# **Mixing Systems**

# KA 1191





## Function

When combined with pump group GP 1190, the kit for high temperature KA 1191 allows to install a hot water distribution for traditional radiator systems and a water distribution system for radiant panels in one single cabinet. The KA 1191 system keeps the water in the radiant panels at a constant pre-set temperature by mixing hot water coming from the boiler with the one circulating in the panels. A thermostatic valve with remote sensor measures the temperature and adds water to the circuit accordingly, so as to compensate the heat output of the radiant panels.

It is advisable to install a security thermostat on the pump inlet valve in order to avoid damages caused by a sudden temperature rise. The intervention of the thermostat must block the functioning of the pump.

This type of system can supply a max thermal power of 14 kW with a  $\Delta t$  of 10 °C and a temperature of  $\geq$  70°C on the primary circuit.

**Technical data** 

Max. working pressure:	10 bar
Max. working temperature:	80 °C
Max. differential pressure:	1 bar
Temperature range of adjustment:	20 ÷ 60 °C
Working fluids:	water in compliance with UNI 8065:2019

## Materials

Valve body:

Obturator:

Gaskets:

Plug:

inatorialo	
Thermostatic valve	
Valve body:	CW 617 N – DW UNI-EN 12165:2016
Obturator:	CW 614 N – DW UNI-EN 12164:2016
Gaskets:	Peroxide cured EPDM
Steel parts:	Stainless steel
Сар:	RAL9016 white ABS
Regulating lockshield valve	

CW 617 N – DW UNI-EN 12165:2016 CW 614 N – UNI-EN 12164:2016 Peroxide cured EPDM RAL9016 white ABS

## Accessories

Brass parts:	CW 617 N – DW UNI-EN 12165:2016; CW 614 N – UNI-EN 12164:2016
Steel parts:	Stainless steel
Copper parts:	Chrome-plated annealed copper
Gaskets:	Peroxide cured EPDM
Check valve:	Acetal
Thermostatic head	
Head:	RAL9016 white ABS
Sensor:	Liquid
Range of adjustment:	20 ÷ 65 °C
Length of capillary:	2 m

## Surface treatment

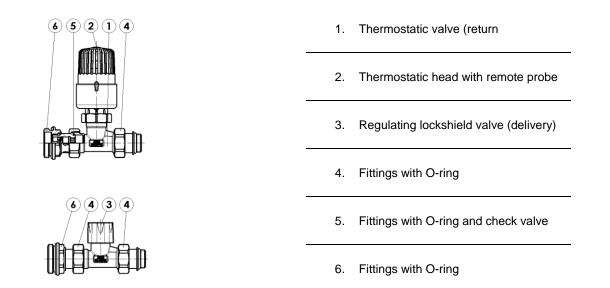
Nickel-plating

## **Dimensional Drawings**

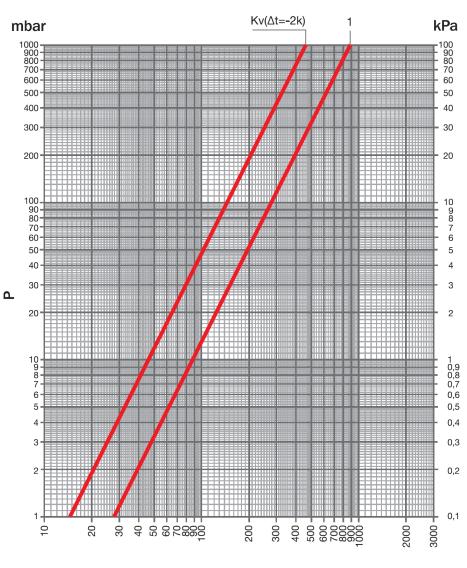
# KA 1191

Kit for high temperature heating system. To combine with pump set GP 1190. -Code В С D Е Size А 72000040 G 1" 110 60 102 111 G3/4 F G Code Size Н L Μ 72000040 G 1" G1/2 41 ---

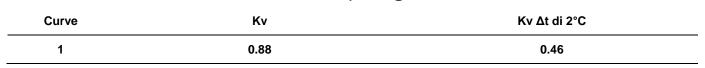
## Construction



### Flow Rate Diagram



qm = kg/h



#### Working Instructions



The version with KA1191 allows for control and balancing of the incoming water, but not using a way of the manifold. Moreover, by connecting another manifold to the KA1191 it is possible to control the distribution both for the high temperature and the radiant panels circuit with a single system. This type of system can supply a max thermal power of 14 kW with a  $\Delta t$  of 10 °C and a temperature of  $\geq$  70°C on the primary circuit.

The hot water coming from the boiler enters the GP 1190 pump group through the lockshield valve of the KA 1191 kit, while the corresponding water outflow is controlled by the thermostatic head mounted on the thermostatic valve. The lockshield valve controls the maximum quantity of hot water entering the floor system, thus balancing the primary circuit. The thermostatic head keeps the water of the secondary circuit at a set temperature. When the probe detects a temperature variation in the secondary circuit, the thermostatic head mounted on the valve adjusts the quantity of hot water which has to be mixed in order to reach the set temperature.

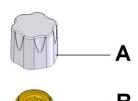


How to install the fixed point thermostatic head:

- Remove the protection cap from the thermostatic head.
- To ease the installation, set the thermostatic head to the maximum value and screw it onto the valve.



Place the bulb of the head into the fastening device.



- To adjust the flow rate:
  - Unscrew the ABS plug "A"; 0
  - Without forcing, close the obturator "B" by means of a 10 mm Allen 0 key:
  - Open the obturator for a number of turns as indicated on the flow 0 rate diagram:
  - Screw the ABS plug "A" back.
- WARNING: Once the system has been leak tested, please relieve the pressure. A differential pressure over 1 bar between the inlet and the outlet of the valve may cause the sealing O-ring to be expelled.

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