wisy®.de
Rainwater harvesting
The complete system

Installation Instructions

Pneumatic level indicator

- Universal pneumatic fill level meter with capsule-type element
- Integrated mechanical or electric pump
- Wall-mounted unit made of shock and impact-resistant plastic
- Continuously adjustable
- Basic equipment includes 10 m plastic measuring tube
- Extension sets for remote measurement up to 50 m
- Connection for hose with 7 mm outer diameter
- Fill level indicated in % irrespective of tank shape

WISY
level indicator

WISY Rainwater Harvesting

Pneumatic level indicator

Please read through these instructions carefully before you attempt to install and use the level indicator!

Description of function

The pneumatic measuring device determines the fill level by calculating the hydrostatic head pressure at the bottom of the tank - this will vary depending on the liquid level in the tank. The pressure is generally measured at a height of 5 cm above the tank base and then converted to a fill level on the clock dial. The clock dial indicates the level in %.

An integral pump (mechanically or electrically operated) is used to build up pneumatic pressure in the measuring system until this pressure is equal to the depth of water in the tank. The needle is now in its maximum position and the pressure generated by the pump has displaced the water column from the measuring tube. Bubbles of air escape from the end of the measuring tube on the tank base and the needle remains in the measurement position.

1 Reference pointer

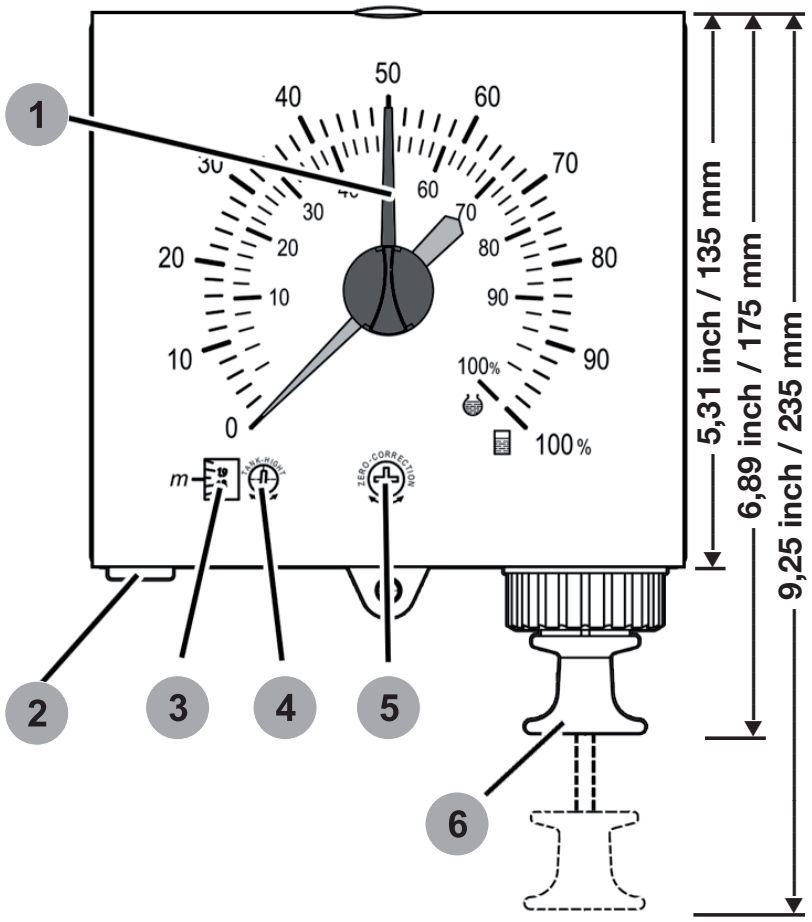
2 Connection for measuring tube

3 Adjustment scale

4 Adjusting screw for measuring range

5 Adjusting screw for zero-point calibration

6 Pump handle



Description of device

Universal, pneumatic fill level meter with capsule-type element and integrated mechanical or electric pump for measuring fill levels in water tanks. Wall-mounted enclosure made of shock and impact-resistant plastic. Continually adjustable to tank heights of between 100 cm and 250 cm (for measurement of water). Basic equipment includes a 10 m plastic measuring tube and a 3 m rubber hose.

Extension sets containing a 10 m plastic measuring tube are available for taking remote measurements at a distance of up to 50 m. Linear capsule element; measuring accuracy +/- 3 % of full scale value. Semi-permanent display, i.e. as you operate the pump, the needle will rise to the % figure that equals the current fill level in the tank, and then drop very slowly down. The air cushion produced in this way protects the capsule element.

Connection for hose with 7 mm outer diameter. Fill level is indicated in % irrespective of the tank shape.

