

Crude Oil Storage Tank Area



After reaching the refinery terminal, crude oil is pumped into ground storage tanks with storage capacity ranging from thousands to millions of gallons. These tanks are floating-roof or fixed-top tanks manufactured on site according to API standards.

Challenges

Tank level is controlled by valve drive/adjust. Level control can prevent overflow by triggering an emergency interrupt and shutting off the pump when the level drops to a low level. Due to the low flash point of crude oil, the measuring instruments shall have safety certification.

Products

- **TRG802X Guided Wave Radar Level Transmitter**

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 ~26MPa, temperature -40°C~+300°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.

● **TRG806X Radar Level Transmitter 26GHz**

TRG806X series radar level transmitter is the latest generation of two-wire system 26 GHz single pulse radar level transmitter. It has a longer measurement range, advanced self-diagnosis function. The use of advanced signal processing technology can filter out false targets or other noise signals. Through antenna, it can transmit extremely short pulses with very low energy. By using ultra-high speed timing circuit to measure the time required for the pulse signal to meet liquid surface and reflect echo.

Features

1. 26GHz operating frequency provides excellent accuracy and resolution.
2. Antenna design 250°C.
3. Measurement range can be up to 70m.
4. Quick connection/disassembly of probe shaft sleeve allows the container to remain sealed.
5. After inputting the actual level, the software can automatically identify the false echo from the level to the antenna, and eliminate the interference of these waves.
6. Parameter setting is convenient, it can be set by the simple operation key on the level meter, also can be operated by the computer or the upper computer software.

● 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.

● UTX Tuning Fork Level Controller

UTX tuning fork type level controller is suitable for high and low position detection of various level in tank or pipes. Products are widely used in chemical fiber industry, rubber industry, tire industry, cement industry, iron and steel industry, food factory, pharmaceutical factory, petrochemical plant, feed plant and other industries raw material / process / finished product barrel tank level control.

Features

1. SPDT replay output, SSR MOSFET output.
2. Wide voltage supply range 20~250 Vac/Vdc,50/60Hz.
3. It doesn't need to be calibrated frequently and it is simple to use and durable. High and low power failure protection makes it safe and reliable.

4. The product can be adjusted according to different density of materials, fine materials are also available.
5. It can be used to measure liquid, powder, particles and so on.
6. Double insulation can reduce the damage to the circuit board for the environment where the temperature and humidity change greatly and easily condense water (UTX3 series).
7. After installation, the device can be tested by the test button (UTX3 series).
8. Output controller delay function (UTX3 series).
9. A self-diagnostic mechanism to detect abnormalities such as wear and tear of the tuning fork probe or material adhesion. (UTX3 series).
10. Built-in box-type junction box, small size to save installation space. (UTX3 series).
11. The junction box can be rotated 270 degrees for easy adjustment of the direction of the wire inlet.
12. The specific gravity of the material can be measured down to 0.01 g/cm³. (UTX3 series).
13. Super-protection mechanism to set a second set of output contact point as alarm output (UTX3 series).
14. The product can be used for underwater sediment detection (UTX35 series).
15. One-piece design with 3/4" nipples for small pipe installations (UTX38 series).
16. Adjustment setting for different densities of media $\rho > 0.5 \text{ g/cm}^3$ or $\rho > 0.7 \text{ g/cm}^3$ (UTX38 series).
17. With controller delay setting function (UTX38 series).
18. Depending on the customer's preference, the warning light can be selected to follow the fail state or output state (UTX38 series).
19. It is possible to calibrate the action point position of different density materials according to customer's requirements (UTX38 series).