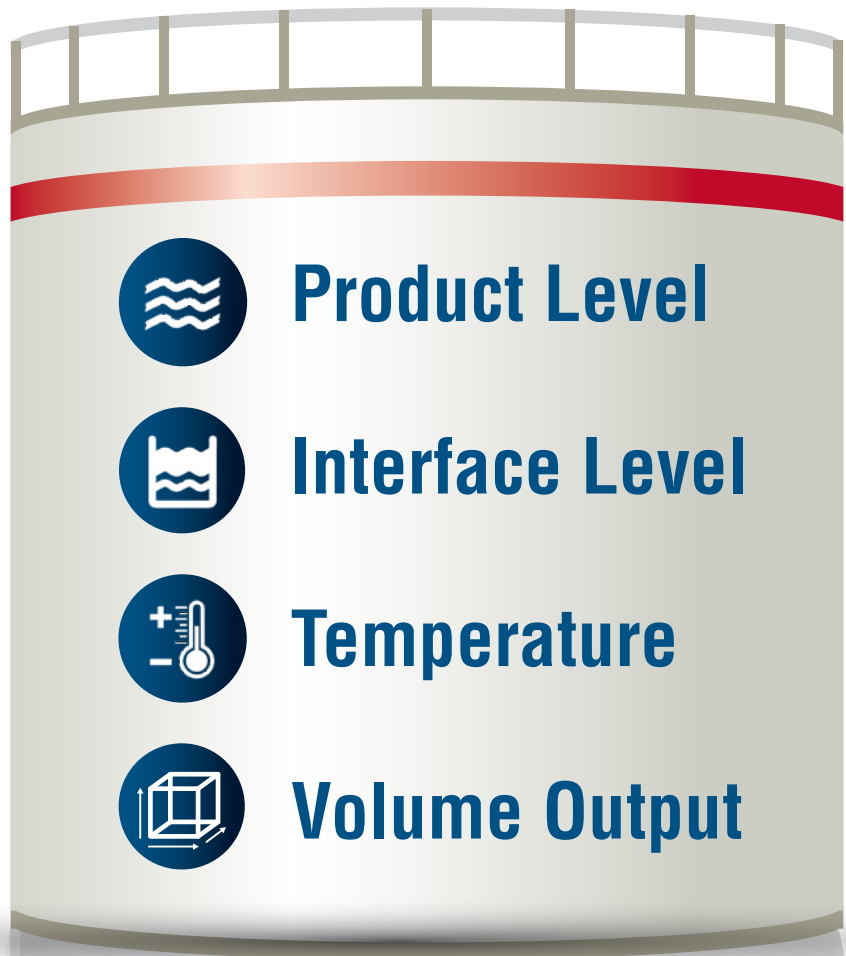


Measure more with less.

4-IN-1 Measurement – Measure four process variables from a single instrument. Save Time and Money. Level Plus® liquid level transmitters from MTS Sensors provide the ability to simultaneously measure product level, interface level, multi-point temperature and volume in a tank from a single level instrument. Combining process variables measurement results in lower costs from less instrumentation and no additional tank modifications.



UNITED STATES
MTS Systems Corporation
Sensors Division
3001 Sheldon Drive
Cary, N.C. 27513
Phone: +1 919 677-0100
E-mail: info.us@mtssensors.com

GERMANY
MTS Sensor Technologie
GmbH & Co. KG
Auf dem Schüffel 9
58513 Lüdenscheid
Phone: +49 2351 9587-0
E-mail: info.de@mtssensors.com

ITALY
Branch Office
Phone: +39 030 988 3819
E-mail: info.it@mtssensors.com

FRANCE
Branch Office
Phone: +33 1 58 4390-28
E-mail: info.fr@mtssensors.com

GREAT BRITAIN
Branch Office
Phone: +44 79 44 15 03 00
E-mail: info.uk@mtssensors.com

CHINA
Branch Office
Phone: +86 21 6485 5800
E-mail: info.cn@mtssensors.com

JAPAN
Branch Office
Phone: +81 3 6416 1063
E-mail: info.jp@mtssensors.com

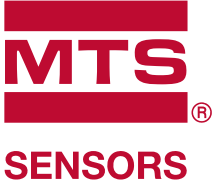
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Level Plus®

Magnetostrictive Liquid Level Transmitters
with Temposonics® Technology



Liquid Level Transmitters Product Overview



Image reference:
Background: © Alex Staroseltsev - Fotolia.com

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.

