



H101-LG

Compatible with

- Super Z galvo stages (SP5/SP8)

Compatible with the following Okolab Controllers

- H101-BASIC-BL
- H101-CRYO-BL

IST-627_rev02

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1. Components and dimensions

H101-LG includes the following components:

- **Chamber Lid** uniformly heated by means water circulation in water tight channels.
- **Sample Holder** for 35 Petri dish.
- **Chamber Base** uniformly heated by means water circulation in water tight channels.
- **Holder** to fix the chamber to the stage.

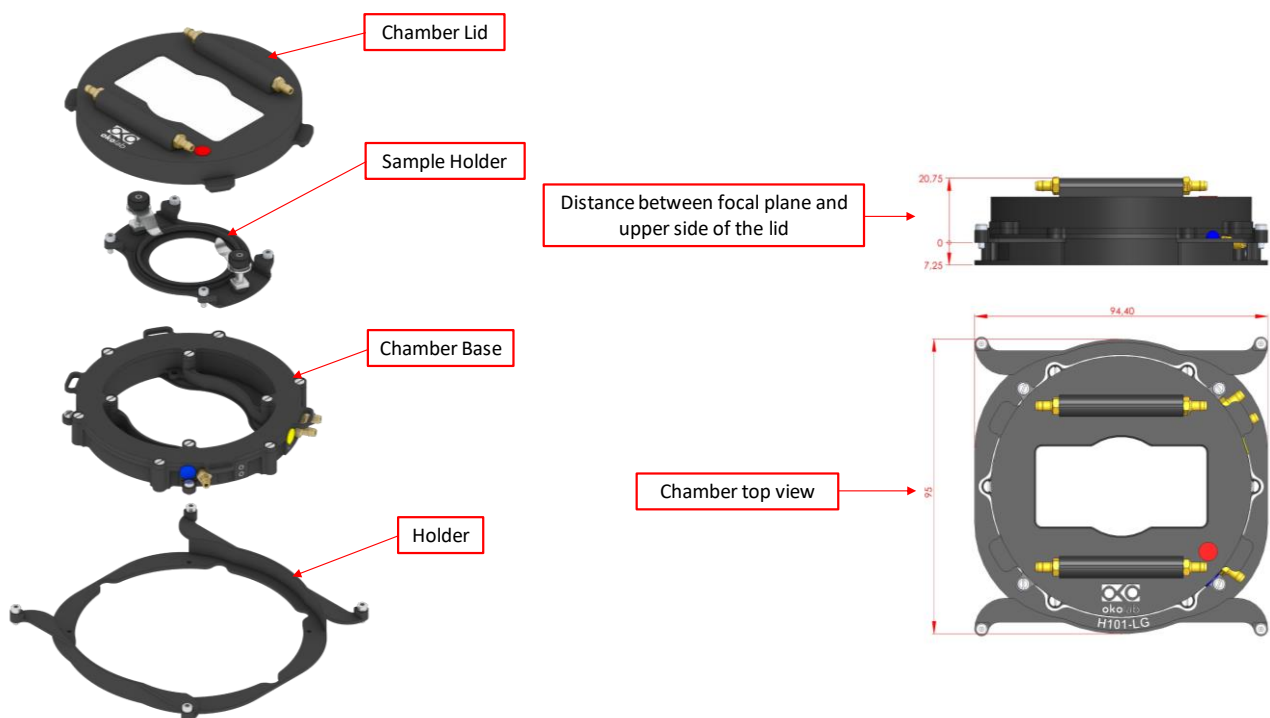


Figure 1. H101-LG - Components and Dimensions.

2. Available Sample Holder

The following sample holder is available for H101-LG

NOTE: Please contact info@oko-lab.com if you cannot find the sample holder you are looking for. Additional sample holders can be realized upon request.

H101-LG-1x35

Holder for 35mm Petri-dish



Figure 2 H101-LG-1x35 Sample Holder.

3. Insertion of the Sample Feedback Temperature Sensor

Insert the Sample Feedback Temperature Sensor through the one of the openings located in the H101-LG (see Figure 3).

To read the medium temperature and realize a self-calibration of the chamber, fix the Temperature Sensor tip with adhesive tape on the bottom of the medium volume of the sample holder. For more information about the self-calibration, please refer to the user manual of the Okolab controller in use.

