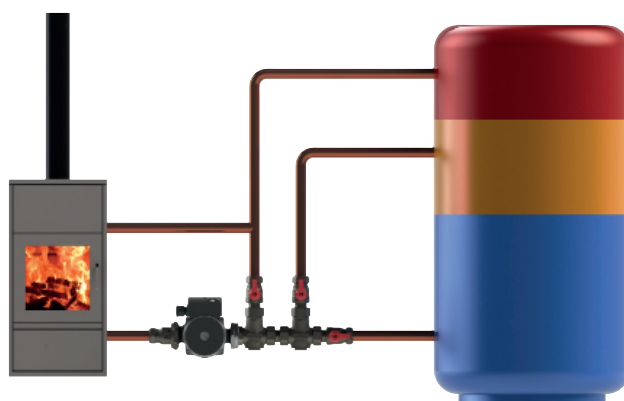


# LADDOMAT® 11-30 "Duo"

User and installation instructions



## Termoventiler

sustainable energy solutions

# LADDOMAT® 11-30 "Duo"

## User and installation instructions

### Function

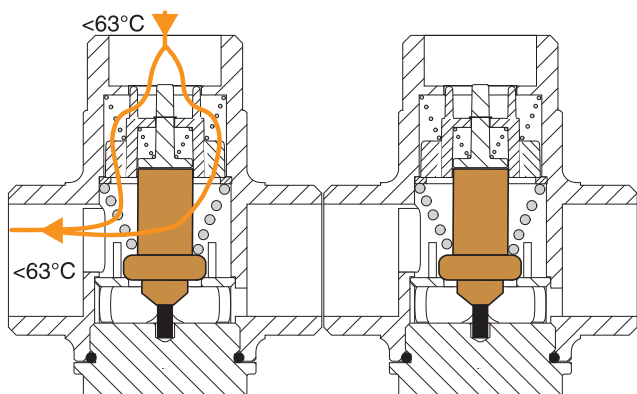
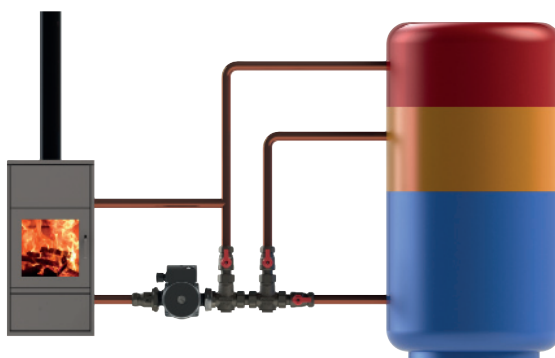
The purpose of Laddomat 11-30 "Duo" is to get hot water in the accumulator tank faster, especially if the boiler output is low.

Laddomat 11-30 "Duo" uses warmer water from the upper part of the tank to cool the boiler in the beginning. This creates a larger flow of hot water into the tank as more water is needed to cool the boiler when the temperature is higher.

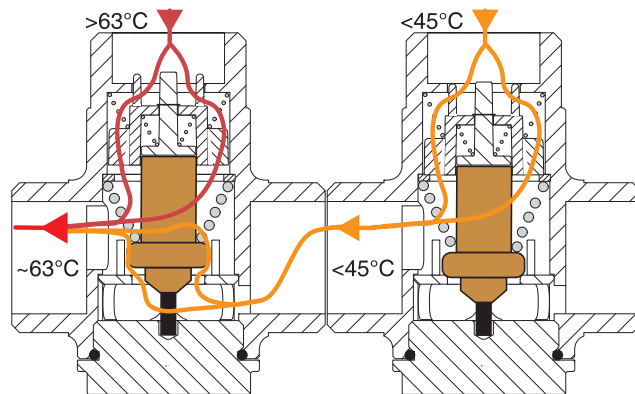
As soon as the top of the tank is hot, the second 11-30 valve opens and uses colder water from the bottom of the tank as usual.