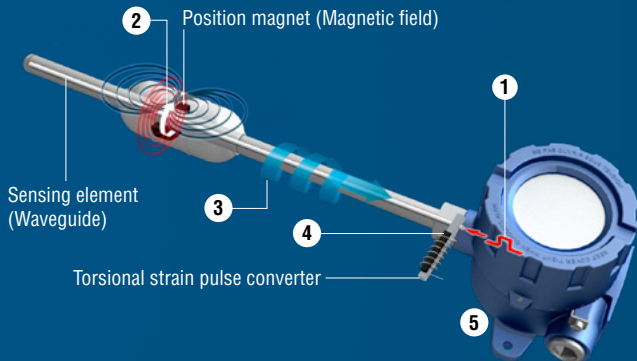
With a versatile and ever increasing product portfolio, MTS Sensors cooperates closely with customers, to optimize performance and reduce downtimes. Outstanding quality associated with practical know-how ensures that customers achieve utmost productivity and success. Continuous research, development 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 1450 employees worldwide who serve our global customers with a focus on superior regional support.

MEASURING TECHNOLOGY





The heart of Level Plus® liquid level transmitters is the ferromagnetic measuring element, also known as the waveguide. In the waveguide a movable position magnet that generates a direct-axis magnetic field in the waveguide. When a current or interrogation pulse passes through the waveguide, a second magnetic field is created radially around the waveguide. The interaction between the magnetic field in the waveguide and the magnetic field produced by the position magnet generates a strain pulse which travels at a constant ultrasonic speed from its point of generation, the measurement point, to the end of the waveguide where it is transformed into an electric pulse in the sensor element. The resulting signal is processed by the specialized electronics of the Level Plus® liquid level transmitters.

With extensive know-how of ferromagnetic materials, magnetic effects and ultrasonic processes, MTS Sensors remains unrivalled in performance standards for liquid level measurement of the highest precision.



- 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 position

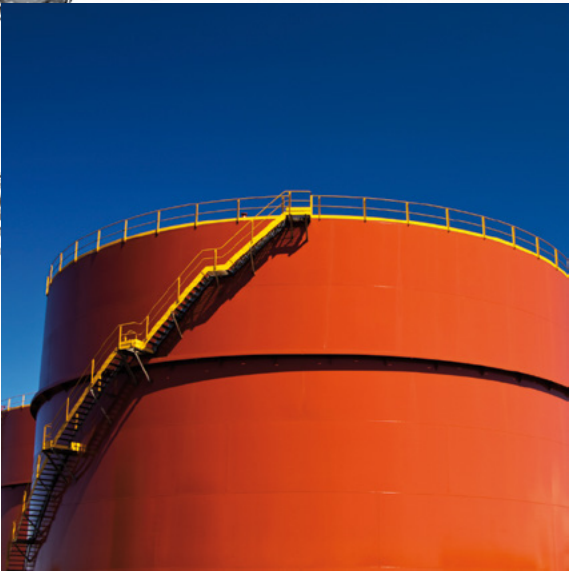
LP-Series

	Tank SLAYER®	RefineME®	SoClean®	CHAMBERED
				
FEATURES				
Product level	•	•	•	•
Interface level	•	•	•	
Temperature	•	•	•	
Rigid pipe		•		•
Flexible hose	•			
Sanitary pipe			•	
HART®	•	•	•	•
MODBUS / DDA	•	•	•	•
Current output	•	•	•	•
Resolution	±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.)
CERTIFICATES				
ATEX	•	•	•	•
FM	•	•	•	•
CEC	•	•	•	•
IECEx	•	•	•	•
CCoE	•	•	•	•
NEPSI	•	•	•	•
KC	Pending			
INMETRO	•	•	•	•
TIIS	•	•	•	•
SIL2	•	•	•	•



MARKETS

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



APPLICATIONS

- Bulk Storage
- Inventory Control
- Additive Tanks
- Slop Tanks
- Reactors
- Alkylation Tanks
- Bioreactors
- CIP Tanks
- Bottle Fillers
- SX Tanks

FEATURES

- 4-IN-1 Measurement
- 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