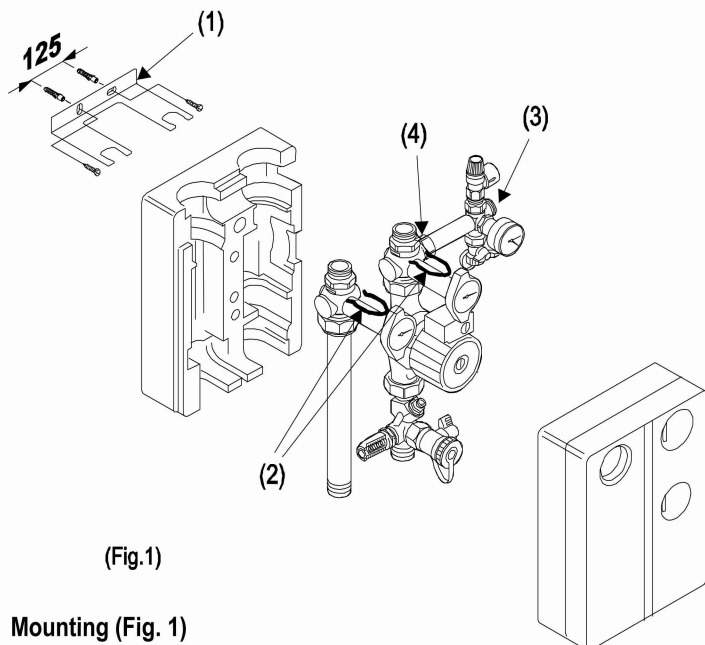


# Installation instructions

## FlowBox Solar



### Wall mounting



(Fig. 1)

### Mounting (Fig. 1)

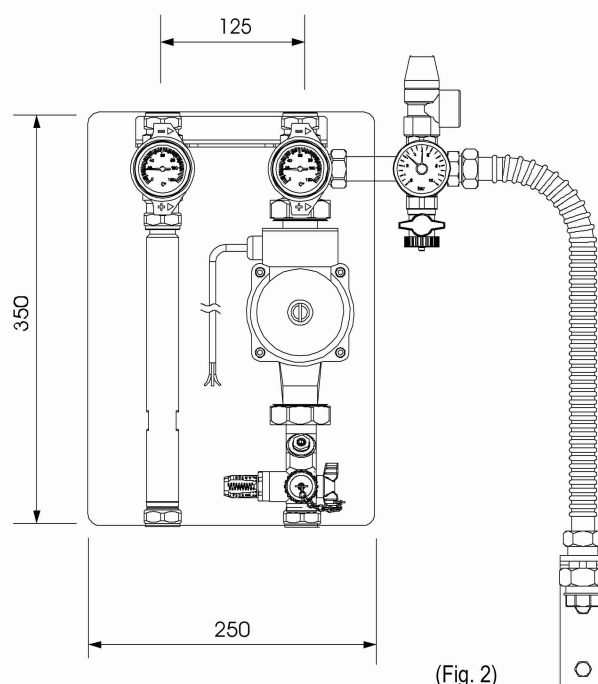
- Fasten the wall bracket (1) with a center spacing of 125 mm using plugs and screws that are suitable for the surface in question.
- Push the FlowBox Solar module from the front into the slots provided on the wall bracket. Then secure the module in place by attaching the supplied clamping rings (2) beneath the retainer plate.
- After mounting, it must not be possible to easily pull the module towards you and off the bracket. Removal is described below.  
**Ensure the correct mounting orientation of the flow fitting!**
- Connect the safety assembly (3) (supplied separately with the module) to the outlet of the return flow fitting (4) above the pump using the G 3/4" union nut. The package accompanying the module contains a suitable Gasket.
- Mount the wall bracket for the expansion tank at the side of the module. Ensure that the corrugated hose is long enough for connection of the expansion coupling and the 3/4" male thread of the safety assembly!
- Connect the system up to the solar energy circuit.
- After the system has been filled and a complete seal-tightness check performed, attach the front section of the heat insulation.
- **Removing the module from the wall bracket:** use a screwdriver or similar tool to pull the clamping rings off towards you.  
**N.B.: the FlowBox Solar module is now loose! Make sure that it does**

### Torque for connections with flat seals

Torque values when tightening the screw connections using Reinz AFM 34 gaskets, thickness 2mm:

- 3/4" Screw connection 35 Nm**
- 1" Screw connection 55 Nm**
- 1 1/4" Screw connection 90 Nm**
- 1 1/2" Screw connection 130 Nm**

As the gasket may settle over time, it may be necessary for the customer To re-tighten the screw connections.