### Thermal separation

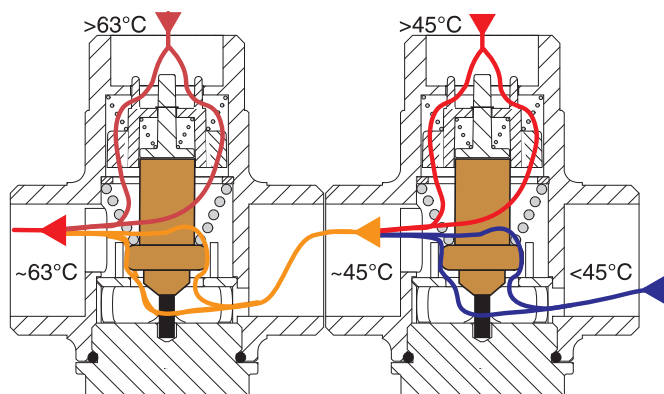
Thanks to its design and control features, the Laddomat means optimal thermal separation in the accumulator tank, with a low and even charging flow. This separation is beneficial as it increases storage capacity.



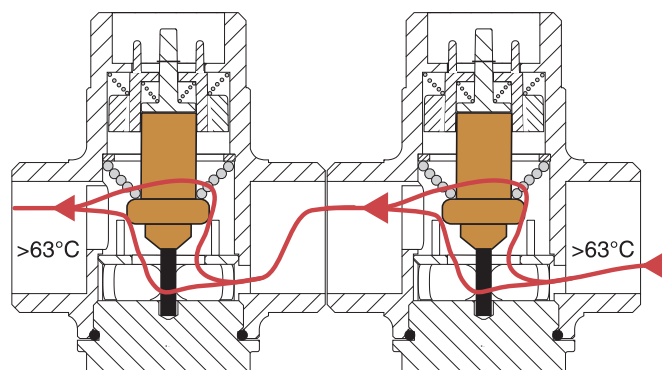
Start up phase



Operating phase 1



Operating phase 2



Final phase

## Technical data

Thermostat cartridge: 63° + 45°C

Pump: 6 m

Connection: Cu22  
R25

Max. boiler output: **40 kW**

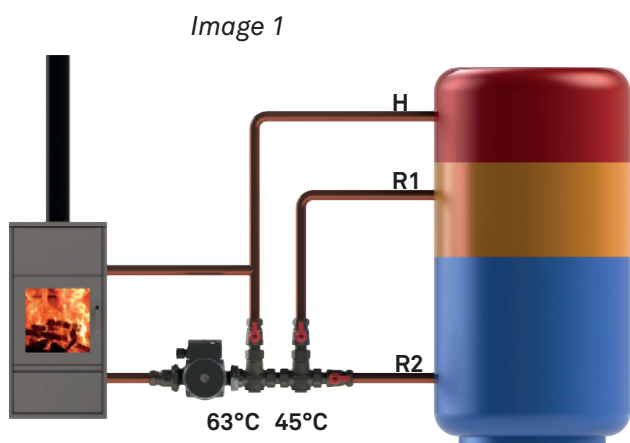
Pressure class: PN 6

Max. temp: Max +100°C  
Min +5°C

## Dimensioning

1. Highest suitable charge temp = (safety thermostat breaking temp - 5–10°C)
2. Minimum suitable inlet temp to boiler bottom (according to boiler manufacturer instructions)
3. Dt = Differential temperature between boiler inlet and outlet
4. Boiler output
5.  $\text{Boiler output} / \text{Dt} = \text{Flow} \rightarrow (P \text{ kW} \times 1000) / (\text{Dt} \times 1.16) = Q \text{ l/h}$   
Example:  $(30 \text{ kW} \times 1000) / (20^\circ\text{C} \times 1.16) = 1293 \text{ l/h}$
6. Valve pressure drop + pipe system pressure drop (at relevant flow)
7. Pump according to relevant manufacturer's pump curve

