

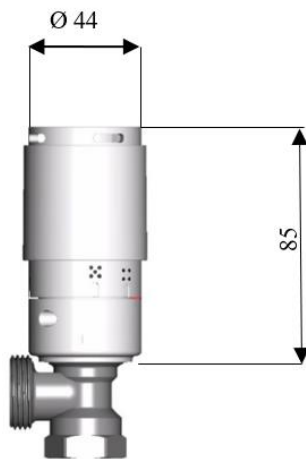


DESCRIPTION

109L

“Domignon” thermostatic head with liquid sensor incorporated with temperature locking device, for all Pettinaroli thermostatic valves (M28 x 1,5).

DIMENSIONS



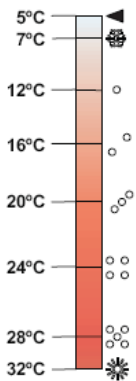
MATERIALS

House parts	ABS
Thermostatic sensor	Liquid
Spring	AISI 302
Ring nut	CW614N (DIN 50930 part.6) CuZn39Pb3
Internal components	POM thermoplastic
Inner locking ring	PP plastic

FULL RANGE

106CN	Wax sensor
107L	Liquid sensor
107LHN	Liquid sensor, for Heimeier connection
107LR	Liquid sensor with anti theft device
107LOD	Liquid sensor, for Danfoss connection or similar
107LD	Embedding remote liquid sensor, regulator incorporated
107LKIT	Embedding remote liquid sensor
108L	Liquid sensor - EN 215 n°49 certified
109L	Liquid sensor

TECHNICAL DATA



The following technical details refer to the actuator mounted on 760P (DN10, DN15) and 761P (DN10, DN15) valves.

Max. differential pressure	0.8 bar
Differential pressure influence (D)	0.25K
Liquid sensor hysteresis (C)	0.45K
Flow temperature influence (W)	0.80K
Response time (Z)	30 minutes
Nominal flow rate 760P (qmN)	155 Kg/h
Nominal flow rate 761P (qmN)	175 Kg/h
Max temperature	110°C
7°C min. setting of the temperature selector	

$$\Delta P = \left[\frac{Q}{Kv} \right]^2$$

$$Q = Kv * \sqrt{\Delta P}$$

Where

Q is the flow rate [m³/h]

Kv is the flow rate factor [m³/h]

ΔP is the pressure drop across the valve [bar]

Angle

$$q_{mNH} = 155 \text{ kg/h}$$

$$a = 0.92$$

ΔT [°C]	Kv	
	3/8"	1/2"
1K	0.28	0.28
2K	0.54	0.54
T.O.	1.60	1.70

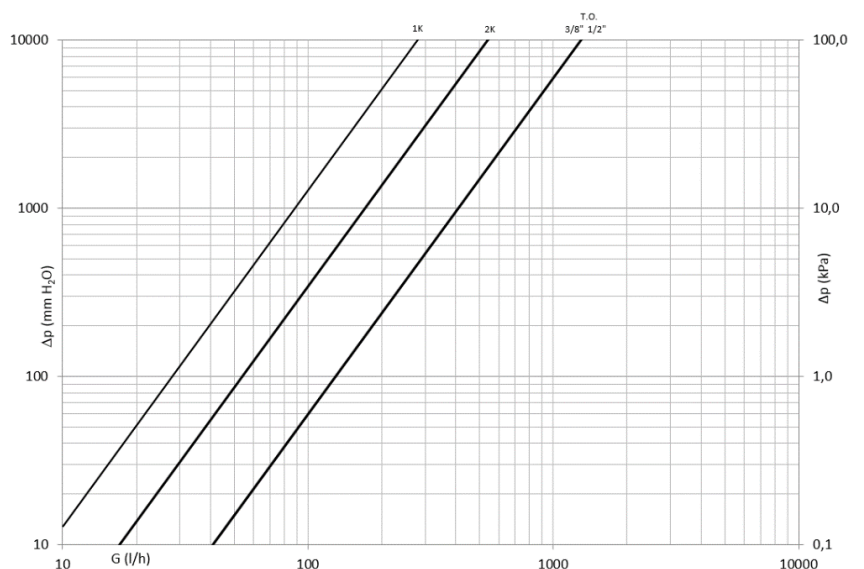
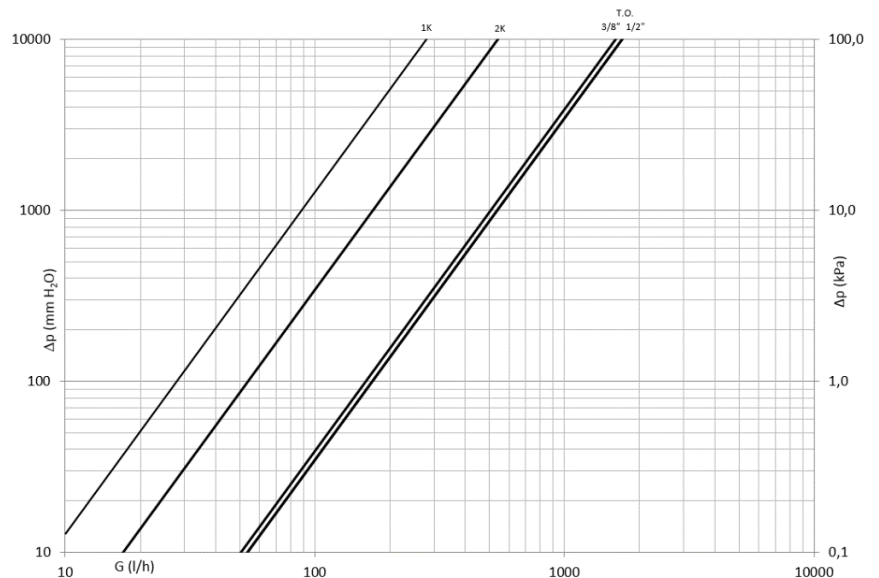
Straight