Installation Instructions

1. Installation of device

Using two 4 x 30 round head wood screws, mount the device vertically, making sure that the site in which it is installed is protected against moisture and direct exposure to weather and sunlight.

2. Installation of tube/hose

Install the plastic measuring tube along a continuous gradient towards the tank. Do not bend the tube (to prevent water pockets!). If necessary, use hose clamps to fix it in position.

Install the flexible rubber hose with brass weight in the storage tank in such a way that the weight at the end of the tube is positioned approximately 5 cm above the tank base and is not resting in contact with other tank components (e.g. floating suction filter line).

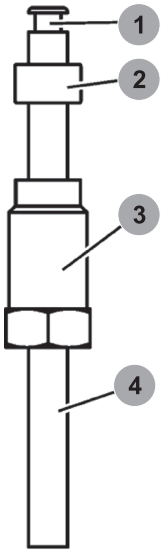
Shorten the hose and/or tube if necessary and connect by means of the brass hose nozzle. Use a clamp ring to secure the rubber hose. If it is difficult to push the plastic measuring tube onto the brass hose nozzle, gently heat the tube by immersing it in warm water.

1 Brass insert (acts as „support“)

2 Rubber seal

3 Compression nut (black plastic) with hole for insertion of measuring tube; is screwed into connector in wall-mounted unit

4 Yellow measuring tube



When connecting the measuring tube to the level indicator, push the connector parts onto the hose in the sequence shown in Figure 2 and fit the brass insert into the end of the tube. Then insert the hose as far as it will go into the connector and tighten the compression nut slightly.

Device setting instructions

(remove the glass cover)

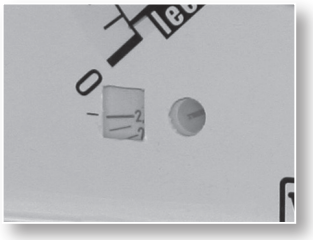
Setting the “empty” marking (0%)

1. For tanks without mains water top-up. Use the zero-point calibration screw (5) to position the needle at “0” (empty). Turn the screw by maximum one revolution to the left or right until the needle is pointing to “0”.

2. For tanks with mains water top-up. Top up mains water in the tank until the float switch closes the mains water inlet. Now set the pointer to “0” (empty) using the zero-point calibration screw. Turn the screw by maximum one revolution to the left or right until the needle is pointing to “0”.

(reinstall the glass cover)

Setting the “full” marking (100%)



(remove the glass cover)

1. For tanks without mains water top-up. Use a tape measure (in metres) to measure the maximum fill level (from tank base to overflow edge of siphon) and set the dimension precisely (to prevent measuring errors) on the adjustment scale (3) using the adjusting screw (4).

2. For tanks with mains water top-up. Use a tape measure (in metres) to measure the maximum fill level (from mains water top-up “off” up to overflow edge of siphon) of the tank and set the dimension precisely (to prevent measuring errors) on the adjustment scale (3) using the adjusting screw (4).

(reinstall the glass cover)

Operation

Mechanically operated level indicator

Quickly pull the pump handle out as far as it will go and then release. In the case of long tubing, repeat the pump process until the pointer remains stationary and then read off the fill level.

Electrically operated level indicator

Press the pump button until the pointer remains stationary and then read off the fill level. If the tubing is tight, the pointer remains in the read-off position for some time.

Accessories

Measuring tube extension for longer distances to storage tank, length 10 m.
Item No.: FA 99 15

Indication errors and causes

1. Needle does not move when pump is operated, or drops very quickly back to 0: Leak in connections or measuring tube.
2. Needle indicates value higher than 100% full or pump piston does not reach end position: The measuring tube is blocked or bent, or the measuring range is set incorrectly.
3. Indication error: Device set incorrectly; check the fill level and correct on the adjustment scale, check the zero-point setting.

Guarantee

Content and scope of the guarantee

The pneumatic level indicator is manufactured with care and subject to stringent quality controls to ensure trouble-free operation. In the unlikely event of defects, we shall replace it.

Limitation of the guarantee

The guarantee does not cover any damage resulting from improper installation of the equipment or use of force.

Period and commencement of the guarantee

WISY is pleased to offer a 2-year guarantee valid as of the date of purchase from a specialist retailer. WISY shall replace defective materials within this period.

® **WISY AG**
D-63699 Kefenrod, Oberdorfstraße 26
Telefon +49 (0) 60 54 - 91 21-0, Fax +49 (0) 60 54 - 91 21-29
Internet: www.wisy.de · E-Mail: info@wisy.de

AHA094-E-V01-20161107 / Technische Änderungen vorbehalten