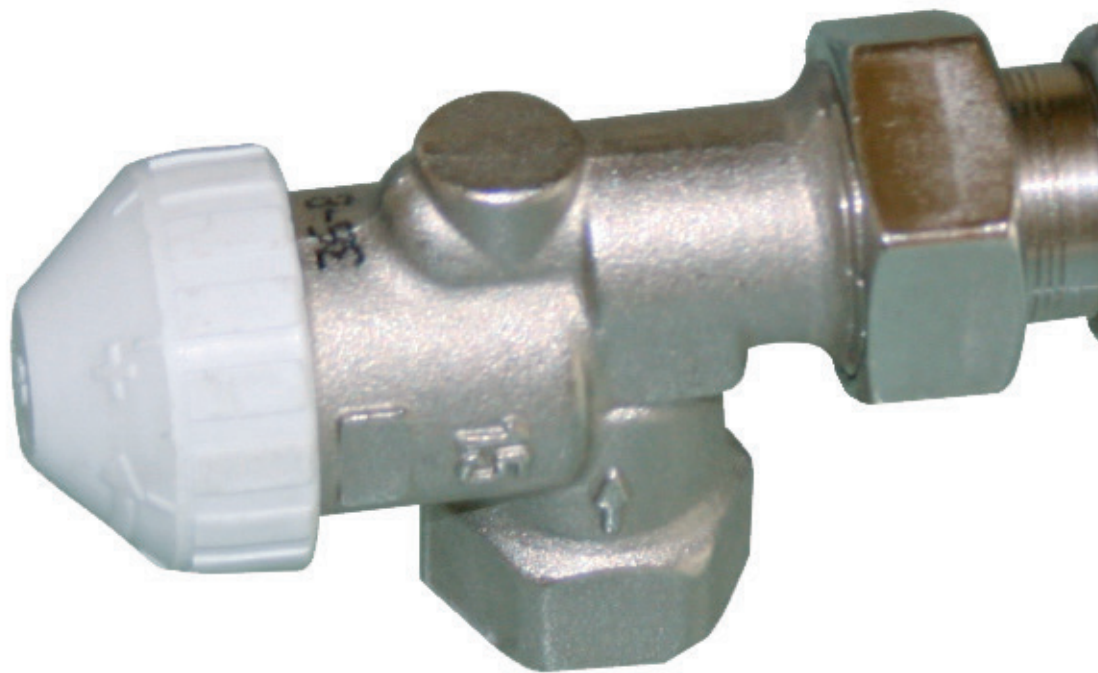


134M, 1134 Series

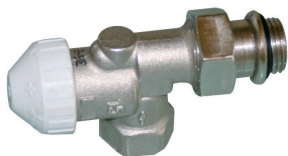
Reverse body thermostatic valves

Technical Data Sheet



Description

Reverse body thermostatic valves series 134M - 1134M are shut-of and setting devices of heat emitters (usually radiators) in heating system.



134M

Nickel-plated reverse angle body of thermostatic valve with removable protection cover for installation of thermostatic actuators series 148 and 148A or electrothermic actuators series 22C and 26LC.

Connection for iron pipe. Cylindrical tailpiece **with sealed O-Ring**. Pre-setting device with nine possible positions.

Type	Part number	DN Body	DN Pipe	Kvs	Weight (g)
134M	134M12	1/2"	1/2"	1,4	0,26



1134M

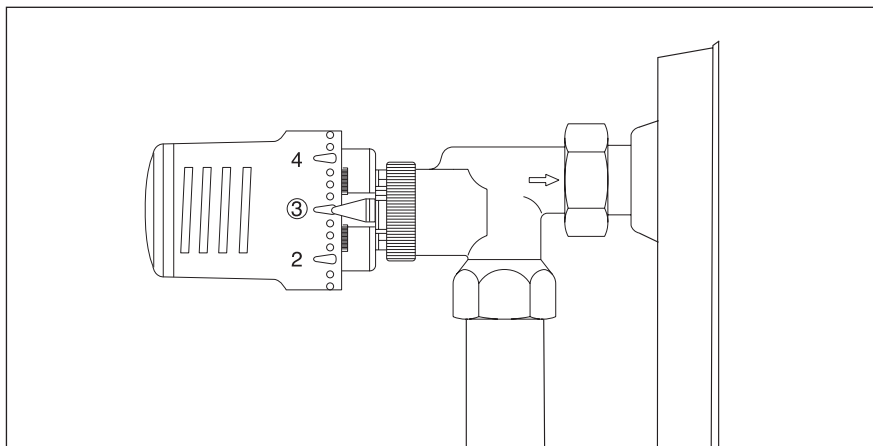
Nickel-plated reverse angle body of thermostatic valve with removable protection cover for installation of thermostatic actuators series 148 and 148A or electrothermic actuators series 22C and 26LC.

