SONAR-410 FTS-ST

Ultrasonic Level Sensor

SONAR-410 FTS-ST represents a probe specifically designed for horizontal tanks (ASTs) and a console.

Description of Functions

When measuring the liquid level, a principle based on pulsed ultrasonic echolocation is utilized. The basis of the ultrasonic probe is a sensor block with two piezoelectric sensors (for measuring the level and the level of sub-product water) and a sound guide, which provides measurement of the liquid level in the tank up to 3.5 meters. The probe has a very simple construction for installation.

Technological Advantages of Freiberg Technologie

- Absence of high requirements to wear resistance and strength of the equipment structure when implementing the method.
- Measurement and calculation results are displayed on the level gauge operator's monitor and transmitted to the facility's Automated Control System (ACS).
- The simplicity of the design of the transducers and their installation method in/on the tanks results in easy servicing and a simplified service support regim, eliminating the need for expensive spare parts.

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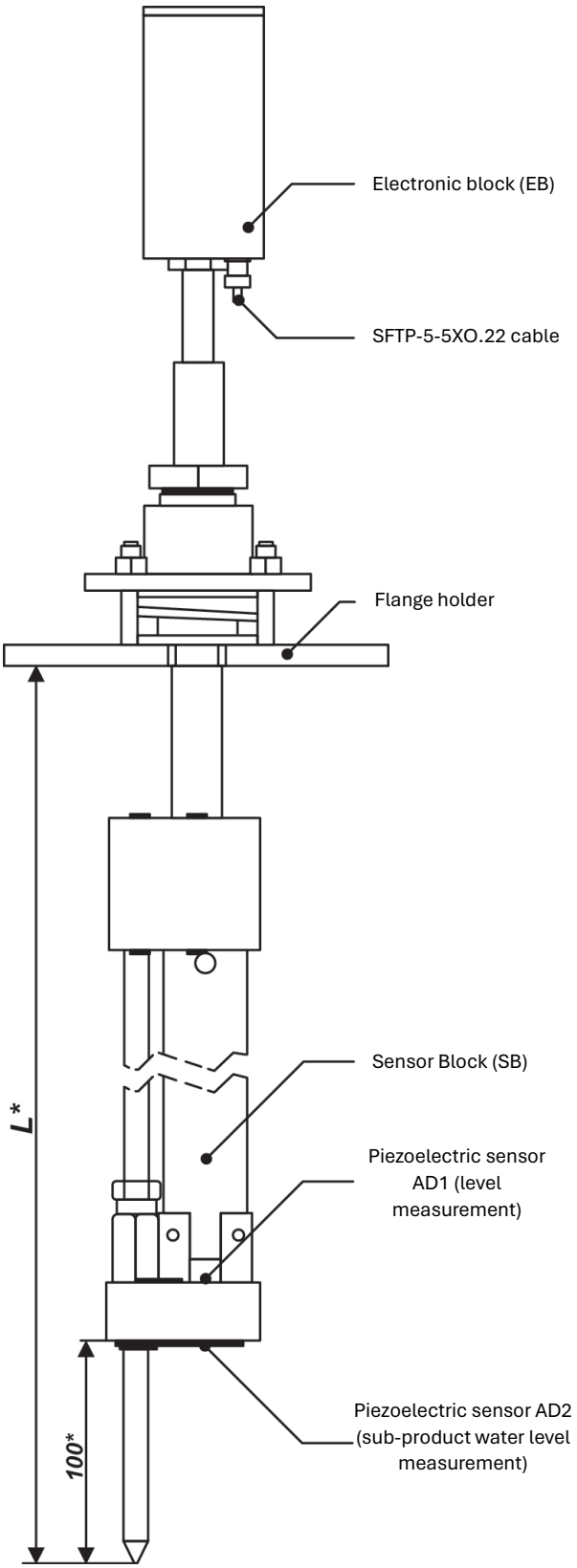

L* - The height of the sensor block (SB) is determined by the order (the height of the controlled reservoir).

100* - The height of the support is determined by the

The main technical characteristics of the level gauge modification FTS-ST

• Range of liquid level measurements: from 100 mm to 3500 mm inclusive.

• Maximum permissible error in liquid level measurement: ±1.0 mm.

• Range of measurements for under-product water level: from 5 mm to 100 mm inclusive.

• Maximum permissible error in under-product water level measurement: ±1.0 mm.

• Range of measurements for liquid temperature inside the reservoir: from -10°C to +30°C inclusive.

• Maximum permissible error in temperature measurement: ±0.5°C.

• Operating temperature of the probe's components:
- sensor block (SB): from -40°C to +50°C;
- Electronic block (EB): from -40°C to +50°C.

• Degree of protection of composite parts of level gauges from water, dust, and foreign solid particles:
- IP 68 - BD sensor block of the probe;
- IP 65 - electronic block BE of the probe.

• The composite parts of the probe have explosion-proof design and explosion protection marking:
- (SB)sensor block: "0Ex ia IIB T4 Ga"
- (EB) Electronic block : "1Ex ib [ia Ga] IIB T4 Gb"
They can be installed and used as follows:
- Sensor block (SB) - in hazardous area zone 0
- Electronic block (EB) - in hazardous area zone 1

• The probe can be used for measuring the level of acoustically transparent liquids that are non-aggressive to the materials of the probe's composite parts in contact with the medium:

- Stainless steel 12X18H9T,
- Fiberglass pipe is covered with antistatic primer-enamel
- Steel St10, vacuum-sealed ceramic.

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