

Level Plus[®]

Magnetostrictive Liquid-Level Sensors
with Temposonics[®] Technology



Document Part Number
550957 Revision A

Maintaining Level in Specialty Chemicals

Case Study



MTS Level Plus Model MR Analog Transmitter with Optional Single-Cavity Explosion-Proof Housing

Introduction

DanChem Technologies, based in Danville, Virginia, has an extensive array of both stainless steel and glass-lined reactors that are available for the manufacture of specialty fine chemicals, and provides a full range of manufacturing capabilities from pilot scale to multi-ton bulk.

DanChem Technologies requires level sensors to measure chemicals such as acetone, methanol, vinyl acetate, butanol as well as water in above ground storage tanks. With four plants at the Danville facility, DanChem Technologies needed to obtain accurate and reliable measurement results for inventory of its bulk chemical storage.

DanChem Technologies' requires accurate and reliable readings for its 200 to 15,000 gallon storage tanks for an application that could recover vapors from a dryer. The recovery system used in DanChem's process required an accurate, reliable level sensor to ensure that the product is recovered for future use.

"We could have used a radar sensor for this application since the tanks are relatively small," said Wes Hoskins, Senior Instrument Technician of DanChem Technologies. "However, with radar sensors you are limited with installation flexibility. Overall, we needed a reliable sensor that could measure the recovered chemicals for future use. And from past experience, we knew that a MTS Sensors level transmitter could do the job."

The Solution

By installing an MTS Level Plus Model MR Analog transmitter, DanChem engineers were able to receive reliable and accurate solutions for its application.

The Level Plus Model MR transmitter features include:

- 4-20 mA analog output with HART[®] communication
- Single-cavity, explosion-proof enclosure
- 316L stainless-steel transmitter pipe
- 3A approved for use in wash down applications

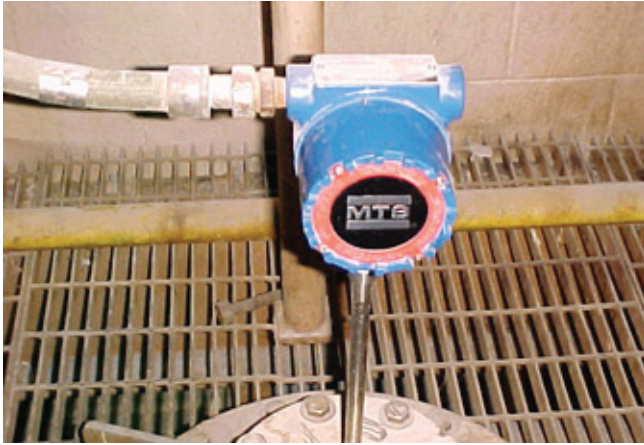


MTS Level Plus Model MR Transmitter with NEMA Type 4X Enclosure

The MTS level transmitter above with the NEMA type 4X 316L stainless-steel enclosure option. This level transmitter is mounted in a recovery tank for water monitoring level using one float and is in a Kosher process.

The Level Plus Model MR transmitter uses magnetostrictive technology. Magnetostriction provides a high degree of accuracy and is unaffected by variable process temperatures, pressures or media electrical properties that limit other level measurement technologies. The Level Plus Model MR transmitter is designed to tough NEMA type 4X standards to withstand high temperature, pressure and caustic solutions used in the sanitation process. Also, the customer does not have to remove the sensor from the vessel for cleaning.

All specifications are subject to change. Contact MTS for specifications and engineering drawings that are critical to your application. Drawings contained in this document are for reference only. Go to <http://www.mtssensors.com> for the latest support documentation and related media.



MTS Level Plus Transmitter with Single Cavity Explosion-Proof Housing

About DanChem Technologies

Most of DanChem's business involves manufacturing polymers (combining multiple molecules to form a complex structure) and intermediates (manufacturing a chemical compound which is then used in a series of further chemical processes). These materials are then used by DanChem's blue chip customers to manufacture products for a wide range of end-markets including, paints, coatings, personal care products, food additives, pharmaceuticals, textiles and electronics. DanChem is FDA registered and operates to cGMP protocols. The company is ISO 9002, ISO 14001, and Kosher Certified.

Published date: 2002

Part Number: 550957 Revision A 03-05, 02-09

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