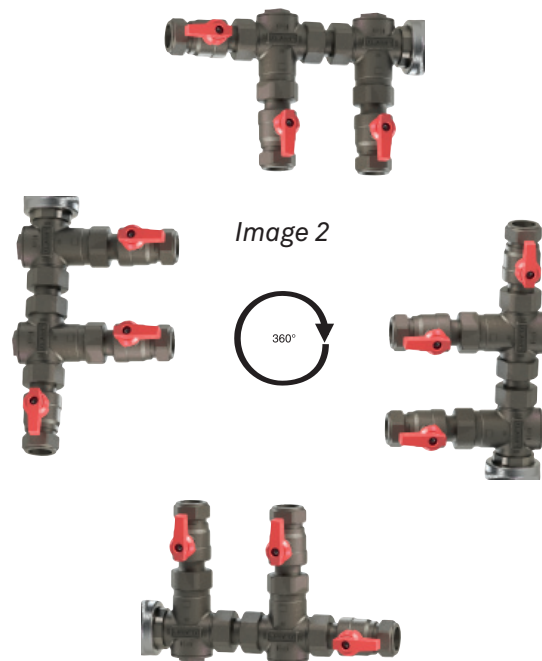
## Connection



Shut off valves are installed to facilitate servicing.  
Laddomat should be placed low to avoid keeping the valve hot.

The R1 connection must be made high on the tank.  
The water volume above R1 is used to cool the boiler during the first charging phase.

If the temperature at R1 = R2, then no quicker charging will be achieved.



The installation position does not affect the function of the valve.

The pipes must be connected to the correct port on the valve.

## Starting the pump

See image 3-6.

### Pump start alternative

On, for example, pellet burners the pump can be started and stopped at the same time as the burner.

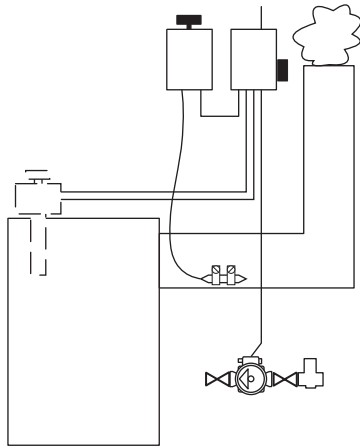


Image 3

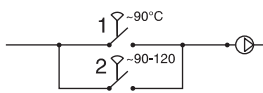


Image 4

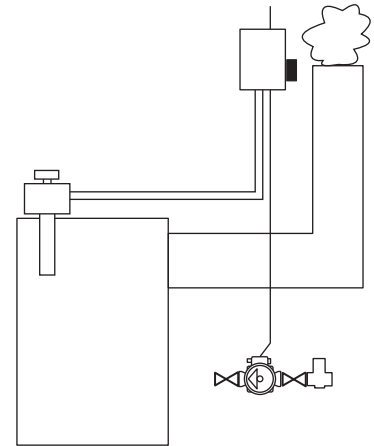


Image 5

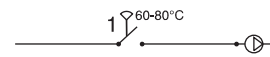
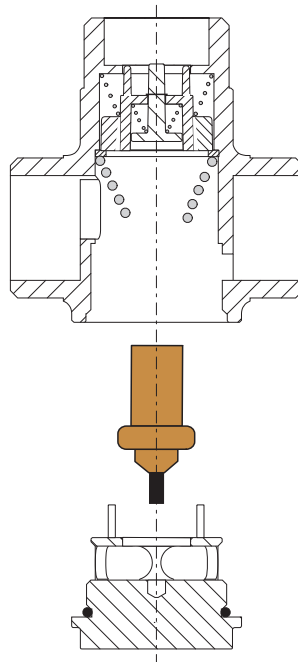


Image 6

## Service

To replace the cartridge, see image.

*The cartridge is easily replaced by unscrewing the cap. The cartridge is loose in the cap and comes out with it (when installing with cap down).*



## Thermostat cartridges are available as a replacement part:

Type	Opening temperature	Art. No.
9311	45°C	11 00 45
5840	53°C	11 00 53
8749	57°C	11 00 57
5839	63°C	11 00 63
1240	66°C	11 00 66
8719	72°C	11 00 72
1456	78°C	11 00 78
1467	83°C	11 00 83
8222	87°C	11 00 87