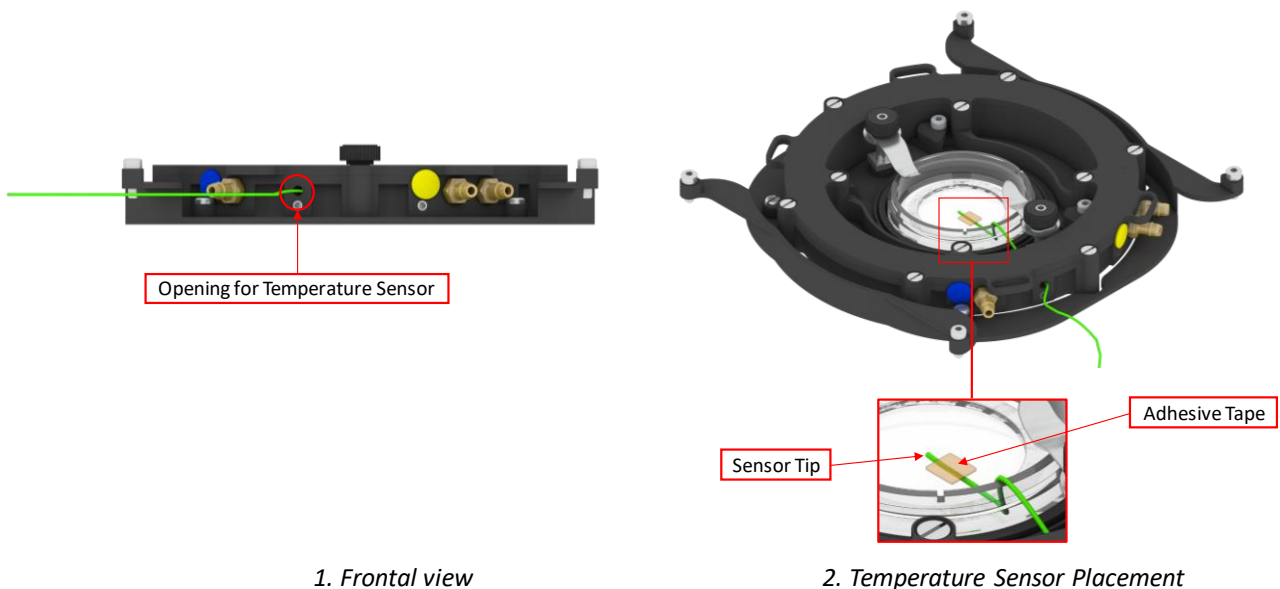


Figure 3. Insertion of the temperature sensor inside the chamber.

4. Working with H101-LG-1x35

4.1 Available space rings

Spacing rings accounting for variability in dish diameter from one manufacturer to another are also included. Figure 4 shows ring selection guide diagram for 35 mm dish.

