

# Pump group DN 25

# SA, SMTC, SMT

# red line



Mounting and operating instruction



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# Pump group DN 25

# Insulation pump group



The modern insulation fits the pump groups of **DN 25** and **DN 32**. With open space at the site of pumps installation, we can change the settings of electronic pumps, observe the state of its work and most importantly, protect the electronics of the pump from high temperature.

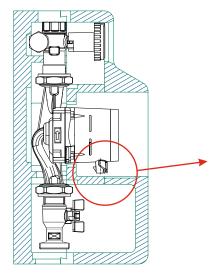








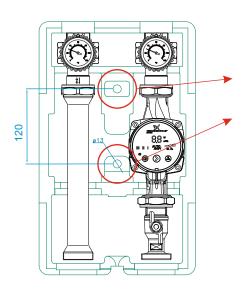
# **Cutting insulation - electric plug**



There are many different pump models on the market. There are made of different manufacturers and therefore insulation is sealed at the mounting location of power plug from the pump. Pumps are of different width as well as being various types of plug (straight, angled). Therefore, in the installation site plug, cut a hole in the insulation for example with knife.

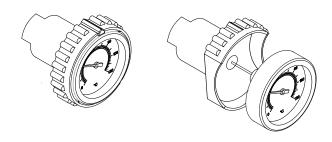
This concept gives us the versatility of insulation, so that we have the ability to cutouts the insulation only in the place where it is necessary.

### **Wall mounting**



If the pump group is mounted independently, without the zone manifold, we have the ability to mount it on the wall. In insulation at designated locations in the picture are depressions. To mount it on the wall, you deepen the holes in the insulation with bit fi 13 mm or less and using expansion plugs and insulation pads screwed to the wall.

# Replacement of the thermometer

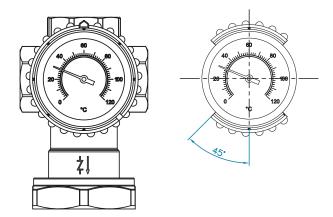


Ball valves mounted on flow and return of the pump group are equipped with thermometers. The thermometer can be changed according to the attached drawing.

In the plastic handle is incision to lever and pull out thermometer.

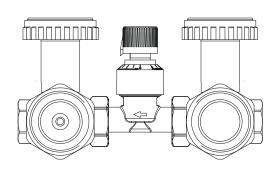


## Check valve

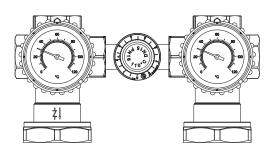


To disable the function, turn the handle 45 degrees according to the attached drawing. (only in units DN 25)

# Mounting balancing valve T25 - only for units DN 25

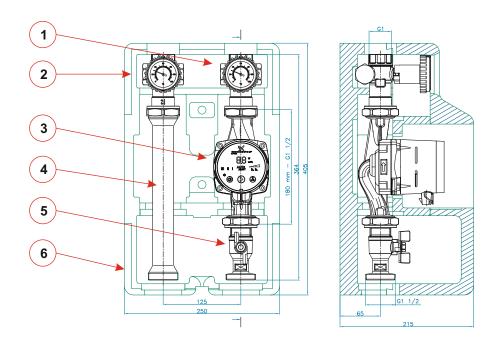


The balancing valve **T25**, assemble between ball valves with thermometers. To this end, we have to unscrew the caps in ball valves and in their place to mount the valve **T 25**. The valve is mounted on the flat seal.





# Pump group SA 125 - DN 25 without mixing valve/ Direct unit



- 1. Ball valve with thermometer 0-120°C supply side with the red handle.
- 2. Ball valve with thermometer 0-120°C, check valve return side with the blue handle.
- 3. The circulating pump (Optional) Grundfos or Wilo.
- 4. Connector steel (spacing 272mm).
- 5. Ball Valve with steel handle.
- 6. Insulation EPP.

Compact pump group SA 125 - DN 25 is equipped with three brass ball valves including two with thermometers on flow and return (with built-in check valve) steel connector and insulation. On request, the group can be equipped with a pump Grundfos or Wilo.

WARNING! Group comes from the supply side to the right. Sides can be switched.

Specyfications:

Max pressure: 8 bar Max temperature: 110 °C

Insulation material: EPP black 60g/l

Axle spacing: 125 mm

Gaskets material: VITON/EPDM

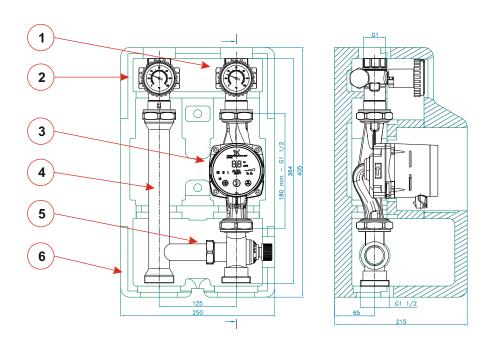
Connections:

Installation side: 1"
Boiler side: 1 1/2"

Installation length of pump: 180 mm Connection of the pump: 1 1/2"



# Pump group SMTC 125 -DN 25 with thermostatic mixing valve/Thermostatic Unit



- 1. Ball valve with thermometer 0-120°C supply side with the red handle.
- 2. Ball valve with thermometer 0-120°C, check valve return side with the blue handle.
- 3. The circulating pump (Optional) Grundfos or Wilo.
- 4. Connector steel (spacing 272mm).
- 5. Mixing valve 3-way thermostatic THERMO.
- 6. Insulation EPP.

