

Level Plus[®]

Magnetostrictive Liquid-Level Transmitters
with Temposonics[®] Technology

PRODUCT OVERVIEW

Liquid Level Transmitters





Headquarters
MTS Systems Corporation, Minneapolis, USA



MTS Sensor Technologie
Lüdenscheid, Germany



MTS Sensors Division
Cary (North Carolina), USA



MTS Sensors Technology Corp.
Tokyo, Japan

THE COMPANY

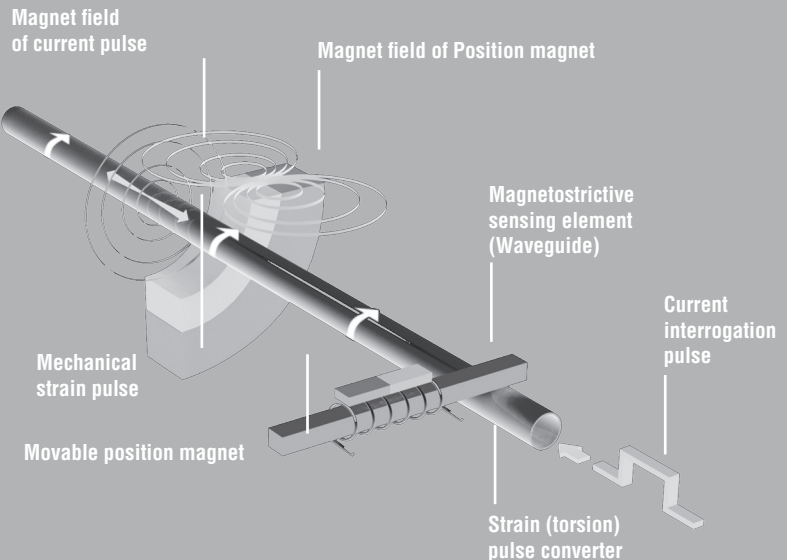
The World of MTS - Precision and Reliability




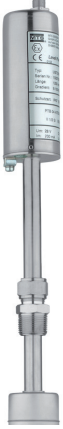
Following the founding of MTS Systems Corporation in 1951, the company rapidly developed into a leading supplier of intelligent hardware and software products in the fields of test and simulation systems and in measuring and automation technology. Today MTS Systems Corporation has over 2000 employees worldwide – 280 of whom are employed by MTS Sensors at three sites in the **USA (Cary, N.C.)**, **Germany (Lüdenscheid)** and **Japan (Tokyo)**. At MTS, intensive basic research is efficiently merged with a consistent focus on practical requirements. The results are innovative solutions for a wide range of potential industrial and non-industrial applications.

THE PRINCIPLE

Magnetostriction - A Milestone in Measurement Technology

The heart of MTS sensors is the ferromagnetic measuring element, also known as the waveguide, and 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 Temposonic sensor. With our extensive know-how of ferromagnetic materials, magnetic effects and ultrasonic processes, MTS remains unrivalled in performance standards for non-contacting position measurement of the highest precision.



	M-Series			USTD II
				
	MR	MC420	MG	USTD II
Level	X	X	X	X
Interface	X		X	X
Temperature	X		X	X
Rigid Pipe	X	X	X	X
Flexible Hose	X		X	
Sanitary	X		X	
HART	X	X		
FOUNDATION FIELDBUS			X	
MODBUS / DDA			X	X
Volume Output			X	
Non-linearity	0.02% fs	0.02% fs	±1 mm	±0.5 mm
Maximum Length	12200 mm	5500 mm	22000 mm	3800 mm
ATEX Approval	X	X	X	X
FM Approval	X	X	X	X
CSA Approval	X	X	X	
IECEx Approval	X		X	
CCoE Approval	X		X	
NEPSI Approval	X	X	X	X
KC Approval	X		X	
ABS Type Approval			X	



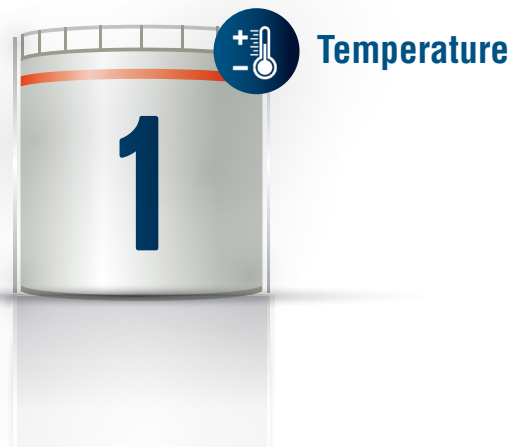
Industries Served

Level Plus® liquid level transmitters utilize the inherent advantages of magnetostrictive technology to provide the product level, interface level, and temperature measurement of a tank from one process opening. Accurately measuring multiple process variables from one opening lowers the installed costs of adding feedback to a storage tank or process vessel.

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

Measure more with less.

3-in-1 Measurement - measure more process variables with less hassle by using a single instrument to measure up to three different process variables. MTS provides the ability to measure the product level, interface level and multipoint temperature in a tank from a single level instrument. Combining process variables measurement results in lower costs from less instrumentation and no additional tank modifications.



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