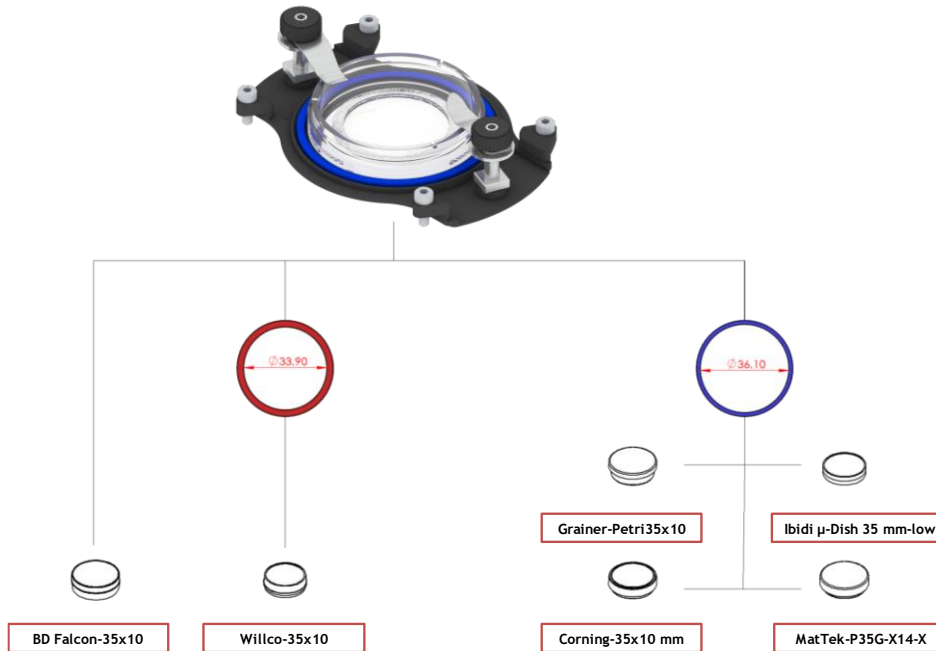


Figure 4. Ring selection scheme for 35 mm dish.

4.2 Introduce sample holder in the chamber

Flat springs prevent movement of 35mm petri-dish inside the opening on the Chamber Base (see Figure 5).

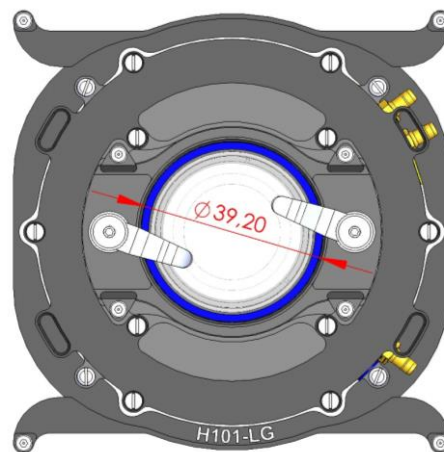


Figure 5. Base Top view.

Insert the H101-LG-1x35, follow the steps shown in Figure 6 and listed below:

1. Accommodate the H101-LG-1x35 into the Chamber Base and insert the four captive screws of the H101-LG-1x35 into the dedicated slot in the Chamber Base (see image 1 in Figure 6),

2. Fix the H101-LG-1x35 sample holder to the Chamber Base. Fasten the four captive screws clockwise by using a 1.5 mm hexagonal key (see image 1 in Figure 6),
3. Turn the flat springs (see image 2 in Figure 6) and insert the spacing ring you need (see image 3 in Figure 6),
4. Insert the petri-dish (see image 4 in Figure 6) into the sample holder.
5. Lock the petri-dish by using the flat springs (see image 5 in Figure 6).
6. Close the Chamber Base with the Chamber Lid (see image 6 and image 7 in Figure 6).

