

**Assembly Instructions**  
**SGHF-HT**  
**Protective Housing**



**Proper Use**

The SGHF-HT Protective Housing with water cooling is exclusively used for ILD sensors series 1710 and 2310 and also for ILD2300-200, ILD1700-500 and ILD1700-750 with housing sizes of M and L. Its maximum ambient temperature is 200 °C (392 °F).

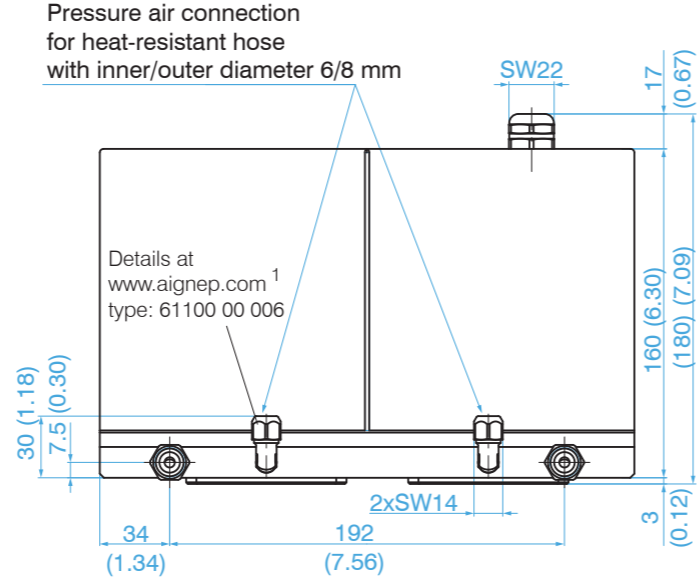
**Warning**

Before mounting the ILD sensor to the SGHF-HT Protective Housing and before sealing, the insulation inside as well as the cover (part 3) must be dried.

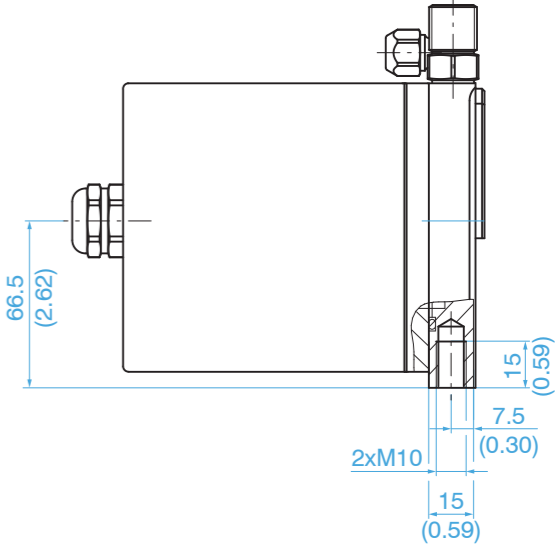
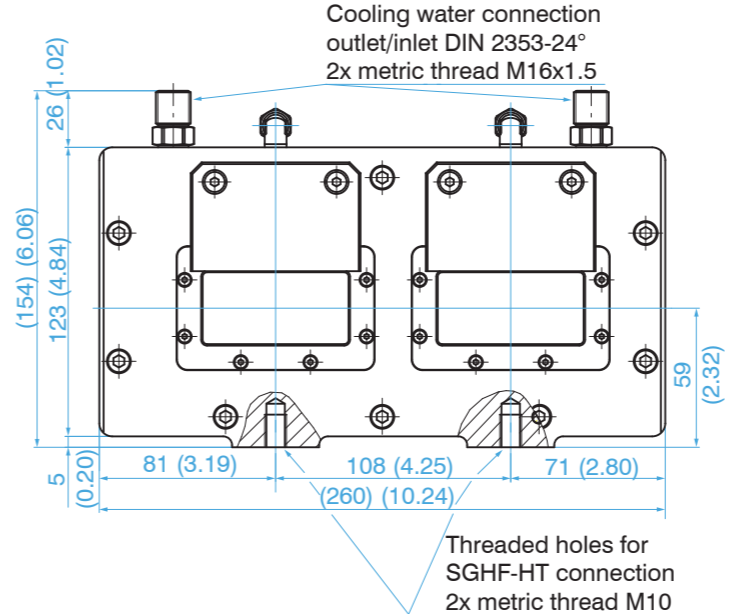
**Operation Conditions**

