

VISY-Stick Flex

Low Level Water Float (LLWF) Mounting



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Table of Contents

1	Notes	1
2	Introduction.....	2
3	Recommended Tank Opening Sizes	3
4	LLWF kit – new installation	3
5	Option: Tank Wall Guide	5
6	Water Float Replacement for storage tank fuel change	6
7	Installation and Removal of the VISY-Stick Flex probe	7
8	VISY-Command Setup Procedure	8
9	Water Float Combinations	8
10	Related Manuals	8

1 Notes

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2 Introduction

The Low Level Water Float (LLWF) is a supplement to the Standard Water Float (response height at approx. 150 mm) for VISY-Stick Flex probes and serves to control the water level from a height of approx. 25 mm.

There are 2 variants of the LLWF available: for petrol/E10 fuel, and for diesel fuel.

This document describes the assembly of the Low Level Water Float (LLWF) on VISY-Stick Flex probes.

The LLWF assembly is possible for 3 installation situations and with 1 option:

- **Newly installing the VISY-Stick Flex probe with LLWF**

The LLWF and the VISY-Stick Flex probe are supplied separately for on-site assembly. For details on mounting the LLWF on the probe, please refer to the chapter "*4 LLWF kit – new installation*", *Page 3*. After mounting the LLWF, the VISY-Stick Flex probe is installed in the tank.

- **Retrofitting the LLWF on installed VISY-Stick Flex probes**

There is delivered only the LLWF for mounting on site. For assembly, the VISY-Stick Flex probe must be removed from the tank.

For details on mounting the LLWF on the probe, please refer to the chapter "*4 LLWF kit – new installation*", *Page 3*. After mounting the LLWF, the VISY-Stick Flex probe is reinstalled in the tank.

- **Retrofitting the Water Float and LLWF in case of storage tank fuel change**

For a fuel type change, there is delivered the new Standard Water Float and the Low Level Water Float for mounting on-site. For replacement of the floats, the VISY-Stick Flex probe must be removed from the tank.

For details on replacing the Water Float on the probe, please refer to the chapter "*6 Water Float Replacement for storage tank fuel change*", *Page 6*.

For details on mounting the LLWF on the probe, please refer to the chapter "*4 LLWF kit – new installation*", *Page 3*. After mounting the LLWF, the VISY-Stick Flex probe is installed in the tank.

- **Installing the Tank Wall Guide (Option)**

For short distances between the tank wall and the probe tube, the Tank Wall Guide can optionally be installed to prevent the magnet of the probe from sticking to the side of the tank wall (e. g. in a riser).

For details on mounting the Tank Wall Guide, please refer to the chapter "*5 Option: Tank Wall Guide*", *Page 5*. After mounting the LLWF, the VISY-Stick Flex probe is installed in the tank.

3 Recommended Tank Opening Sizes

The VISY-Stick Flex probe has a weight and a magnet on the probe's foot to provide stability. It is suitable for use in a wide range of liquids and with or without water detection. The VISY-Stick Flex probe with Standard Water Float requires a tank opening with at least 1-½" BSP thread. The 2" reducer is delivered only, if a VISY-Density module is part of the delivery. The Low Level Water Float requires a tank opening of at least 4", or the LLWF must be installed inside the tank. Table 1 lists the recommended tank openings required for the VISY-Stick Flex probe with the Standard Water Float and with the optional Low Level Water Float.

Water float Type	Water Float OD Inch (mm)	Recommended Tank Opening Size	
		inch	mm
Standard Water Float	1.7 (43)	2	50
Low Level Water Float	3.8 (96.52)	4	100

Table 1. Dimensions of the tank opening for VISY-Stick Flex probes

4 LLWF kit – new installation



1. Remove the LLWF housing and the two-piece adapter from the shipping carton.
2. Slide the LLWF housing over the VISY-Stick Flex probe weight (view 1 and 2 in Figure 2).
3. Place half of the adapter around the Water Float. Take the remaining half of the adapter and place it around the opposite side of the Water Float. Be sure to align the pins and holes on the two adapter halves. Once aligned, squeeze the two halves together (view 3 and 4 in Figure 2).
4. Slide the adapter with the Water Float into the top of the LLWF housing until the six latches around the adapter snap into the top of the LLWF housing (view 5 in Figure 2). This is to fix the Water Float and the adapter in the LLWF housing.

