

Model MGT-6000

Magnetostrictive Level Transmitter

For Magnetic Liquid Level Indicators



Description

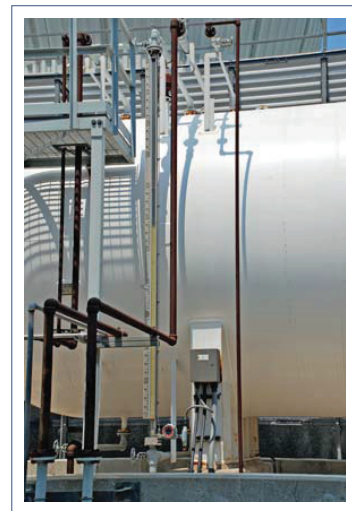
Jogler's **MGT-6000** series liquid level transmitter is the latest development in magnetostrictive liquid level sensing technology that is designed exclusively for magnetic level indicators. The MGT-6000 contains a low profile waveguide that is mounted away from the level gage chamber. This design isolates the waveguide from excessive vibration and temperature. From enhanced sensor technology, the output signal is very sensitive, fast, stable and accurate. The MGT-6000 can be mounted and retrofitted to most magnetic liquid level indicators.

Technology

The **MGT-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 low profile waveguide
- Isolated from excessive process temperature & vibration
- Top, bottom or remote transmitter head mounting locations
- Short offset mounting dimension of 7.00 inches
- Accuracy of 0.01% of total span from enhanced sensitivity
- Very durable with a strong, stable & noise free output
- State of the art sensor and transmitter electronics
- Unique transmitter puck design for ease of installation
- Maximum transmitter length of 20 feet
- Will retrofit to most magnetic level indicators
- Capable of extreme process operating temperatures
- 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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Specifications:

Performance

- Accuracy +/- 0.015 inches
- Repeatability 0.001% of full span
- Linearity 0.020% of full span
- Refresh Rate 10x per second
- Initiation 0.00 seconds
- Damping 0.00 to 1.00 @ 0.01 seconds
1.00 to 25.0 @ 1.00 seconds

Electrical

- Input 12-30 VDC (24 VDC nominal)
- Output 4-20 mA, HART
- Resistance 600 Ohms (max) @ 24 VDC
- Power 0.66 watts (30 VDC 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: Not applicable (non-invasive)
- Ambient Temp. -40° to +160° F (-40° to +71° C)
- Process Temp. -150° to +250° F (-100° to +121° C); (Standard)
Options to 850° F (454° 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: MGT-6000-a/b/c

- /a Mounting Position
 - BM Bottom mounted electronics (standard)
 - TM Top mounted electronics
- /b Configuration
 - S Standard
 1. Rated for process temperature to 250° F without chamber insulation.
 2. Rated for process temperature to 500° F with insulation pad or chamber insulation.
 - HT90 90 degree bend in waveguide for high temperature service. (FM approval pending)
 1. Rated for process temperature to 850° F with chamber insulation.
- /c XX Measuring length in inches or mm.

