- Hazarous area class 1 / division 1 (zone 1)

High pressure

- 2 in. class 150 flange
- -2 in. class 300 flange
- DN50 PN16 flange
- DN50 PN40 flange
- Hazardous area class 1 / division 1 (zone 1)
- Can be used to form a barrier to zone 0

Hygienic interface







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Measurement

Range

0.5 to 30 m (2 to 100 ft) for liquids

 $0.5\ to\ 100\ m$ (2 to 330 ft) for solids

0.5 m to 200 m (2 ft to 660 ft) for positioning applications with reflective target

Resolution

5 mm (0.2 in)

Typical accuracy

±11 mm (0.4 in)

Measuring beam

Laser wave length: 905 nm, eye safe, Class 1

Laser beam divergence

< 0.35°

Environmental conditions

Operating temperature

 -40° to +60°C (–40 to +140°F), up to 280°C (535°F) with cooling tube

Storage temperature

 $-40 \text{ to } +85^{\circ}\text{C} \text{ (-40 to } +185^{\circ}\text{F)}$

Survival temperature

-40°C to +80°C (-40°F to +175°F)

Process pressure

- Base model: -1 to +2 bar (29 psi)
- Hygienic model: -1 to +1 bar (15 psi)
- Pressure-rated model: -1 to +49.6 bar (719 psi), depending on flange

Output

Analog

4 to 20 mA, NAMUR compliant

Digital

HART 7 (multi-variable output)

Communication

Local HMI, EDD/DTM, handheld

Power supply

Powered from the loop 4 to 20 mA, 16 to 42 V DC Heated lens option 24 V DC (3W)

Mechanical

Enclosure material

Powder coated aluminum (standard), 316L stainless steel (option)

Dimensions

- Universal - flat flange W 247 x H 215 x D 165 mm (9.7 x 8.5 x

6.5 in.)

- Class 150 - raised flange W 240 x H 242 x D 154 mm (9.5 x 9.5 x 6.1 in.)

- Class 300 - raised flange W 247 x H 242 x D 165 mm (9.7 x 9.5 x 6.5 in.)

- DIN PN 16 - raised flange W 247 x H 242 x D 165 mm (9.7 in x 9.5 x 6.5 in.)

- DIN PN 40 - raised flange W 247 x H 242 mm x D 165 (9.7 x 9.5 x 6.5 in.)

- Hygienic flange W 223 x H 215 x D 137 mm (8.8 x 8.5 x 5.4

Weight of standard model

- Aluminum enclosure with universal aluminum flange: 3.7 kg $\left(8.2\ \text{lb}\right)$
- $-\,316L$ SST enclosure with universal stainless steel flange: 8.6 kg (19.0 lb)

Weight of pressure rated model

- Aluminum enclosure: 6.7 to 7.2 kg (14.8 to 15.9 lb),

depending on flange

 $-\,316L$ SST enclosure: 10.0 to 10.5 kg (22.1 to 23.2 lb),

depending on flange

Weight of hygienic model

- Aluminum enclosure: 5.8 kg (12.8 lb)
- 316L SST enclosure: 9.1 kg (20.1 lb)

Protection class

IP66 / IP67/ Nema 4 (SS version 4X)

Process fitting

- Flange (ASME 2", DN50)
- Hygienic fitting / tri-clamp 4 in. (ISO2852)

Wetted parts

- Aluminum, cemented borosilicate window (base model)
- 316L SST, cemented borosilicate window (base model, hygienic model)
- 316L SST, fused borosilicate window (high pressure models)

Operation

Display

- Integrated 128x64 pixels LCD display with TTG (Through-

The-Glass) interface

Software features

 Volume computation, damping, filtering, thresholds/alarms, user-defined display(with HMI)

Approvals CE, ATEX, IECEx, FM, 3A

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