

Crude Desalting



The salts contained in the brine left over from crude oil can cause serious corrosion and scaling problems and must be removed. Desalting removes salts and residual free water. Although the refinery is the most economical site for desalination, to protect pipeline, onsite desalting is required at the extraction site.

Challenges

The level instrument is part of the sedimentation tank of single and double stage desalination system, Multi-hole plate mixer and chemical desalter. The Interface and level control prevents free water from touching the desalting electrode which will lead to high loss. The interface level should be kept constant, otherwise the change of electric field will interfere with electron coalescence.

Products

- **ZTD Displacer Level (Interface) Transmitter**

ZTD displacer level (interface) transmitter is an intelligent level measuring instrument with international leading level independently developed by DDTOP after many years of technical research. The simple buoyancy principle is used to detect the change of level, and then the magnetic signal is converted into a stable 4-20mA current signal and output through the torque tube assembly and the hall sensor. The instrument has a variety of configurations and pressure levels, which are suitable for various applications.

Equipped with DLT9010 level controller, output 4~20mA current signal. At the same time, it has HART communication protocol, which can query, configure, calibrate or test level

controller. It can also accept the information of a single measurement loop and transmit the information from site to the control system.

Features

1. SIL2 certification certified by both French Bureau Veritas and Shanghai SITIIS.
2. Verification is not needed, only configuration is needed.
3. The product provides 4-20 mA with HART, and can be configured, calibrated and diagnosed on site using the 475 Communicator.
4. Comprehensive fault diagnosis, warning and status history.
5. EU PED pressure vessel certification, the applicable pressure can be up to 42MPa
6. Maximum process temperature which is applicable in non-vapor condition can be up to 500°C.
7. Flame-proof and Intrinsic safety certified by CSA, ATEX and IEC.
8. Process parameters can be adjusted online.
9. The transmitter can be converted arbitrarily in 8 positions without affecting the on-site use.
10. It is suitable for interface measurement and density measurement.
11. EU EMC directive CE certification.

The latest generation of TRG802X series guided wave radar level transmitter is a two-wire 24VDC powered level transmitter, which adopts advanced microprocessor and unique echo processing technology.

TRG802X series guided wave radar level transmitter can be applied to various complex working conditions and applications. Whether it is a light hydrocarbon or water-based solution, it is suitable.

Features

1. Multi-variable 2-wire system and 24VDC loop-powered level transmitter can be used to measure level, interface, volume or flow.
2. The level measurement results are not affected by the change of medium properties.
3. It is no need to calibrate by adjusting the actual level.
4. Select the probe with function of "anti-overflow ", the true level to the process connection seal can be measured directly without special algorithm.
5. 4 buttons and graphical LCD display can easily observe the instrument configuration information and signal waveform diagram.
6. Use split structure, the electronic device can be replaced without opening the storage tank.

● **UTK Displacer Level Controller**

UTK Displacer level controller takes float or displacer as measuring element. The

measuring element is connected to the magnetic sensor. The magnetic control switch is sucked through the magnetic induction magnetic coupling to realize the control and alarm of the liquid level. UTK displacer level controller is highly stable, anti-vibration, and suitable for extreme temperature and pressure

Features

1. Stable output signal is not affected by surface fluctuation.
2. Process temperature range is from -40° to 300°C .
3. The product uses 304, 316 high-quality materials which make it more durable and reliable.
4. This product is suitable for the working condition of pressure vacuum $\sim 26\text{MPa}$, temperature $-40^{\circ}\text{C}\sim +300^{\circ}\text{C}$.
5. The product has passed SIL2 functional safety certification and explosion-proof certification, and can be used in a variety of working conditions to effectively avoid the occurrence of accidents.
6. The pressed part and the switch contact part are completely isolated by magnetic coupling, which has high reliability and safety.

● **UHC Magnetic Level Gauge**

UHC magnetic level gauge provides a safer, more reliable and more visible option than conventional glass level gauge. The float moves up and down with the change of level, and the float transmits the level signal through the coupling magnetic field, which divides into the local indication type and the remote transmission output type.

Chamber and float have a variety of materials and pressure-grade options and are suitable for complex process applications of current major operating devices.

Features

1. The float adopts 304, 316 L, TA2 and TC4 material. It has good temperature resistance and can reach to 450°C .
2. The welding process meets the requirements of PED welding process. The chamber is made of 304, 316 L. The maximum pressure can reach to 26 MPa.
3. Local indicator type and remote output type with level alarm are optional.
4. According to customer requirements, through a variety of production types, the products can be applied to a variety of working conditions.