Compact thermostatic mixing group SMTC 125 - DN 25 is equipped with a thermostatic mixing valve brass three-way THERMO (kv 2.7) for regulating the temperature of 20 - 47 °C or 35-60°C (depending on the model of the group), two thermometers on flow and return (with built-in check valve) steel connector and insulation. On request, the group can be equipped with a pump Grundfos or Wilo.

WARNING! Group comes from the supply side to the right. Sides can be switched.

Specyfications:

Max pressure: 8 bar Max temperature: 110 °C

Insulation material: EPP black 60g/l

Axle spacing: 125 mm kv mixing valve: 2,7

Thermo valve adjustment 20-47°C for group SMTC1, or

35-60°C for group SMTC2

Gaskets material: VITON/EPDM Connections: 1 " F x 1½" M.

supply side: 1"

return side:  $1 \frac{1}{2}$  " Installation length of pump: 180 mm Connection of the pump:  $1 \frac{1}{2}$  "



## Thermostatic mixing valves THERMO



Thermostatic mixing valves THERMO series are designed to regulate the power factor of the installation of central heating radiators and floor.

Specyfications:

Max. temp. of hot water 85°C

Adjustable temperature  $30^{\circ}\text{C} - 65^{\circ}\text{C} \text{ (+/- }2^{\circ}\text{C)}$  or range:  $20^{\circ}\text{C} - 47^{\circ}\text{C} \text{ (+/- }2^{\circ}\text{C)}$ 

Max operating pressure: 10 bar

Min pressure:0,2 bar

Recommended operating pressure: 1 - 5 ba

Recommendation: for higher pressures it is recommended to mount the

pressure reducer

Temperature scale: 1 - 5 Setting tolerance: +/- 2°C

Body Brass CW617N Spring INOX AISI 302

Kv 2,7

Thermostatic mixing valves THERMO series must be installed by a qualified installer. The manufacturer is not responsible in cases where valves are used in the wrong way. If the thermostatic mixing valve is not properly installed, it can be dangerous to you and may not work correctly. During installation, please pay special attention to correct hydraulic connection. Temperatures above 50°C can cause burns. During the installation, operation or replacement of the valve, please use all safety precautions when working with high temperature water from the heating circuit.

#### INSTALLATION.

Please keep the connection according to indicators on the body.

HOT (H) red dot - Hot water

COLD (C) blue dot - Cold water

MIX - Water mixed

#### **OPERATION OF VALVE**

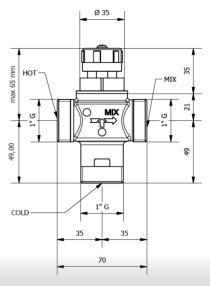
Factory calibrated valve temperature is 15°C cold water, hot water temperature 65°C for a pressure of 3 bar. To meet the abovementioned conditions markings on the handle corresponding to the mixed water temperature (see table).

Markings on the handle correspond to the appropriate temperature water mixed (see table).

#### THERMO 35-60 °C

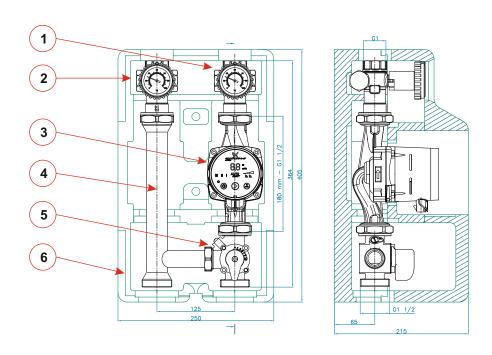
#### THERMO 20-47 °C

Position of the handle	MIN	1	2	3	4	5	MAX	Position of the handle MIN	1	2	3	4	5	MAX
Temperature	35	43	46	50	54	60	63	Temperature 20	23	27	33	40	48	52





# Pump group SMT 125 - DN 25 Mix with mixing valve MT 25/ Mixing Unit



- 1. Ball valve with thermometer 0-120°C supply side with the red handle.
- 2. Ball valve with thermometer 0-120°C, check valve return side with the blue handle.
- 3. The circulating pump (Optional) Grundfos or Wilo.
- 4. Connector steel (spacing 272mm).
- 5. Mixing valve 3-way MIX MT 25 with bypass.
- 6. Insulation EPP.

