

Magnetostrictive Level Transmitter

Model: ILT-6000-BC (Patented)
Bypass Chamber & Transmitter Combination



Description

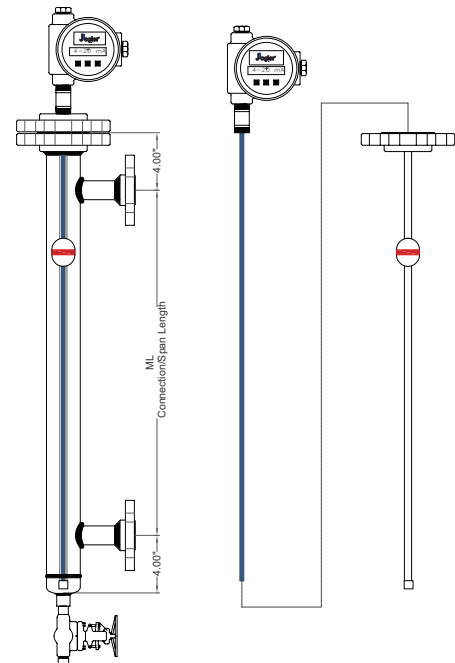
Jogler's ILT-6000-BC series level transmitter is the latest in magnetostrictive level sensing technology that includes a bypass chamber. The ILT-6000 contains a low profile waveguide that is inserted into a waveguide sleeve (thermowell) and float assembly. The waveguide sleeve isolates the internal waveguide from the process environment and protects it from excessive operating conditions. This provides an additional safety barrier for the operator because the transmitter and waveguide can be removed for field checking without interruption or exposure to process operations. The ILT-6000-BC is available in a wide variety of materials including 316 SS, CPVC, Alloy 20, Titanium, Hastelloy, PP or PVDF. It is available in any length up to 20 ft. and is superior in design, provides greater accuracy, and is more reliable than outdated displacer type of level transmitter instrumentation.

Technology

The **ILT-6000-BC** contains six elements: transmitter head, sensor pickup, waveguide probe, external thermowell, float and bypass chamber. It uses the magnetic field generated by the float to produce a proportionate level signal output. A low energy pulse generated by the transmitter electronics spans the waveguide probe and determines a base time-of-flight interval. As the float reacts to level fluctuations, the magnetic field intersects the waveguide and deflects the waveguide sensing wire. When this occurs, the time-of-flight interval changes and is detected by the transmitter sensor pickup, which converts the deflection to an electrical signal. The transmitter electronics recalculates a proportional signal output relative to the liquid level elevation with an accuracy of +/- 0.01% of the total span.

Standard Features

- 24 VDC nominal, two wire, loop powered
- LCD display in 4-20 mA, in/cm and/or percent output signal
- Local and remote detection for total or interface level
- HART protocol field communication
- Local programmability allows for easy parameter changes
- Quick-Cal function for simple recalibration to any span
- Non-wetted, dual sealed 316 SS waveguide & sensor
- All welded thermowell and float assembly, material variable
- Top, bottom or remote transmitter head mounting locations
- Accuracy of 0.01% of total span from enhanced sensitivity
- State of the art sensor and transmitter electronics
- Flanged, threaded, socket weld or sanitary connections
- Simple installation onto most tank or vessel applications
- Chamber connection sizes range from 1/2 to 6.00 inches
- Maximum transmitter and chamber length of 20 feet
- Full Vacuum to 725 PSIG @ 100° F. (ASME 300 lb)
- Explosion proof housing, NEMA Type 4X
- Rated Cl. I, Div.1, Gr. B,C,D; Cl. II, Div.1, Gr. E,F,G; Cl. III



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Specifications:

Performance

- Accuracy +/- 0.015 inches (+/- 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/cm³
- Damping 0.00 to 1.00 @ 0.01 sec.
- 1.00 to 25.0 @ 1.00 sec.
- Upper 3.00 inch (Deadband)
- Lower 3.00 inch @ probe end

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 +400° F. (-40° to +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: ILT6-BC-CM-CS-CR-SG-MAWP-MAWT-CL-X

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|-----------------------------------|---|
| CM Connection Material | MAWP Max. Operating Pressure |
| CS Connection Size | MAWT Max. Operating Temperature |
| CR Connection Rating | CL Connection Length (in/cm) |
| SG Specific Gravity @ MAWP / MAWT | X Options (Stilling Well, Valves, Position) |

