



Level



Pressure



Flow



Temperature



Liquid
Analysis



Registration



Systems
Components



Services



Solutions

Measurement of Waste Solvents in Distillation Tanks

Levelflex - FMP 40



Levelflex M

The FMP 40 with 0.63" (16mm) rod probe is used for reliable level measurement of concentrated waste solvent during the distillation process.

Company Profile

Chemical supplier in Italy.

Focus on Polyethylene market, Olefins and Aromatics, Styrenics and Elastomers

Application

Tank:

Diameter = 6.5 ft (2m)

Height = 6.5 ft (2m)

One stage agitator (40rpm)

Process

Distillation of waste Butadiene

Pressure = vacuum

Temperature = 212°F (100°C)

Alternative Measurement Technologies

Due to the boiling surface, big presence of vapor and foam, a competitor's radar instrument did not work well.

Result

The nozzle is 3" (DN80) H=7.9" (200mm) + welded boss H=2.7" (70mm) (total 10.6" (270mm)). The device is working well and it wasn't necessary to do any additional calibration. However, to ensure a stable measurement in any possible case the nozzle has been mapped out anyhow.

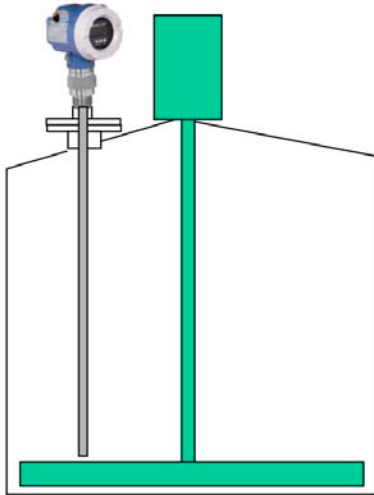
Instrument description

The Levelflex M is a top-mounted, compact level transmitter for process control or inventory/storage applications that operates with micro-impulse radar on the guided time-of-flight principle.

Fluctuations in the density, temperature, or build-up of dust do not influence the measurement. Probes are available with various process connections including 3/4" NPT, 1-1/2" NPT, and flanges up to 8".

Features and benefits

- Simple, menu-guided on-site operation with four-line plain text display
- Envelope curves on the on-site display for simple diagnosis
- Easy operation, diagnosis and measuring point documentation with the supplied ToF Tool operating program
- Optional remote display and operation
- Coax probe allows measurement completely independent of the tank interior and installation in a nozzle



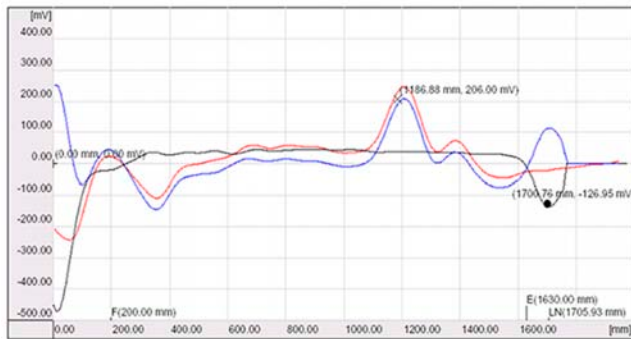
Sketch of installation

Tank Dimensions

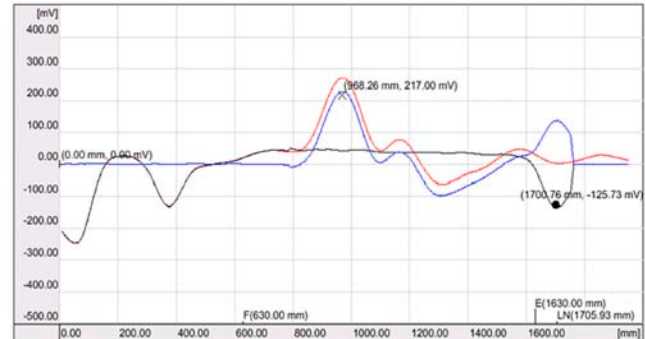
Diameter = 6.5 ft (2m)

Height = 6.5 ft (2m)

One stage agitator (40rpm)



Envelope curves before mapping



Envelope curves after mapping

USA

Endress+Hauser, Inc.
 2350 Endress Place
 Greenwood, IN 46143
 Tel. 317-535-7138
 Sales 888-ENDRESS
 Service 800-642-8737
 Fax 317-535-8498
 inquiry@us.endress.com
 www.us.endress.com

Canada

Endress+Hauser Canada
 1075 Sutton Drive
 Burlington, ON L7L 5Z8
 Tel. 905-681-9292
 800-668-3199
 Fax 905-681-9444
 www.ca.endress.com

Mexico

Endress+Hauser
 Paseo del Pedregal No. 610
 Col. Jardines del Pedregal
 01900, Mexico D.F.
 MEXICO
 Tel. 525-568-2405
 Fax 525-568-7459