



Level



Pressure



Flow



Temperature



Liquid
Analysis



Registration



Systems
Components



Services



Solutions

FMP 40 in Level Measurement in Bioreactor-Pharm.

Levelflex M FMP 40 in pharmaceutical reactor vessels



Typical small SS tanks



FMP40 with TSP Tri-clamp fitting



Checking levels in bio-storage vats

The guided wave radar Levelflex M FMP 40 is used to measure level in a bioreactor.

Customer profile

A large producer of pharmaceuticals and biologics in California.

Application description

Product: Various enzymes, WFI
Temperature: Ambient
Tanks: Stainless steel, 40" tall
Mounting: Tri-clamp
Dielectric constant: >10

Application challenge

The customer used to use magneto strictive transmitters but had problems with the accuracy due to changing densities of the product and its cleanability. High accuracy is required, plus the customer wanted to calibrate the instrument and be able to change electronics without opening the tank.

Application solution

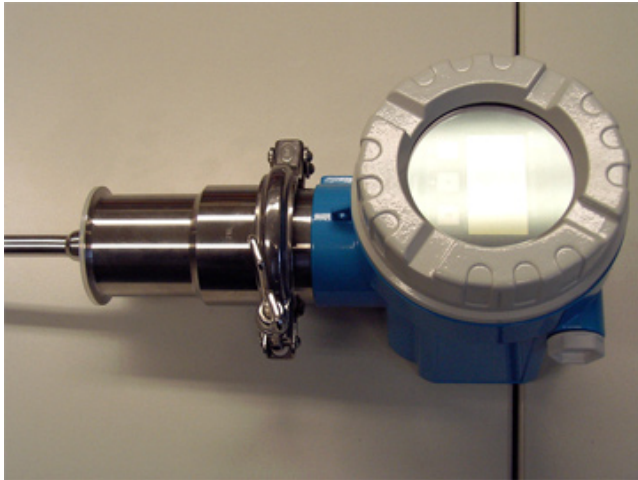
A Levelflex M FMP 40 with Tri-clamp was installed in the tank. The measurement results showed excellent measuring, even with changing densities and foam in the tank. The special bio-design of the transmitter made it easy to remove the electronics from the probe, place it on a reference probe and calibrate without breaking the sterility of the reactor. Fluctuations in density, temperature and foam do not affect the measurement.

Instrument description

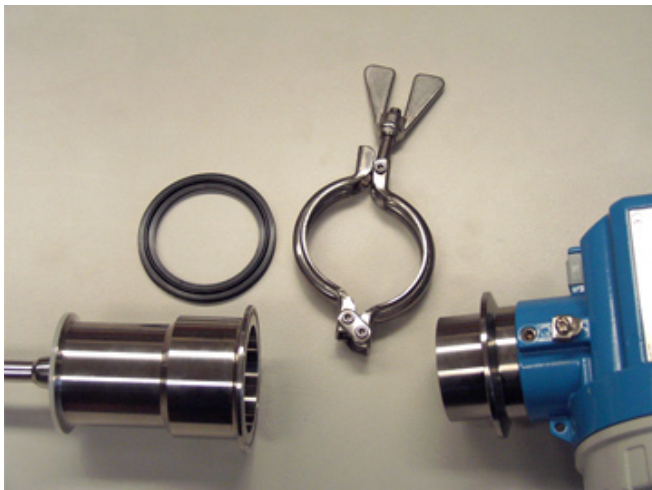
The Levelflex M is a top mounted compact level transmitter that transmits micro impulse radar signals on a rod or cable. The pulses are reflected by the product surface, received by the electronics, evaluated and converted into level information.

Wetted materials are FDA, USP 88 Class VI. The rod is electropolished and the seal is PFA.

For more information, contact
Endress+Hauser, Inc.
317-535-7138
www.us.endress.com



FMP 40 with Tri-clamp allows electronics to be removed without disturbing process.



FMP 40 Tri-clamp assembly

ISO 9001:2000 Certified

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