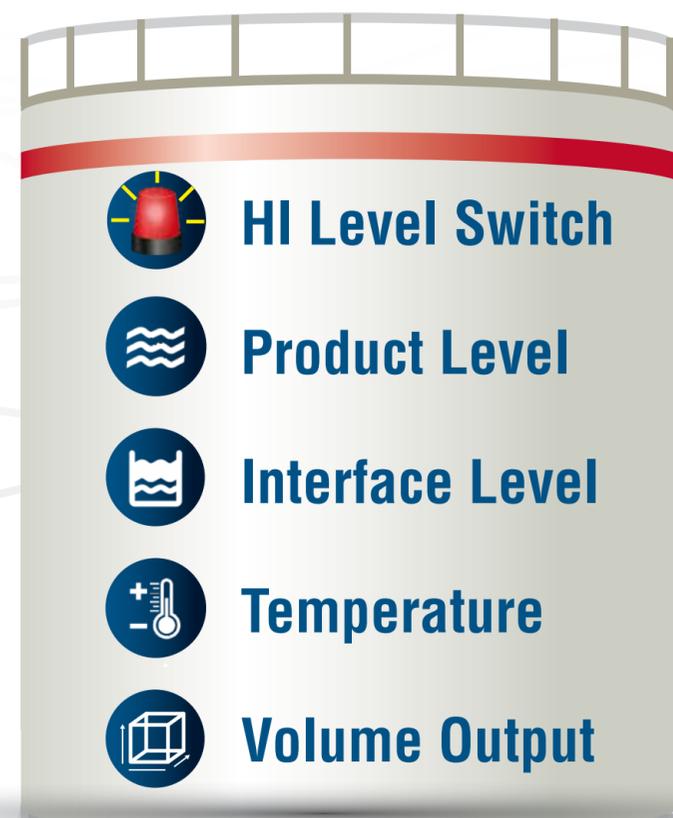


Measure more with less.

5-IN-1 Measurement - Measure four process variables along with a HI level switch from a single tank opening. Level Plus® liquid level transmitters provide the ability to measure product level, interface level, multi-point temperature and volume in a process from a single level transmitter. The new LevelLimit® transmitter goes a step further and adds an electrically isolated HI level switch for overfill protection. No other level transmitter can do so much so accurately. Save Time and Money and Headaches, choose MTS.



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Level Plus®

Magnetostrictive Liquid Level Transmitters
 with Temposonics® Technology

SENSOR SELECTOR GUIDE

Level

Document Part Number:
 551263 Revision G (EN) 03/2020



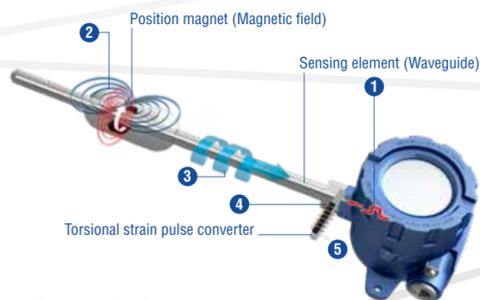
be certain.

MEASURING TECHNOLOGY

The liquid level transmitters provided by MTS Sensors rely on the company's proprietary Temposonics® magnetostrictive technology, which can determine position with a high level of precision and robustness.

Each Level Plus® liquid level transmitter consists of a ferromagnetic waveguide, a float, a strain pulse converter and supporting electronics. The float, containing a permanent magnet and sitting on the liquid, generates a magnetic field at its location on the waveguide. A short current pulse is applied to the waveguide. This creates a momentary radial magnetic field and torsional strain on the waveguide. The momentary interaction of the magnetic fields releases a torsional strain pulse that propagates the length of the waveguide. When the ultrasonic wave reaches the end of the waveguide it is converted into an electrical signal. Since the speed of the ultrasonic wave in the waveguide is precisely known, the time required to receive the return signal can be converted into a liquid level measurement with both high accuracy and repeatability.