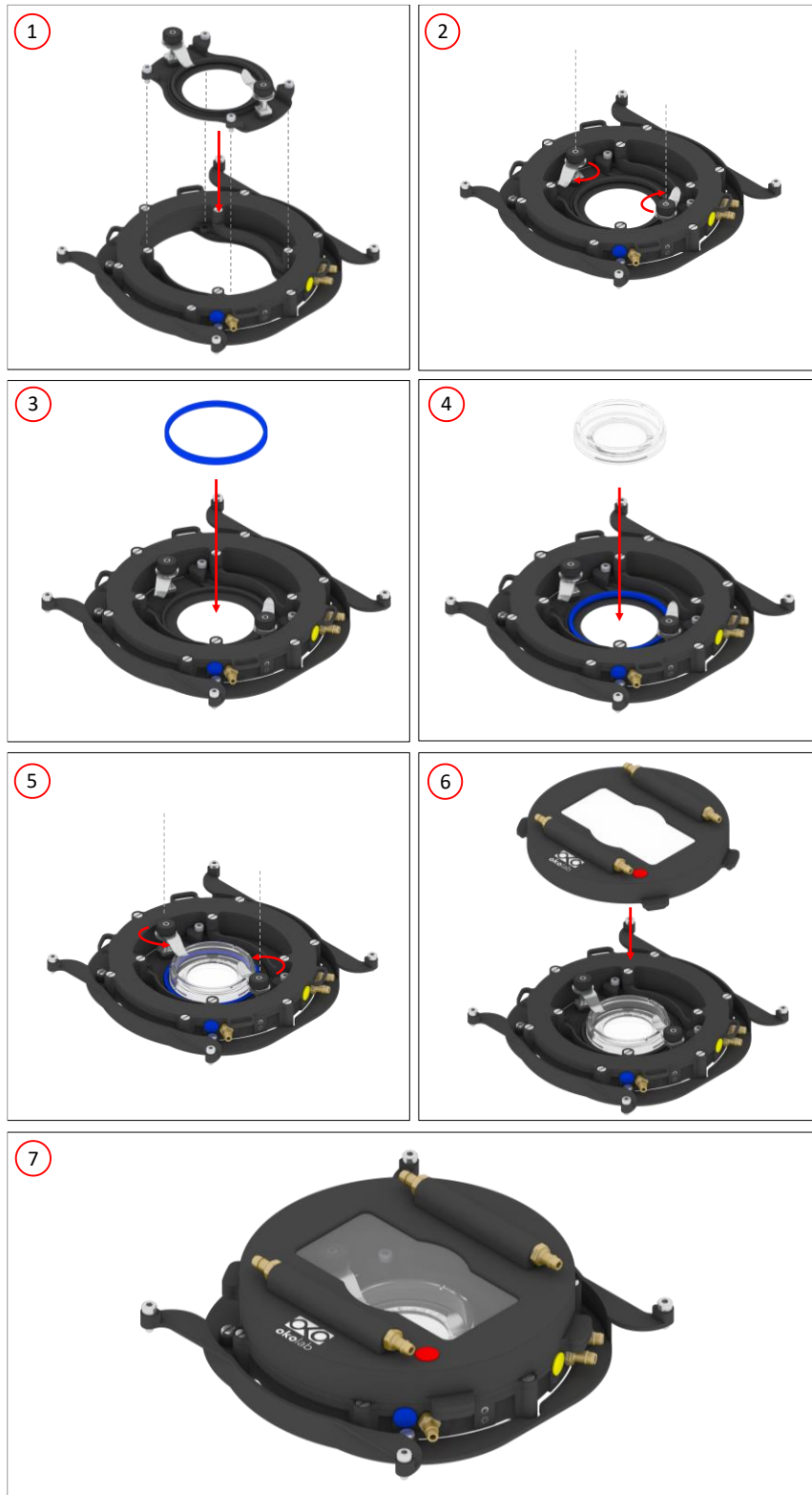


Figure 6. Working with 35 mm petri dish.

5. Connection of the Gas Supply

A single silicon tubing carries out gas from the Okolab Controller to the H101-LG. Silicon tubing connects to a gas output - brass opening indicated by a yellow dot, see Figure 7. Connect by gently pushing silicon tubing onto brass opening.



Figure 7. Connection of the gas supply.

6. Connection with the thermostatic bath

Connect the silicon end of Red Marked Tube (the one with a red tape) to the brass connector indicated by a red dot on the Chamber Lid (1 in Figure 8). Red Marked Tube is used to connect the water OUTPUT port of the thermostatic bath to the water INPUT port of the chamber.

Connect the silicon end of Blue Marked Tube (the one with a blue tape) to the brass connector indicated by a blue dot on the Chamber Base (2 in Figure 8). Blue Marked Tube is used to connect the water INPUT port of the thermostatic bath to the water OUTPUT of the chamber.

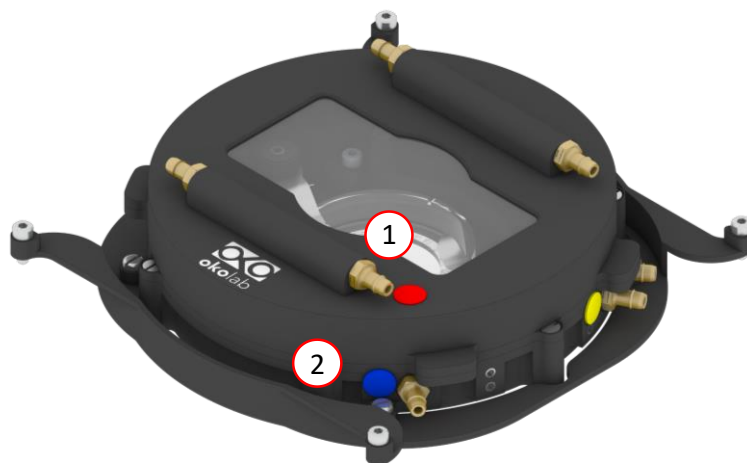


Figure 8. Connection with the thermostatic bath.

