



## Instruction manual

# TU 950

FLOW CELL FOR TU 8720

Valid also for models:  
TU 910.090  
TU 950.001





# 1 PRODUCT OVERVIEW

The flow cell TU 950 is designed for turbidity probe TU 8720.

The TU 950 cell, suitable for low turbidity value, is equipped with a needle valve for the regulation of flow in the cell and to maintain pressure in the liquid in it.

These cells are supplied complete with:

- support for wall mounting;
- inlet/outlet tube.

The terminal part is provided with a removable cap for cleaning and for optional self-cleaning devices/accessories.

# 2 SPECIFICATIONS

Sample flow	0.2 ÷ 0.5 l/min
Temperature	0 ÷ 50 °C
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Sample pressure	max 6 bar at 20 °C
Body	PVC
Seals	NBR
Shutter	POM
Fixing	Thread G 1 1/4"
Fittings	1/8" for 4x6 mm tube
Tube	Polythene 4x6 mm, l= 5m
Flow regulation	Needle valve

# 3 INSTALLATION

## 3.1 PROBE PREPARATION


Check the O-ring presence.

Insert the probe inside the flowcell and screw it by hand.

## 3.2 MEASURING CELL

- 1 Fix the cell holder to the wall with the mounting clip.
- 2 Install the cell horizontally with the fluid outlet fitting upward.

This installation is required to allow the liquid to completely fill the measuring cell.

-  In case of liquid samples in pressure is necessary to adjust the output stream with the needle valve installed on the cell.
- In this way the liquid pressure within the cell is maintained avoiding the gases, dissolved in the liquid separating due to the reduction of pressure, create tiny air bubbles able to alter the value of the measurement (in particular turbidity value in the range 0 to 4 NTU).

### 3.3 SAMPLING LINE

Take the liquid sample from the process using preferably a black tube to prevent the formation of algae inside (supplied by TU 950).

Minimize the distance from the sampling point to the measuring cell. The response time of the sample turbidity change increases in proportion to the distance.

If the sample is taken from a pipe in the process, it is recommended to provide it from the center of the tube.

Sampling from the bottom could lead sediments to the measuring cell, sampling from the top of the tube could lead air bubbles to the cell. In both cases it would result in corruption of the measurement.



Send the flow of the liquid sample in the measuring cell, wait for its complete filling and stabilization of the measurement.

In cases of low turbidity values the stabilization can last for an hour to obtain the perfect cleanliness of the hydraulic circuit and the elimination of air bubbles.

Regulate the flow of the desired value with the cell's needle valve, making sure the flow is not interrupted.

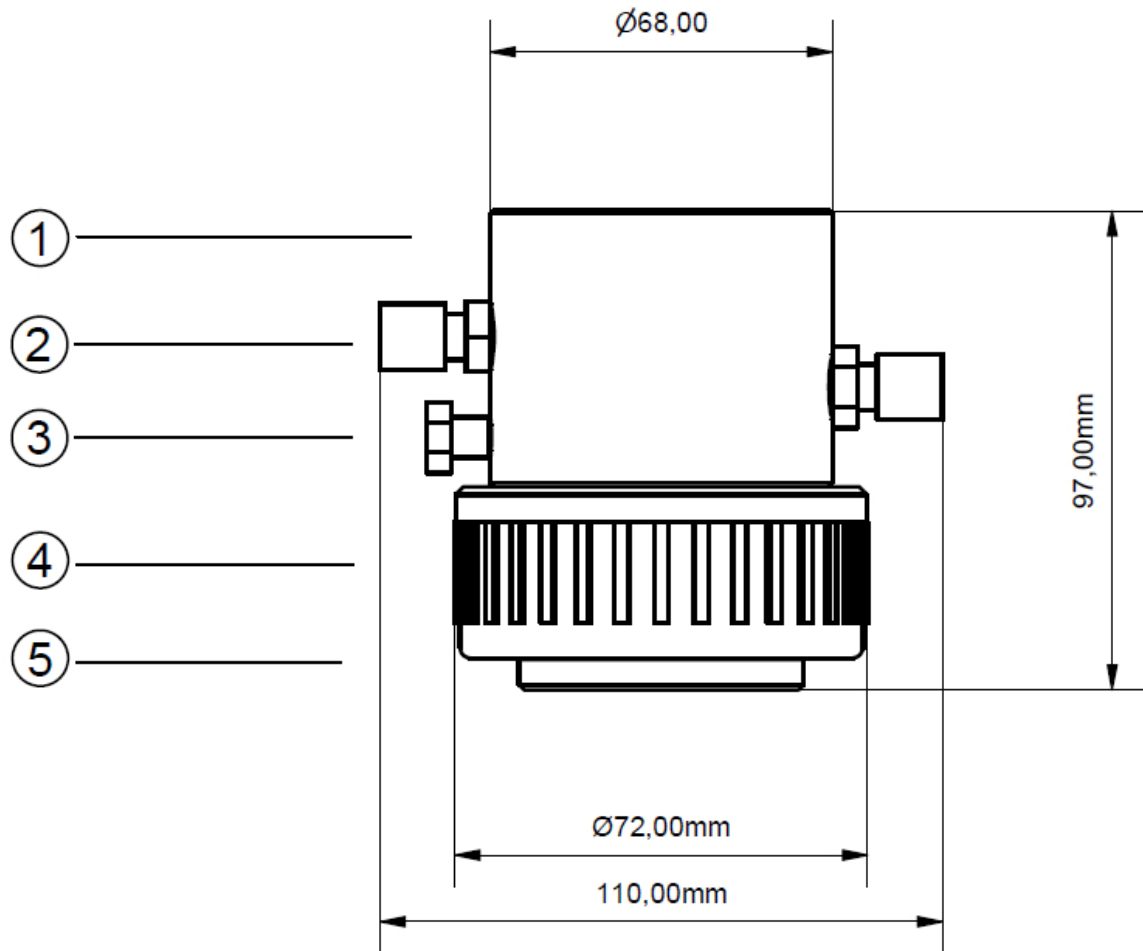
The flow in the cell must be between 0.2 and 0.5 l/min approximately.