$$q_{mNH} = 175 \text{ kg/h}$$

$$a = 0.81$$

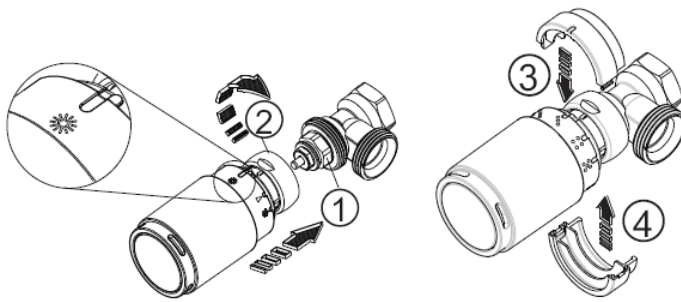
ΔT [°C]	Kv	
	3/8"	1/2"
1K	0.28	0.28
2K	0.54	0.54
T.O.	1.30	1.30

T.O.: Total Open



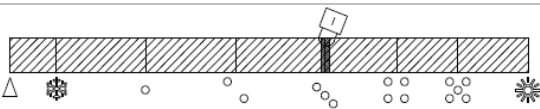
INSTALLATION INSTRUCTIONS

The flow direction has to be in accordance with the arrow on the valve body. The suggested thermostatic head installation is the horizontal position;



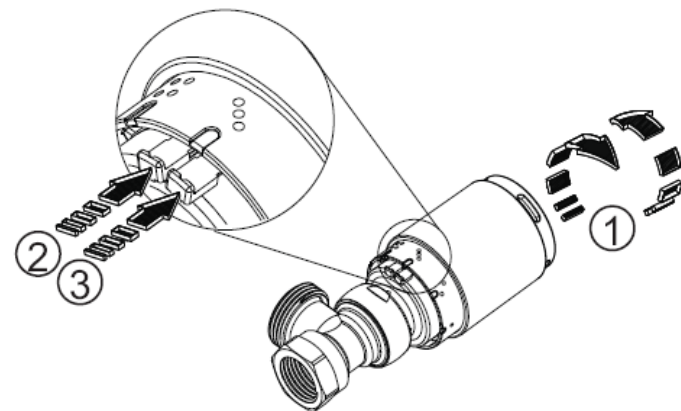
1. turn the head into position "open" ☼
2. insert the hexagon (1) of the headwork into the thermostatic head
3. screw the nut (2).
4. block the temperature, as described below
5. install the two half rings (3 e 4) for the temperature blockage

During summer time it is advisable to set the thermostatic head to completely open position.

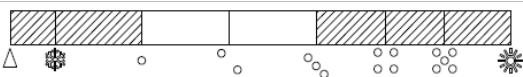


The head is provided with the locking stops in neutral position, to allow the free turn of the temperature handle.

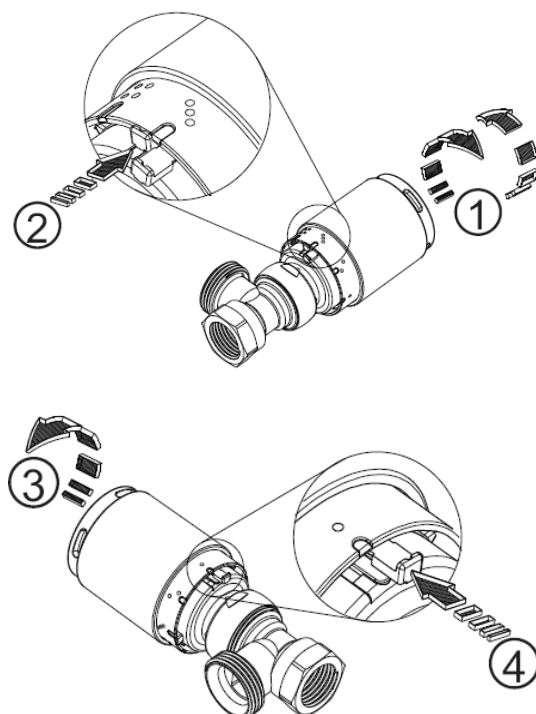
To block the temperature to a prefixed value, follow the steps as shown into the figure:



1. turn the head into close position and extract the first red stop (3)
2. turn the head into open position and extract the second red stop (2)
3. turn the head into the desired position (1)
4. push the temperature locking stops under the handle (2 and 3)



To block the temperature to a prefixed range, follow the steps as shown into the figure :



1. turn the head into close position and extract the first red stop
2. turn the head into open position and extract the second red stop
3. turn the head to the desired position for the maximum temperature (in figure the position with 3 points)
4. push the first temperature locking stop under the handle (2)
5. turn the head to the desired position for the minimum temperature (in figure the position with 1 point)
6. push the second temperature locking stop under the handle (4)