- Cooling water temperature, inlet 11 °C
- Flow rate 2 l/min
- Ambient temperature max. 200 °C

**Dimensional Drawings**



*Dimensions in mm (inches), not to scale*



1) <https://www.aignep.com/eng/Push-On-Fittings/61000-Series-INOX/EL-BOW-MALE-ADAPTOR-TAPER>

### Process of Drying of Insulation Cover

The SGHF-HT Protective Housing is supplied in an assembled state by Micro-Epsilon Messtechnik GmbH & Co. KG and therefore it must be disassembled before drying and insertion of the ILD sensor.

#### - Dismantling of the SGHF-HT Protective Housing:

- Loosen the four countersunk head screws M5x12 DIN 7991 and detach both nozzles (part 1) which are used for air pressure.
- Loosen the ten cap screws M6x16 cylindrical head DIN 912 and pull main flange with a cooling plate (part 2) out of the cover.

ⓘ Do not damage the O-ring at the forefront of the main flange.

- Loosen the cable gland (part 4) and detach it from the cover (part 3).

#### - Process of Drying

After dismantling the SGHF-HT Protective Housing, the cover is ready to be dried.

- ⓘ Remove all remaining parts from the cover with the exception of the insulation (sealing).

Other parts of the SGHF-HT Protective Housing must not be dried!  
> Destruction of other parts

- Put the cover (part 3) into the kiln which was heated to 250 °C - 300 °C (428 °F - 572 °F) for three hours.

- ⓘ Make sure that the temperature during process of drying is not changed.

The cover may be exposed to air humidity only for a maximum period of five hours. Furthermore, mounting of the SGHF-HT Protective Housing does not have to be performed in a conditioned room.

Nevertheless, relative air humidity should not exceed 50 % and temperature should not exceed 25 °C (77 °F).

Due to isolation, the cover retroactively absorbs air humidity and therefore installation of the ILD sensor and mounting of the SGHF-HT Protective Housing must take place immediately after the cover (part 3) has cooled down to ambient temperature.

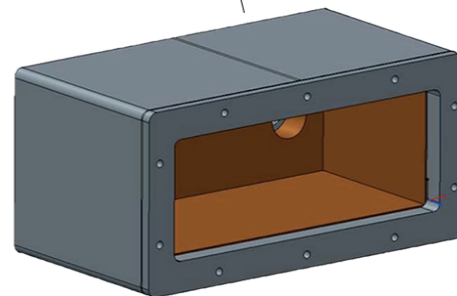
#### - Mounting of the SGHF-HT Protective Housing

- Mount and tighten the cable gland (part 4) to the cover (part 3). Check for O-ring in the groove of the cable gland (part 4).
- Mount the ILD sensor to the main flange and pull the cable through the cable gland.
- Insert the main flange (part 2) with the attached ILD sensor to the dried cover (part 3) and tighten the ten cap screws M6x16 cylindrical head DIN 912.
- Mount both nozzles (part 1) and tighten the four countersunk head screws M5x12 DIN 7991.
- Tighten the cable gland (part 4).

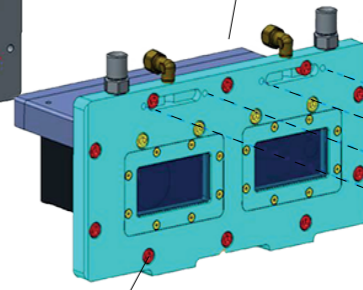
Cable gland (part 4)



Cover with insulation (part 3)

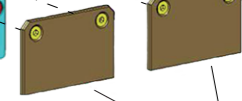


Main flange with a cooling plate and ILD sensor (part 2)



10x screws M6x16

4x screws M5x12



Nozzles (part 1)

- ⓘ In some special cases it is necessary to reopen the SGHF-HT Protective housing once more after drying. This opening must not take longer than three hours and can only be done once since isolation retroactively absorbs air humidity. In any other case, the process of drying must be repeated.

- ⓘ All processes have to be done according to the assembly instruction.