Compact mixing group SMT 125 - DN 25 is equipped with a brass three-way mixing valve T type, two brass ball valves with thermometers flow and return (with built-in check valve) connector steel and insulation. MIX MT mixing valve is equipped with a bypass. On Requests group can be equipped with a pump Grundfos or Wilo. Additionally to ensure automatic operation of the mixing valve must be equipped with an actuator MP 06 - 6Nm.

**WARNING!** Group comes from the supply side to the right. Sides can be switched.

#### Specyfications:

Max pressure: 8 bar Max temperature: 110 °C

Insulation material: EPP black 60g/l

Axle spacing: 125 mm

Gaskets material: VITON/EPDM

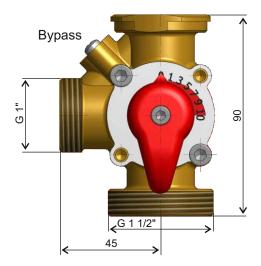
Connections:

supply side: 1"
return side:  $1 \frac{1}{2}$ "
Installation length of pump: 180 mmConnection of the pump:  $1 \frac{1}{2}$ "



# Mixing valve MIX MT 25

Flat flange for a nut 1 1/2 "



3-way Mixing valve MIX MT 25 for straight-through flow, applies to small and medium-sized central heating system. It can be adjusted manually or automatically by the MP actuator 06. The body and valve plug covers are made from forged brass CW 617N.

## Possible way of work of mixing Valle

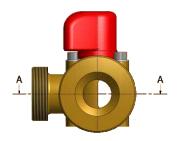
mixing valve closed

**A** 





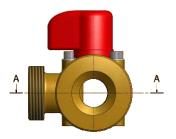
mixing valve partially open, mixing proportional







mixing valve open







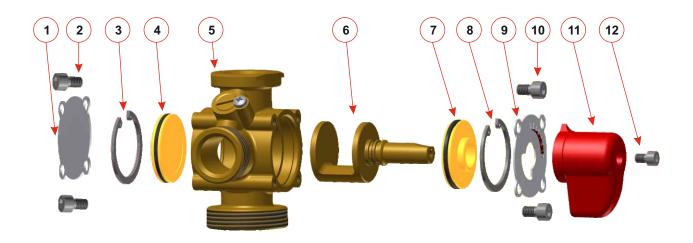


## **Setting bypass**

Bypass in mixing valve MIX MT makes special flow between supply and return irrespective of work of valve heart.



The construction of mixing valve MIX MT - change the supply side from right to left.



To change sides supply from right to left in the mixing valve we need:

- 1. Unscrew the screw M5 (12) handle (11), unscrew the screws M6 (10) scale (9), unscrew the screws M6 (2) plate (1).

- 2. Use pliers to remove the ring Seger (3), push the plug valve (4).

  3. Use pliers to remove the ring Seger (8), push the lid sealing valve (7).

  4. Remove the plug (6) and insert it into the body vice versa mixer (5).

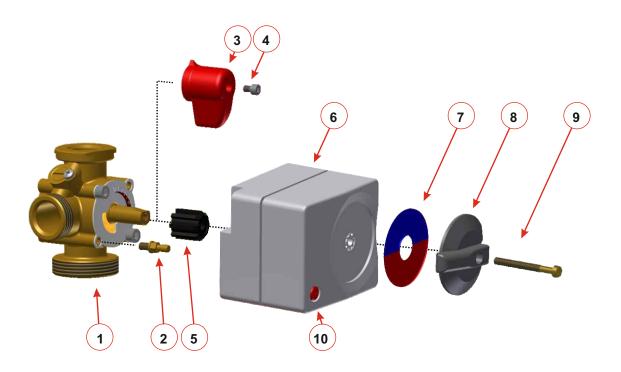
  5. Piece together the opposite valve covers (4 and 7) and lock rings Seger.
- 6. Tighten the scale (9) and plate (1), tighten the handle.

#### **WARNING!**

These activities should be carried out carefully to avoid damaging the seals of mixing valve.



## Instruction of mounting the actuator MP on the mixing valve MIX MT



- 1. Set the mixing valve in the closed position (0 on the scale) or open (10 on the scale).
- Remove the handle [3] of mixing valve [1] by removing the screw [4].
   Screw the body of the mixing valve [1] a bolt [2] prevents rotation of the actuator around its axis.
- 4. Apply the valve plug adapter [5].
- 5. Place the actuator [6] on the adapter [5], so that the screw [2] hit the cut-out at the bottom of the actuator.
- 6. Apply scale [7] on actuator [6]. The scale determines the correct position way mounting the valve in the system. When movement to the right closes the plug scale valve should be turned 180 degrees so that the blue part was on the right side
- 7. Put the handle [8].
- 8. Tighten the screw [9].

The switch manual / automatic [10] enables us to validate the installation of the actuator.

# Examples of assembling a group with mixing valve MIX MT Installation diagrams and scale settings

#### The factory setting