Figure 1: LLWF Housing and Adapter

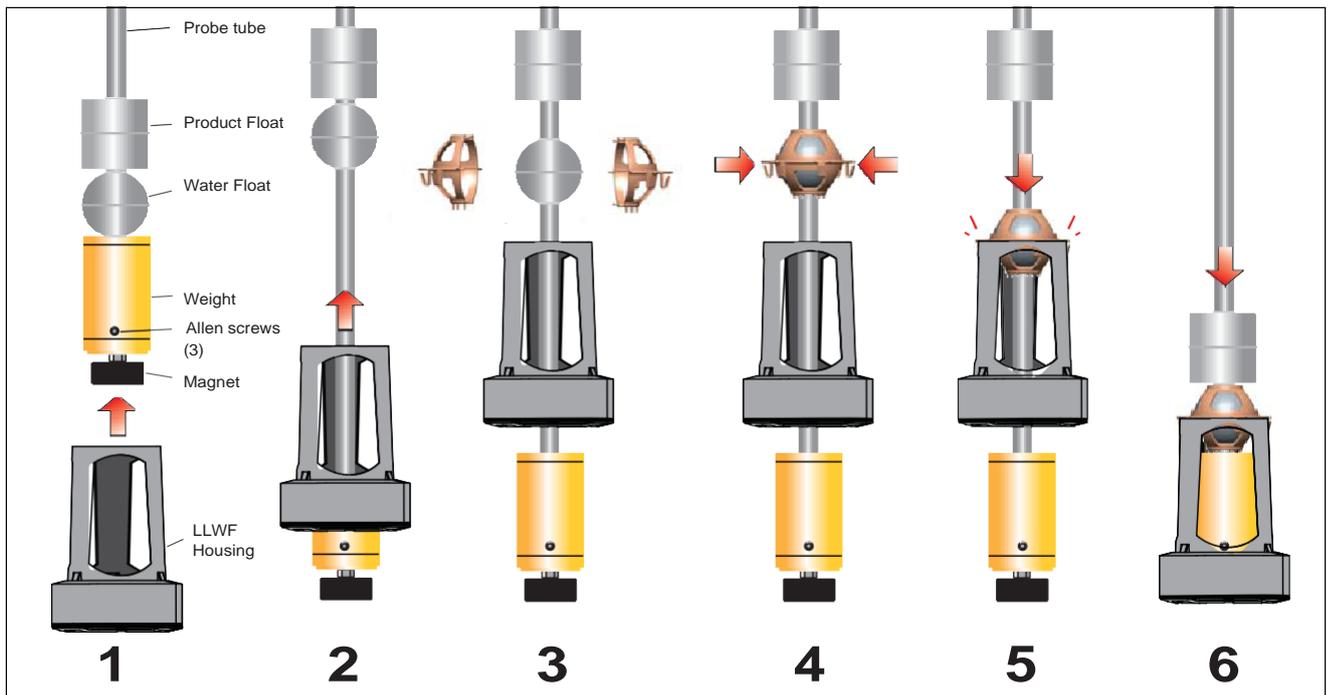


Figure 2: Mounting the LLWF kit

5. Check the six latches on the adapter to ensure they are fully seated under the flange of the LLWF housing. Failure to do so could result in loss of the Low Level Water Float (see Figure 3).