Use one of the two single Tygon tubes to connect the Chamber Lid to the Chamber Base in order to carry out the water from the Chamber Lid water jacket to the Chamber Base one, see 1 in Figure 9. Connect the tube to the non-labelled brass opening.

Use the other Tygon tube to connect the two brass openings on the Chamber Lid, see 2 in Figure 9.

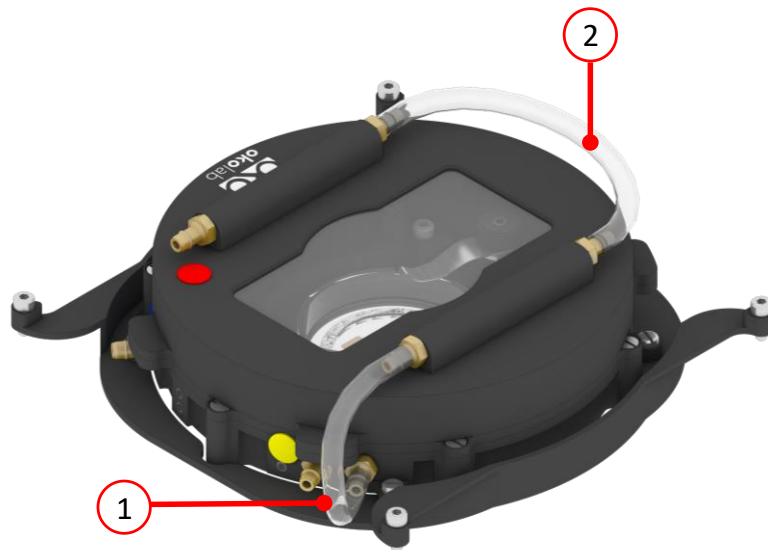


Figure 9. Communication tubing between the Base and Chamber Lid

7. Working with Perfusion

H101-LG features 4 perfusion holes on the Chamber base for the insertion of perfusion tubing up to 2.0 mm in outer diameter. Small screws plug the perfusion holes when not in use. Remove the small screws as necessary with a 1.3 mm hexagonal key before introducing perfusion tubing.

Figure 10 shows the location of the perfusion holes.