The Temposonics® technology, based on magnetostriction and is not exposed to mechanical stress. Therefore, the sensors exhibit considerably longer lifespans and much higher reliability when compared to other technologies, even in harsh working conditions. Furthermore, since the output from sensors with Temposonics® technology corresponds to an absolute position, rather than a relative value, it is not required to recalibrate sensors.



- Measurement cycle**
- 1 Current pulse generates magnetic field
 - 2 Interaction with position magnet field generates torsional strain pulse
 - 3 Torsional strain pulse propagates
 - 4 Strain pulse detected by converter
 - 5 Time-of-flight converted into distance

COMPANY

MTS Sensors is recognized as an industry leader in sensing technologies and solutions. These sensors permit high-precision and dynamic position and/or speed measurement in state-of-the-art automation and safety-relevant applications.

With a versatile and ever increasing product portfolio, MTS Sensors cooperates closely with customers, to optimize performance and reduce downtimes. Outstanding quality associated with practical know-how ensures that customers achieve utmost productivity and success. Continuous research, development and production of sensor systems constantly enable new solutions for measuring tasks in the industrial, mobile hydraulics as well as process technology fields to be created.

MTS Sensors is a division of MTS Systems Corporation (NASDAQ:MTSC). In July 2016, MTS Systems Corporation (Eden Prairie, USA) purchased PCB Piezotronics Inc. (Depew, USA). The acquisition will continue MTS' and PCB's long history of growth. Our customers benefit from an extended, complementary product portfolio, while relying on the unwavering competence and diligence of our support team. MTS Sensors has 1600 employees worldwide who serve our global customers with a focus on superior regional support.

be certain.

LP-Series



FEATURES	Tank SLAYER®	RefineME®	SoClean®	CHAMBERED	LevelLimit®
Product level	•	•	•	•	•
Interface level	•	•	•		•
Temperature	•	•	•		•
Rigid pipe		•		•	•
Flexible hose	•				•
Sanitary pipe			•		
Stainless Steel	•	•	•	•	•
Hastelloy C		•	•		
Teflon		•			
HART®	•	•	•	•	
Modbus / DDA	•	•	•	•	•
Current output	•	•	•	•	
Integral HI Level Switch					•
Resolution	±1 mm (0.039 in.)	±1 mm (0.039 in.)	±1 mm (0.039 in.)	±1 mm (0.039 in.)	±1 mm (0.039 in.)
Maximum stroke length	22000 mm (866 in.)	7620 mm (300 in.)	7620 mm (300 in.)	6096 mm (358 in.)	22000 mm (866 in.)
CERTIFICATES					
ATEX	•	•	•	•	•
FM	•	•	•	•	•
CEC	•	•	•	•	•
IECEX	•	•	•	•	•
CCoE	•	•	•	•	
NEPSI	•	•	•	•	
KC	•	•	•	•	
INMETRO	•	•	•	•	
TIIS	•	•	•	•	
SIL2	•	•	•	•	

APPLICATIONS

- Tank SLAYER®
 - Bulk Storage Tanks
- LevelLimit®
 - Oil Lease Tanks
- RefineME®
 - Reactors
 - Sump/Slop Tanks
 - Alkylation Tanks
 - SX Pools
- SoClean®
 - Bioreactors
 - CIP Tanks
- CHAMBERED
 - Magnetic Level Gauge

MARKETS

- Oil and Gas
- Chemical
- Specialty Chemical
- LPG
- Pharmaceutical
- Food and Beverage
- Mining
- Marine



FEATURES

- 5-IN-1 Measurement
 - Product Level
 - Interface Level
 - Temperature
 - Volume
 - HI Level Switch
- Product Level
- Interface Level
- Multi-point Temperature
- Volume
- No Scheduled Maintenance or Recalibration
- Intrinsically Safe
- Explosion Proof / Flameproof
- Inherent Accuracy ± 1 mm
- Integral Display with Through Glass Programming
- 200 point strapping table
- API Temperature Corrected Volume
- Field Repairable