

GLÖTZL Baumeßtechnik

LEAKAGE WATER VOLUME MEASURING SYSTEM

Type: SWP02
Art. No: 88.10.10

- High measuring accuracy and long-term stability
- Clear measuring procedure
- Configurable for weir or pump operation
- Measuring range:
 - Flow rate 0.1...150 l/s
 - Level of 20...100 cm
- Outputs:
 - Vibrating wire compatible
 - RS485-bus
 - 4...20 mA (optional)
- For cable lengths up to
 - 2 km (vibr. wire comp.)
 - 1.2 km (RS485)
- Illuminated local display



Application

The leakage water volume measuring system can be used for automatic measurement of smallest up to large leakage water volumes. Furthermore, a direct water level measurement can be done up to approx. 1 m (optional 2 m). Of special advantage is the application in case of not-easily accessible locations, e.g. shafts. The system can be used as simple, local measuring system with on-site indication or can be connected to a central measuring station. The applied output signal allow large line lengths without measuring error. In case of bus-operation, several instruments can be operated by a common two-wire circuit.

Description

The leakage water volume measuring system is operating with ultrasonic. The US sensor is temperature compensated. By means of a micro computer, level and flow values can be calculated from the distance raw values and the stored calibration data. In flow operation, the results of the laboratory calibration are used for it.

In pump operation, additionally the circuit control commands for an external pump and it's control are generated from the level data. In this operation

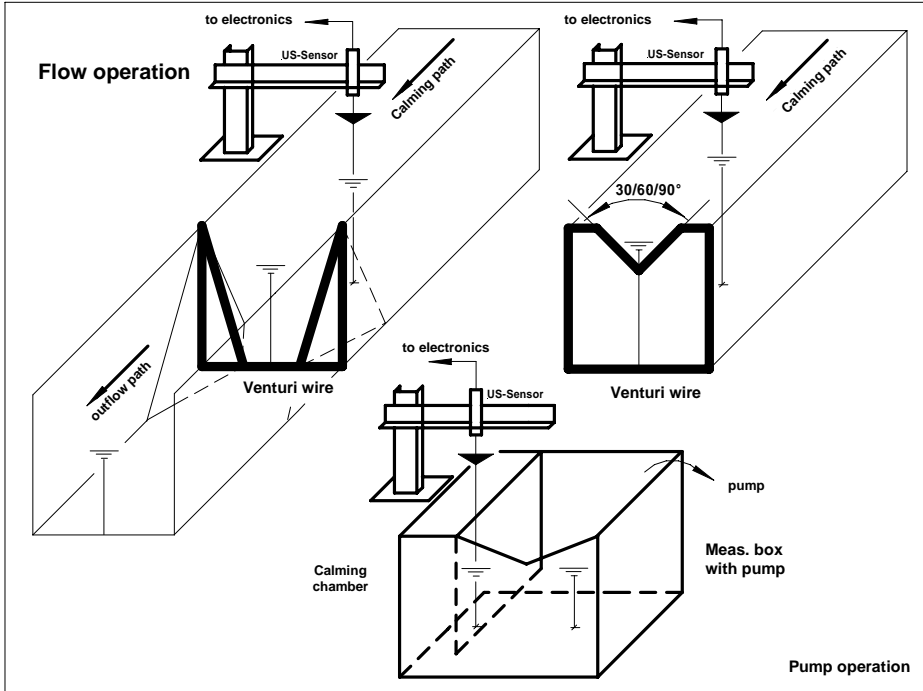
mode, the leakage water flow is calculated by filling time and volume of the measuring box. The indication of the measuring values flow and water level is done by display on site. Then the values are converted into a vibrating wire-compatible frequency signal (or 4...20 mA signal) and can now be measured on site like a conventional vibrating wire transducer (or 4...20 mA sensor) by manual measuring device or can be transferred to a measuring station by sensor cable.

Additionally, a bus-capable RS485 connection is existing. By this, the instruments are interlinkable.

By means of a service instrument, measured data and calibration values can be read and changed in case of a corresponding necessity.

The system is operating with 230 V. The pumps are fed and secured by an independent closing switch. The supply is done with 230 or 380 V dependent on the necessary pumping capacity.

Measuring Principle of Leakage Water Volume Measuring System



meas. principle of leakage water volume meas. system

Models

- Weir operation, with or without measuring box
- Pumping operation with external control box for pump
- Level measuring device

Technical Data Type LD02

Measuring range water level	20 cm ... 1 m, (opt. 2 m)
Measuring range flow	0.01 ... 150 l/s, depend. on size meas. box/weir
Resolution	0.5 %
Accuracy measurement water level	1 mm, opt. 0.5 mm
Operating temperature range	0 ... 60 °C
Output	- RS485, bus-capable - VW, 642...1000 Hz vibrating wire compatible (option) - 4 ... 20 mA (option) all outputs galvanically separated
Overvoltage protection	installed, 2.5 kA
Maximum cable length	RS485: max. 1200 m VW: 2000 ... 5000 m
Supply/current consumption	230 V / 40 mA
Weight:	Electronic unit 1.2 kg Measuring box acc. to model 2.5 kgs ... 50 kgs
Dimensions:	Electronic unit approx. 250 x 220 x 120 mm Measuring box acc. to model, e.g. 50 x 50 x 35 cm or 50 x 200 x 50 cm (also Venturi possible)