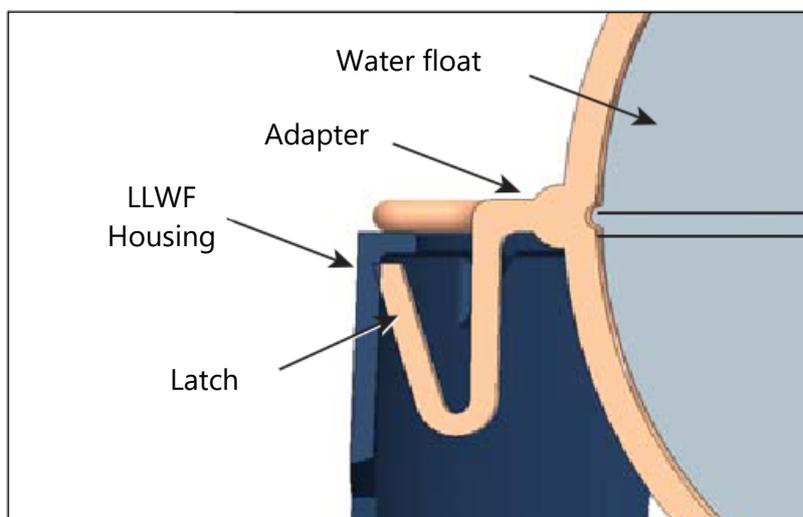


Figure 3: Correct Adapter Latch Position Under LLWF Housing Flange

6. Pull up the adapter. The adapter should not separate from the LLWF housing.
7. Gently lower the LLWF assembly down against the weight (view 6 in Figure 2). Notice the six standoff pins beneath the adapter that prevent the float from contacting the weight. The assembly of the LLWF is completed.

5 Option: Tank Wall Guide



For small distances between the tank wall and the probe tube, the Tank Wall Guide can optionally be installed to prevent the magnet of the probe from sticking to the side of the tank wall (e.g. in a riser).



The LLWF kit must be installed before installing the Tank Wall Guide.



When mounting the probe tube with screw-in unit and additional riser in the tank, a felt resistance between the Tank Wall Guide and the riser pipe is normal.

1. Remove the existing black cup from the magnet beneath the VISY-Stick Flex probe's weight. Be careful not to damage the magnet in doing so.
2. Remove the Tank Wall Guide (see Figure 4) from the shipping carton.

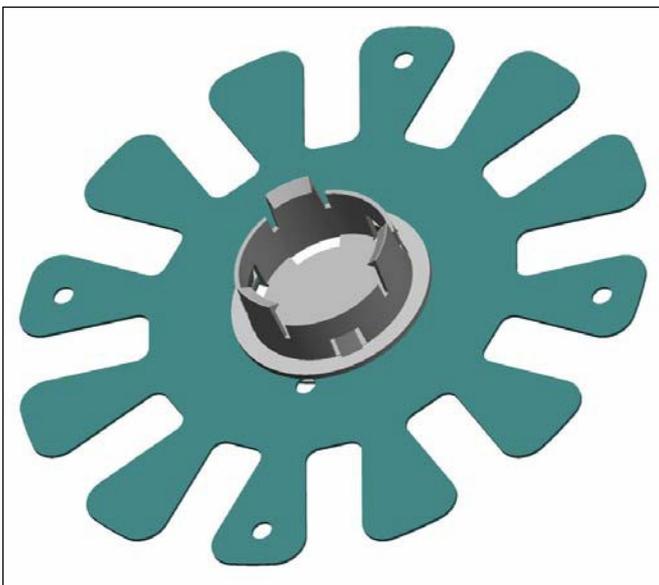


Figure 4: Tank Wall Guide

3. Slide the cup of the Tank Wall Guide onto the magnet ensuring the three flanged extensions of the cup snap over the top of the magnet. The assembly of the LLWF is completed.

6 Water Float Replacement for storage tank fuel change



In case of a change of the stored fuel, the existing Water Float of the VISY-Stick Flex probe must be replaced by a Water Float for the new type of fuel.

1. Carefully uninstall the VISY-Stick Flex probe in the tank, see:



Technical Documentation VISY-Stick Flex Installation, Art. No. 350081.

2. Remove the new Water Float from the shipping carton.
3. Use a felt tip pen to mark the position with a line at the top of the weight on the probe tube and to mark the existing Water Float with an "X" (to distinguish it from the new Water Float).

