The QTS Maverick In-Tank transmitter is configured with a flexible cable constructed of 316L stainless steel that can be ordered in lengths from 120 inches to 866 inches with a 4-20mA. Once installed and calibrated there is no requirement for scheduled maintenance or recalibration.

**Features**
- Modular design
- High accuracy and repeatability
- Two channel output available
- Multi-drop HART communication
- Explosion-proof and / or intrinsically safe (model dependent)
- No maintenance required
- ± 2.7°F (±1.5°C) accuracy on temperature output

**Applications**
- Process level measurement
- Bulk storage
- Interface measurement
- Temperature measurement

**Markets**
- Pharmaceutical
- Biotech
- Semiconductor
- Specialty Chemical
- Process Chemical
- LPG
- Bulk Storage

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**LEVEL OUTPUT**

<table>
<thead>
<tr>
<th>Measured Variable</th>
<th>Product Level/Interface Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output</td>
<td>4-20mA, 2 loops with HART</td>
</tr>
</tbody>
</table>

**Full Range**
- Flexible Sensors: 3050 mm (120 in.) to 12192 mm (480 in.)***
- Rigid Sensors: 508 mm (20 in.) to 7620 mm (300 in.)

**Non-linearity**
- Flexible Sensor Element: 0.35% F.S. (Independent BSL) or 0.794 mm (1/32 in.)*
- Rigid Sensors Element: 0.20% F.S. (Independent BSL) or 0.794 mm (1/32 in.)*

**Repeatability**
- Flexible Sensor Element: 0.01% F.S. or 0.381 mm (0.015in.)*
- Rigid Sensors Element: 0.005% F.S. or 0.127 mm (0.005 in.)*

**Sensor Operating Temperature**
- -40°C (-40°F) to 125°C (257°F)**

*Whichever is greater  **Length dependent. Contact Quest-Tec for higher temperatures  ***Contact Quest-Tec for longer lengths & higher pressures
# MTLT-5000 MAGNETOSTRICTIVE TRANSMITTER

## GAGE LOOP
- **Input Voltage Range**: 10.5 to 36.1 Vdc, 28 Vdc maximum for I.S. ATEX approval
- **Reverse Polarity Protection**: Series diode
- **Lighting/Transient Protection**:
  - Stage 1: line-to-ground surge suppressors; 2500 Amps peak (8/20 μsec.)
  - Stage 2: line-to-ground and line-to-ground transient suppressors; 1500 Watts peak (10/1000 μsec.)

## CALIBRATION
- **Zero Adjust Range**: Anywhere within the active length
- **Span Adjust Range**: Full Scale ≥ 152 mm (6 in.) from zero

## TEMPERATURE OUTPUT
- **Type**: 4-20 mA from 1,000Ω platinum RTD at 0°C
- **Repeatability**: ±0.18 °F (0.1°C)
- **Accuracy**: ±2.7 °F (1.5 °C)
- **Drift**: ±0.9 °F (0.5°C) per year
- **Zero Adjust**: -40 to 255 °F (-40 to 124 °C)
- **Span Adjust**: 45°F (7.2°C) minimum, full scale (maximum) = 300°F (149 °C)

## ENVIRONMENTAL
- **Humidity**: 0 to 100% R.H., non-condensing
- **Electronics Operating Temperature**: -34°C (-30°F) to 71°C (160°F)
- **Vessel Pressure**: Rigid pipe rated at 69 bar (1000 psi), dependent n float pressure rating (19 bar /275 psi) max-flexible outer pipe*
- **Materials (wetted parts)**: 316L stainless steel **

## FIELD INSTALLATION
- **Mounting**: NPT fitting (3/4 in. rigid, 1 in. flex) or flange mounting
- **Wiring**: 2- wire connection, shielded cable or twisted pair to screw terminals through a 1/2 in. NPT conduit opening NEMA Type 4X: 15/f_t (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)
- **Measured Variables**: Level 1, Level 2, temperature
- **Update Rate**: 3 Seconds
- **Size**: 12.7mm (0.5 in)
- **Number of Digits**: 16

## HART COMMUNICATIONS
- **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 Structure**: 1 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
- **Canadian Standards (CSA)**: Intrinsically Safe:
  - Class I, Groups A, B, C, D
  - Class II, Groups E, F, G
  - Division 1, NEMA Type 4X
  - Models: All
- **Explosion-proof**: Classification:
  - Class I, Groups B, C, D
  - Class II, Groups E, F, G
  - Division 1, NEMA Type 4X
  - Models: Explosion-proof housing req.

- **FM Global**: Intrinsically safe:
  - EEx ia IIB + T4
  - EEx ia IIA + T4
- **PTB/ATEX**: (Consult Factory for PTB/ATEX model numbers)

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*Contact Quest-Tec Solutions for Higher Pressure **Contact Quest-Tec Solutions for other materials