

UQZ MAGNETIC FLOAT LEVEL TRANSMITTER

Summary

UQZ series magnetic float level transmitter uses the magnetic ball float as its measuring element. Through the magnetic coupling principle, the resistance in the sensor is linearly changed, and the change of resistance is converted into 4-20mA standard current signal output by the converter. It can be used in automatic level check, control and record. It is also suitable for level measurement for different kinds of tanks and pressure vessels in refining, petrochemical, chemical, power, and pharmaceutical industries, especially for underground storage tanks. It has side-mounted and top-mounted according to the different installation types.



Operating Principle

UQZ series magnetic float level transmitter is composed of two parts: level sensor and current transmitter. The float synchronously changes with the liquid level, controls the reed pipe's suction or disconnection so that the resistance of the sensor changes linearly, and then the transformation of resistance is converted to 4-20mA standard current signal output by transmitter.

Technical Parameters

Measuring range: 0 ~ 6000mm (It can be made beyond the range)
Flange standard: HG/T20592-2009, HG/T20615-2009 or on request
Power supply: 24 VDC
Output signal: 4 ~ 20mA (with HART Protocol)
Accuracy: $\pm 10\text{mm}$
Ambient temperature: $-40^{\circ}\text{C} \sim +80^{\circ}\text{C}$
Medium temperature: $-20^{\circ}\text{C} \sim +120^{\circ}\text{C}$
Nominal pressure: $\leq 2.5\text{MPa}$
Medium density: $\geq 0.65\text{g/cm}^3$
Medium viscosity: $\leq 1.25\text{St}$
Wetted material: 304, 316L or on request
Explosion-proof: Ex d II CT1-T5/T6 Gb, Ex ia II CT1-T5/T6 Ga
IP Rating: IP66
Nominal diameter: DN150, DN100
Power supply inlet: M20 \times 1.5 (female thread) or on request

Model Selection Table

Model	Code				Contents
UQZ-					Magnetic float level transmitter
	01				Top mounted
	02				Side mounted
		-			
			*		Range (please note the neck length when select 01)
				d	Explosion-proof
				i	Intrinsic safety
UQZ-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Example

UQZ-01-2000d (neck length: 1000mm) magnetic float level transmitter, top mounted, measuring range: 2000mm, explosion-proof type, neck length:1000mm.

Outline Drawing and Installation

The structural form and mounting dimensions are shown in the figure below.

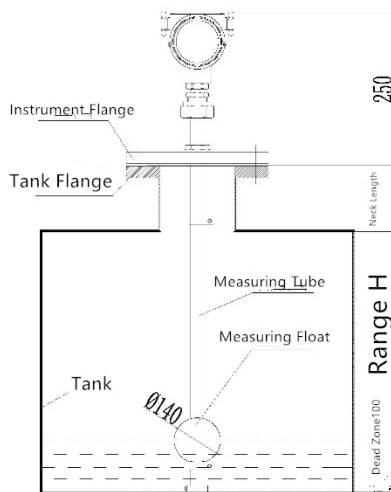


Figure 2

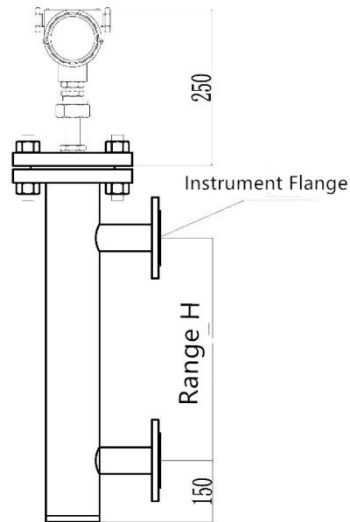


Figure 1

Figure 1 UQZ-01 top-mounted magnetic float level transmitter

Figure 2 UQZ-02 side-mounted magnetic float level transmitter

Ordering Information

- Select by Product Selection Table
- Medium name and density
- Medium operating pressure & temperature
- Wetted material
- Measuring range
- Neck length or measuring rod length
- Flange standard