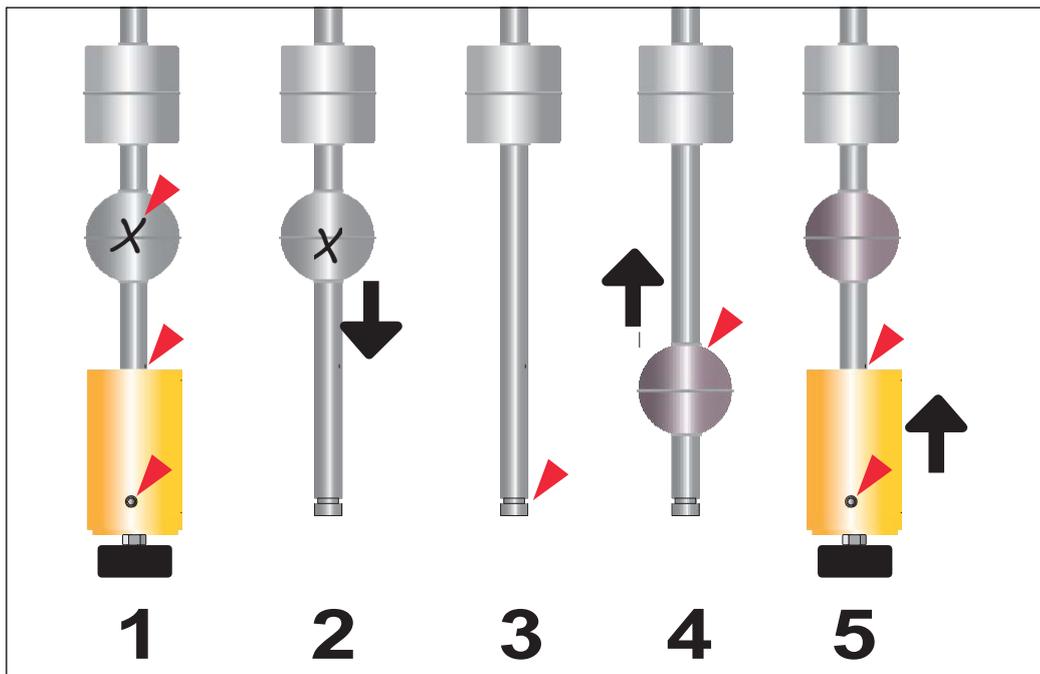


Figure 5: Install the Replacement Water Float

4. Loosen the 3 screws at the base of the weight with an 3 mm Allen key until the weight/magnet assembly can be removed from the probe tube (view 1 in Figure 5). Set the weight/magnet assembly aside being careful not to lose any of the 3 Allen screws from the weight or to damage the magnet.
5. Slide off the old Water Float of the probe tube and discard it (view 2).
6. The groove at the base of the probe tube is used to hold the Allen screws of the weight (view 3).
7. Take the new Water Float and slide it with the "Top" mark upwards onto the probe tube (view 4).



Observe the installation direction of the float, the marking "Top" must point upward!

8. Slide the weight/magnet assembly onto the probe tube as far as it will go (view 5). If a line was marked on the probe tube at the top of the weight, the weight should now touch the line.
9. Loosen the 3 Allen screws to ensure the weight is completely inserted in the tube. Carefully tighten the Allen screws until they are snug. Firmly pull on the weight again to ensure it is securely attached to the probe tube. The assembly of the LLWF is completed.



The end of the probe tube must be fully inserted into the weight for the Allen screws to align properly with the groove in the tube. Otherwise, there is a risk that the weight/magnet assembly may separate from the probe tube.

7 Installation and Removal of the VISY-Stick Flex probe

For details on installing and removing the VISY-Stick Flex probe, see:



Technical Documentation VISY-Stick Flex Installation, multilingual, Art. No. 350081.

8 VISY-Command Setup Procedure

The measurement evaluation unit is adapted to the new components by using the software VISY-Setup. With VISY-Setup the corresponding parameters of the VISY-Stick probe are entered in the menu item "Probes [F4]", e.g. data of the new type of fuel or adjustment of the alarm values (water alarm). For details on configuring see the Technical Documentation VISY-Setup.

9 Water Float Combinations

Fuel	Associated Water Float Variants	Art. No.
GASOLINE/E10	Standard Water Float for Gasoline/E10	908483
	Low Level Water Float for Gasoline/E10	908784
DIESEL	Standard Water Float for Diesel	908480
	Low Level Water Float for Diesel	908785

Table 1: Water Float Combinations

10 Related Manuals



Technical Documentation VISY-Stick Flex Installation, multilingual, Art. No. 350081



Technical Documentation VISY-Setup, Art. No. 207158



Technical Documentation VISY-Command VI-4, Art. No. 207184



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