The greater the flow, the higher the response speed of the system.

-  The needle valve of the cell regulates the flow in the measuring cell while keeping it pressurized.
- Do not completely open the needle valve to avoid liquid leak.
-  Any operation on the cell or on the probe has to be done after removing the inlet pressure.

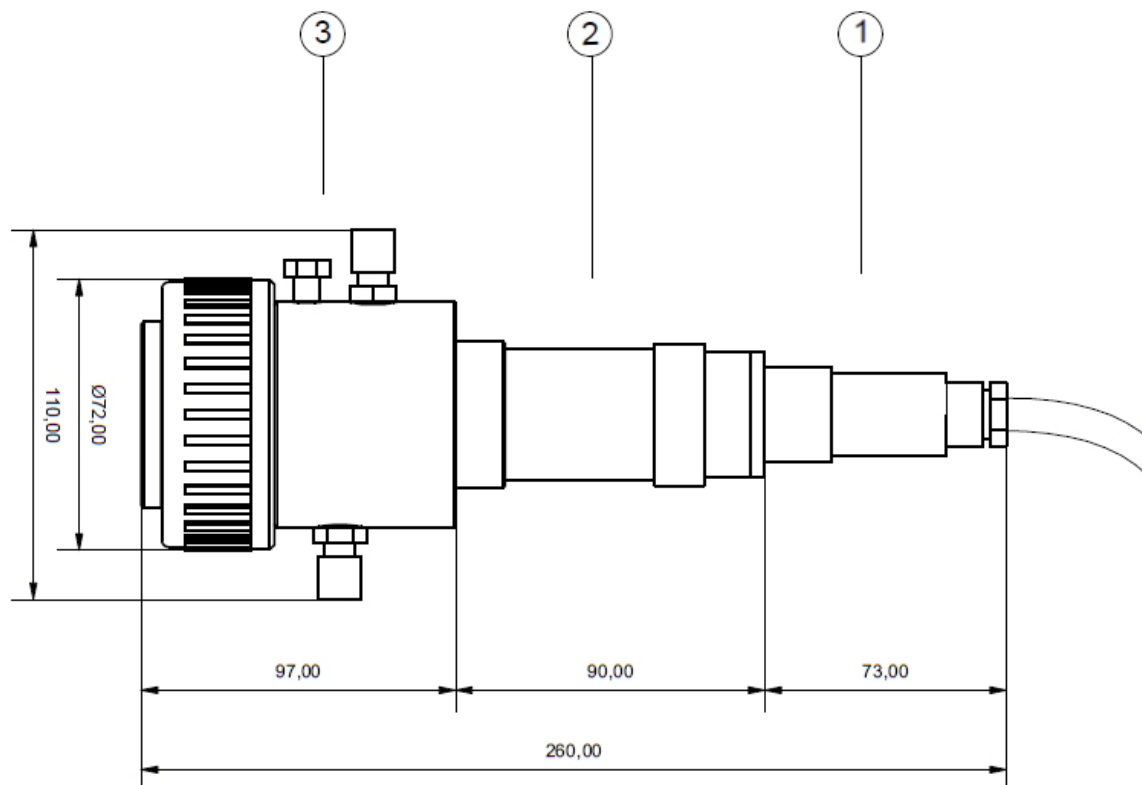
## 4 DRAWINGS

### 4.1 DIMENSIONS



- 1 TU 950
- 2 Pipe fitting 4/6 - 1/8" PP
- 3 TU 8720 cell shutter
- 4 Threaded ring nut PVC 2"
- 5 Cap for TU 950

## 4.2 INSTALLATION



- 1 7-pin connector
- 2 TU 8720 probe
- 3 TU 950 cell





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