

Model ILT-6000 (Patented)

Magnetostrictive Level Transmitter

Direct Insertion for Tanks or Vessels



Description

Jogler's ILT-6000 series level transmitter is the latest in magnetostrictive level sensing technology designed for direct tank insertion. The ILT-6000 contains a low profile waveguide that is inserted into an isolation well and float assembly. The waveguide sleeve isolates the internal waveguide from the process environment and protects it from excessive process conditions. This provides an additional safety barrier for the operator. The major benefit is the transmitter and waveguide can be removed for field checking without interruption or exposure to the process environment. The isolation well and float are available in a variety of materials including 316 SS, CPVC, Alloy 20, Titanium, Hastelloy, PP or PVDF.

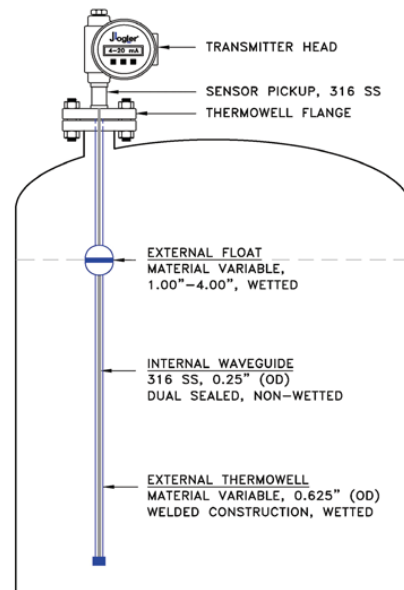
Technology

The **ILT-6000** operates based on the magnetostrictive principle. The transmitter sends fixed interval current pulses (start pulse) down the length of the sensing wire, creating an electromagnetic field. When this electromagnetic field is interrupted by the magnetic field of the float, magnetostriction occurs. A constant-velocity torsional stress wave propagates along the length of the sensing wire from the position of the magnetic float. The piezoceramic sensing element converts the torsional stress to an electrical pulse (end pulse). The transmitter electronics measures the time interval between start and end pulses and uses this time to calculate the float position.



Standard Features

- 24 VDC nominal, two wire, loop powered
- LCD display in 4-20 mA, in, cm and/or percent
- HART protocol field communication
- Local programmability allows for easy parameter changes
- Quick-Cal function for simple recalibration to any span
- Non-wetted 316 SS waveguide & sensor
- All welded isolation well and float assembly, material variable
- Accuracy of 0.01% of total span from enhanced sensitivity
- State of the art sensor and transmitter electronics
- Connection sizes from 2.00 to 6.00 inches
- Maximum transmitter length of 20 feet
- Full Vacuum to 725 PSIG @ 100 F. (ANSI/ASME 300 lb)
- Explosion proof housing, NEMA Type 4X
- Class I, Division 1, Groups B, C, D
- Class II, Division 1, Groups E, F, G, Class III



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Bypass Chamber & Transmitter Combination



Specifications:

Performance

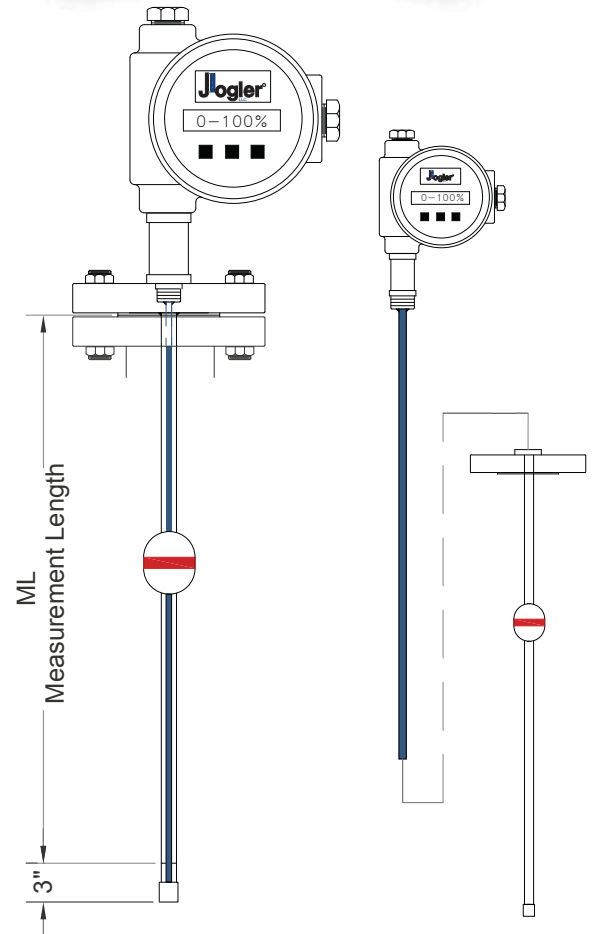
- Accuracy: ± 0.015 inches ($\pm 0.01\%$)
- Repeatability: 0.001% of full span
- Linearity: 0.020% of full span
- Refresh Rate: 10x per second
- Initiation: 0.00 seconds
- Minimum Density: 0.37 gm/cm^3
- Damping: 0.00 to 1.00 @ 0.01 sec.
1.00 to 25.0 @ 1.00 sec.
- Upper Unmeasurable Length: 3.00 inch
- Lower Unmeasurable Length: 3.00 inch

Electrical

- Input: 12-30 VDC (24 VDC nominal)
- Output: 4-20 mA, percent, and/or height
- Resistance: 600 Ohms (max) @ 24 VDC
- Power: 0.66 watts (30VDC x 0.022 amps)
- Error Signal: 3.60 mA (low) or 22.0 mA (high)
- Interface: 3 button keypad
- Software: HART or PACT
- Display: 2 line, 8 character LCD
- Connection: 0.75 inch FNPT (Conduit)

Ratings

- MAWP @ MAWT: 515 PSIG @ 400° F. (ANSI 300)
- Ambient Temp: -40° to +160° F. (-40° to +71° C)
- Process Temp: -40° to +230° F. (-40° to +110° C); (Standard)
Options to 400° F (204° C)
- Area Rating: Class I, Division 1, Groups B, C, D
Class II, Division 1, Groups E, F, G; Class III
- Enclosure: NEMA Type 4X



Ordering Information

Model Number: ILT-6000-Probe Length (inches or mm)

Order Isolation well separately. See Isolation well configuration guide for details.