(Fig. 2)

### Mounting the clamping ring screw connections

- Cut off the copper pipe at a right angle using a pipe cutter and debur the edges of the pipe.
- First push the clamping ring nut over the pipe, then the clamping ring.
- Insert the pipe with clamping ring nut and clamping ring into the screw connection and push up to the stop.
- Tighten the clamping ring nut by hand.
- If necessary, tighten the clamping ring screw connection further using a Sw30 fork/open-end spanner (approx. 45 Nm).

### Connection safety valve

- A blower line leading to a collection container (e.g. empty canister of the solar heating medium) must be fitted to the safety valve. This permits collection and reuse of any heating medium which escapes in the event of malfunction.

### Heat insulation cladding

- The heat insulation cladding is for thermal insulation and protection during transport.

### Connection plug for filling and draining

- Both the safety assembly and the FlowGuard are fitted with a fill-and-drain valve for filling and draining the system.

### Safety assembly

- Consisting of safety valve, pressure gauge, fill-and-drain valve, and an expansion tank connection. In order to reduce the thermal load, the safety assembly is installed in the return flow line.

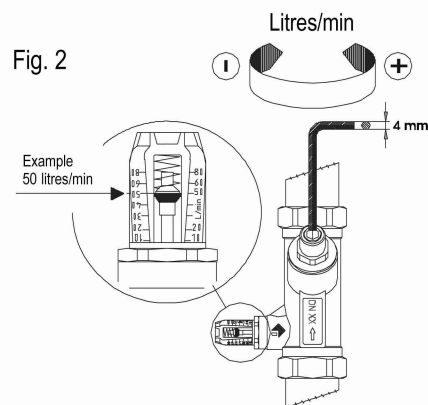
# Installation instructions

## FlowBox Solar



### Flow volume adjustment (Fig. 2)

- The flow volume is set on the regulating valve using an SW 4 Allen key.
- The set volume can be directly read on the scale.
- The valve stroke is spread over several spindle revolutions, thereby permitting a high level of setting precision.
- The setting values are based on the calculations for the system.



### Gravity flow stops (Fig. 3)

- The gravity flow stop in the collector flow line must be open for filling, venting and rinsing of the system. It is open when the ball valve in question is in the 45° position. The ball of the ball valve presses the gravity flow stop open.
- The ball valves must be fully open for operation of the system.

Fig. 3



0° = ready for operation

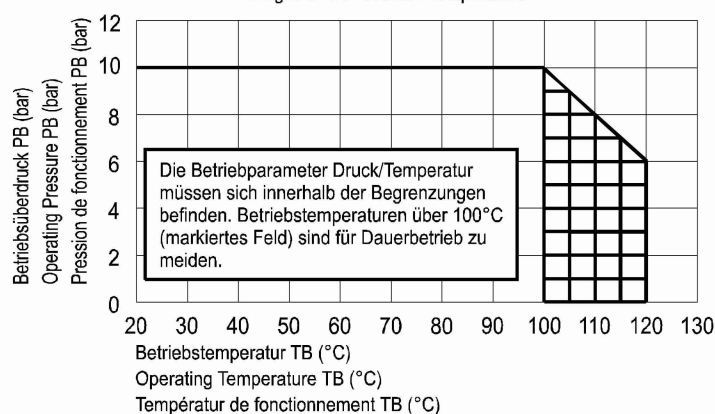


45° = open



90° = closed

Druck / Temperaturdiagramm  
Pressure / Temperature Diagram  
Diagramme Pression / Température



#### Hinweis

Die Betriebsparameter Druck/Temperatur müssen sich innerhalb der Begrenzungen befinden. Betriebstemperaturen über 100°C sind für Dauerbetrieb zu meiden !

#### Caution

Pressure and temperature should be kept within the limits shown in the adjacent diagram. Avoid temperatures higher than 100°C during continuous operation!

#### Attention

Il faut bien maintenir pression et température entre les limites et éviter des températures de fonctionnement au-dessus de 100°C pour service continu!

### Technical data

Fittings	: hot-pressed brass, Ms58
Pipe systems	: precision pipes
Flowmeter	: high-grade impact-proof and temperature-resistant plastic
Spring - flowmeter	: stainless steel
Heat insulation cladding	: EPP

### Materials

Max. adm. operating temperature	: see Pressure/Temperature Diagram
Min. adm. operating temperature	: 20°C
Max. adm. operating pressure	: see Pressure/Temperature Diagram
Indicating accuracy - <b>FlowGuard</b>	: $\pm 10\%$ of the meter reading

