

MTLT-6000 MAGNETOSTRICTIVE

QUEST-TEC SOLUTIONS MAGNETOSTRICTIVE TRANSMITTERS FOR MAGNE-TRAC GAGES

The MTLT-6000 is based upon the magnetostrictive principle. The sensing tube contains two wires which are pulsed with the magnetic field created by the magnetic float causes a torsion stress wave to be induced in the wire. The torsion propagates along the wire at a known velocity from the position of the magnetic float and toward both ends of the wire. The microprocessor-based electronics measure the elapsed time between the start and return pulses and convert it into 4-20mA DC output which is proportional to the level being measured.

Features

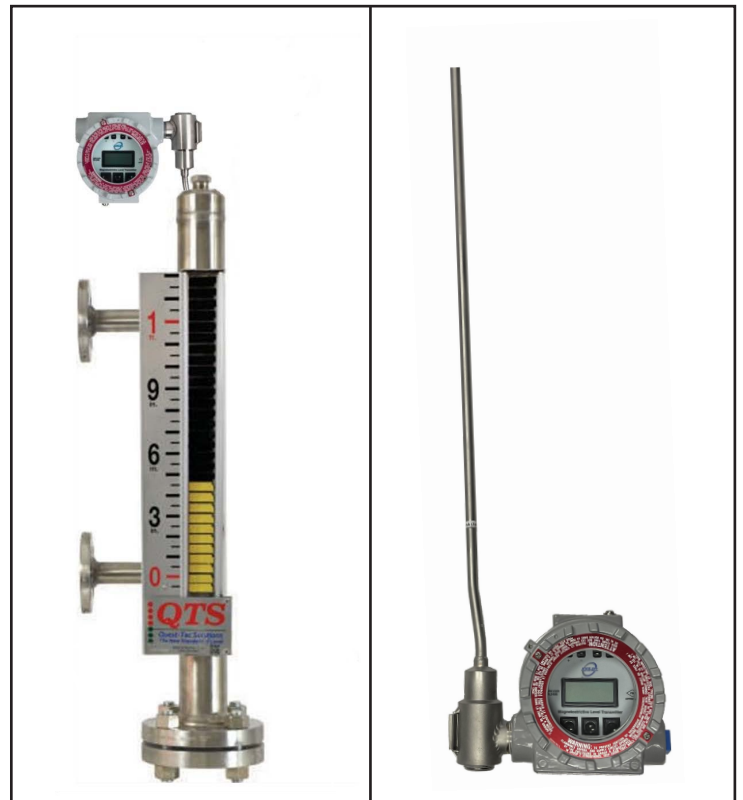
- Modular design
- High accuracy and repeatability
- Multi-drop HART communication
- Explosion-proof and / or intrinsically safe (model dependent)
- No maintenance required

Applications

- Process level measurement
- Bulk storage
- Interface measurement
- Temperature measurement
- Magnetic Level Gauge Transmitter

Markets

- Pharmaceutical
- Biotech
- Semiconductor
- Specialty Chemical
- Process Chemical
- LPG



[Right Image] MTLT-6000 Transmitter with display on Style A Magne-Trac Gage [Left Image] Close up image of MTLT-6000 Transmitter with display

LEVEL OUTPUT

Measured Variable	Product Level/Interface Level
Output	4-20mA, HART
Full Range	Rigid Sensors: up to 10668 mm (420 in.)
Non-linearity	Rigid Sensors Element: 0.20% F.S. (Independent BSL) or 0.794 mm (1/32 in.)
Repeatability	0.001% of full span
Sensor Operating Temperature	-100°C (-150°F) to 121°C (250°F)**

*Whichever is greater **Length dependent. Contact Quest-Tec for higher temperatures ***Contact Quest-Tec for longer lengths & higher pressures

MTLT-6000 MAGNETOSTRICTIVE TRANSMITTER

GAGE LOOP			
Input Voltage Range	12-30 VDC, 24 VDC Nominal		
Reverse Polarity Protection	Series diode		
CALIBRATION			
Zero Adjust Range	Anywhere within the active length		
Span Adjust Range	Full Scale \geq 152 mm (6 in.) from zero		
TEMPERATURE Ratings			
Electronics	-40° C (-40° F) to 70° C (160° F)		
LCD Readout	-40° C (-40° F) to 70° C (160° F)		
Standard	-40° C (-40° F) to 114° C (235° F)		
HT Version	-40° C (-40° F) to 214° C (400° F)		
ENVIRONMENTAL			
Humidity	0 to 99.00%, non-condensing		
Materials (non-wetted parts)	316 stainless steel, CPVC, Hastelloy, Alloy 20		
FIELD INSTALLATION			
Mounting	NPT fitting (3/4 in. rigid, 1 in. flex)		
Wiring	2-wire connection, shielded cable or twisted pair to screw terminals through a 1/2 in. NPT conduit opening NEMA Type 4X: 15ft (457 cm) pigtail integral cable or Daniel Woodhead (Part No. 70807SS) 6-pin Male 1/4 in. -18MNPT key-way receptacle, 3/4 in. NPT conduit opening of Ex housing		
DISPLAY (OPTIONAL)	HART COMMUNICATIONS		
Measured Variables	Level 1, Level 2		
Update Rate	3 Seconds		
Size	12.7mm (0.5 in)		
Number of Digits	8		
	Method of Communication . . . Frequency Shift Keying (FSK) conforms with Bell 202 Modem Standard with respect to baud rate and digital "1" and "0" frequencies		
	Data Byte Structure1 Start bit, 8 Data bits, 1 Odd Parity bit, 1 Stop bit		
	Digital Process Variable Rate . . Poll/Response Model 2.0 per second		
AGENCY APPROVALS			
FM (Canada & US)	<table border="0"> <tr> <td style="vertical-align: top;"> <p><u>Intrinsically Safe:</u></p> <p>Class I, Division 1 : Groups A, B, C, D Class II, Division 1 : Groups E, F, G Class III, NEMA Type 4X</p> </td> <td style="vertical-align: top;"> <p><u>Explosion-Proof:</u></p> <p>Class I, Division 1 : Groups B, C, & D Class II, Division 1 : Groups E, F, G NEMA Type 4X</p> </td> </tr> </table>	<p><u>Intrinsically Safe:</u></p> <p>Class I, Division 1 : Groups A, B, C, D Class II, Division 1 : Groups E, F, G Class III, NEMA Type 4X</p>	<p><u>Explosion-Proof:</u></p> <p>Class I, Division 1 : Groups B, C, & D Class II, Division 1 : Groups E, F, G NEMA Type 4X</p>
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The New Standard of Level

Glass-Trac Level-Trac
Steam-Trac Magne-Trac