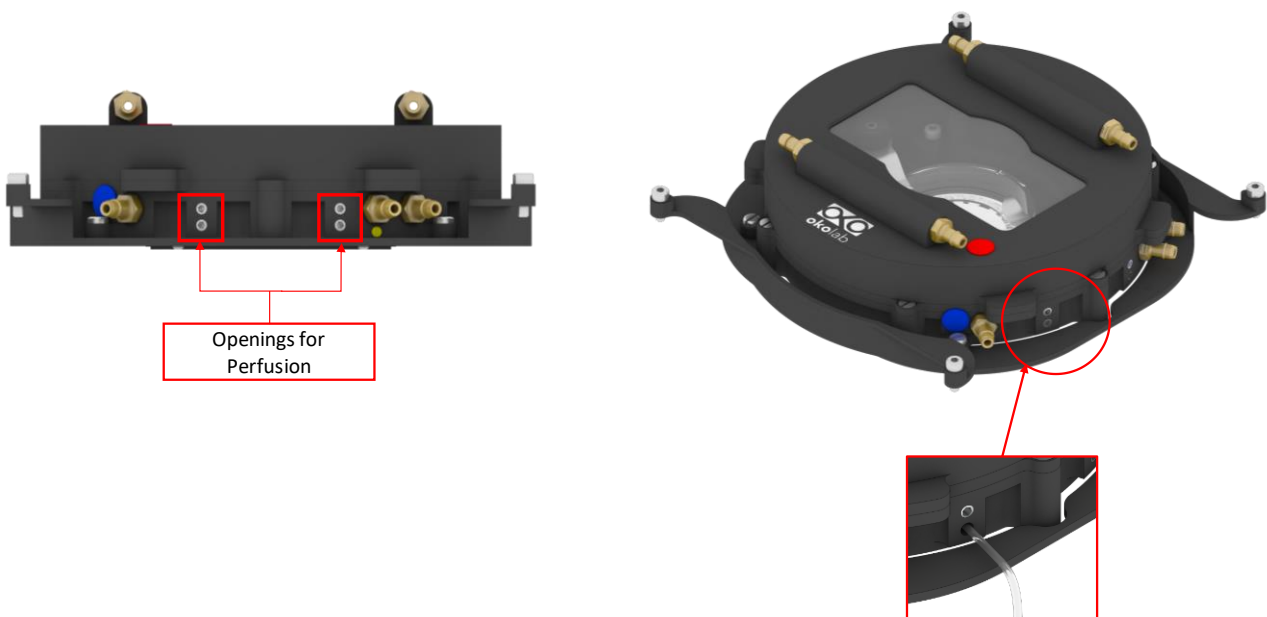


Figure 10. Perfusion

8. Connection of the Chamber with stage

1. To place the H101-LG on the stage, fix the Chamber Base to the stage with the four captive screws by using a 1.5mm hexagonal key on the Chamber base (see Figure 11).

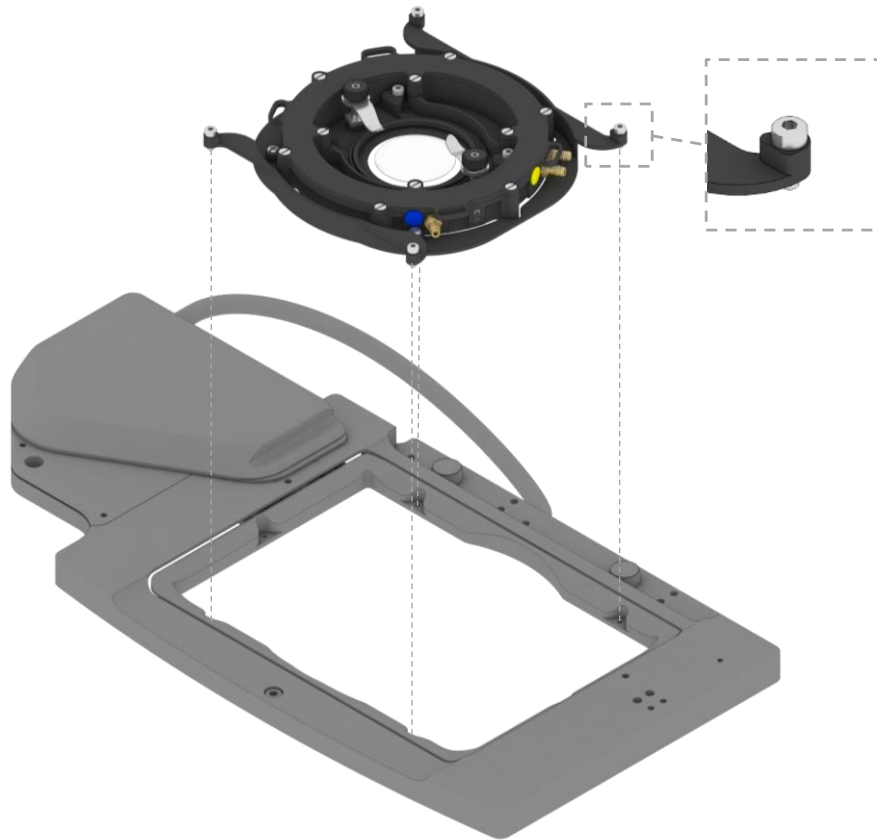


Figure 11. How to assemble the chamber to the stage.

NOTE: If you need replacement screws, contact OKOLAB to receive assistance.

9. Cleaning

- Turn the system off and pull the mains plug out the socket
- Remove the lid from the chamber main body, and keep it separate from the chamber main body while the chamber cools down.
- To clean the body and the glass lid of the chamber, wipe with a soft micro-fiber cloth. For stubborn smudges, you can damp the soft micro-fiber cloth with ethyl alcohol (product code UN1170). Do not put any liquid directly on the chamber. While cleaning the glass lid, do not apply strong force to the surface of the glass lid because it can be damaged.