Connection for copper or plastic pipe size 1/2"M. Cylindrical tailpiece **with sealed O-ring**. Pre-setting device with nine possible positions.

Type	Part number	DN Body	DN Pipe	Kvs	Weight (g)
1134M	1134M12	1/2"	1/2"	1,4	0,24

Application

Reverse body thermostatic valves **134M, 1134M Series** are designed for automatic room temperature control when the space is limited: the particular valve body structure, with reverse inlet, allows the coupling with thermostatic and electrothermic actuators in line with the radiators. The thermostatic or electrothermic actuators coupling may also be carried out with the systems running.



Technical features

Nominal pressure	10 bar
Maximum differential pressure	1,5 bar
Maximum temperature	110°C
Usable liquids	Water also with glycol ≤ 50%

Design features

Valve body	CW617N
O-Ring	EPDM
Cap	Polypropylene

Operation

Reverse body thermostatic valves **134M, 1134M Series** are manually controlled through the turning of the protection cap or automatically through the coupling with thermostatic or electrothermic actuators.

The movement of the plug, that shut-of fluid, can be limited to obtain the necessary flow rate, moving the graduated ring nut under the cap: the pre-setting of valve introduces a calculated pressure drop that balances the hydraulic circuit.

The charts show the hydraulic flow rate and pressure drop characteristic for different pre-setting positions.

In the thermostatic function, it assumes the characteristic of such device: the valve inlet, usually assumed as nominal, is determinate with proportional band of 2K degrees.

The reliability of reverse body thermostatic valves **134M, 1134M Series** is guaranteed by the 100% testing of the production that checks for water tightness of the valve body and its components towards the outside and tight seal of the plug in its flow shut of function.

Kv valve values

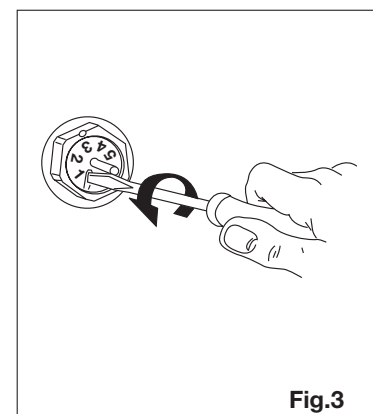
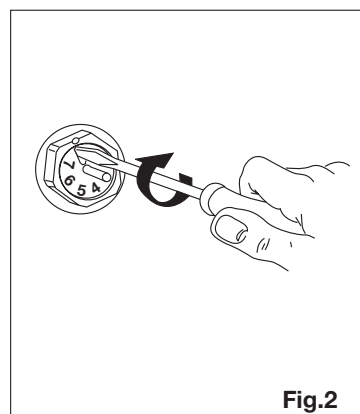
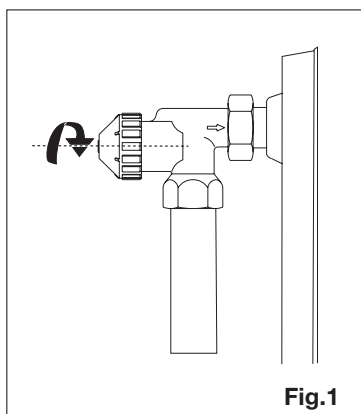
Setting position	1	2	3	4	5	6	7	A
DN 1/2"	0.18	0.38	0.56	0.76	0.88	1.00	1.10	1.40

Kv values with thermostatic actuator series 148 and 148A

Proportional band	1K	1,5K	2K	2,5K	3K
DN 1/2"	0.23	0.36	0.48	0.61	0.72

Presetting

- 1 - Remove the cap by turning it anti-clockwise (**Fig.1**).
- 2 - Fully close the pre-setting ring nut (**Fig.2**).
- 3 - Open the ring nut to required position by making the number to coincide with the reference notch (**Fig.3**).



Flow rate/Pressure drop

The charts show the hydraulic flow rate and pressure drop characteristics of reverse body thermostatic valves **134M, 1134M Series** size DN 12" and of the coupling with thermostatic actuators **148 and 148A Series**.

Presetting positions

Example.

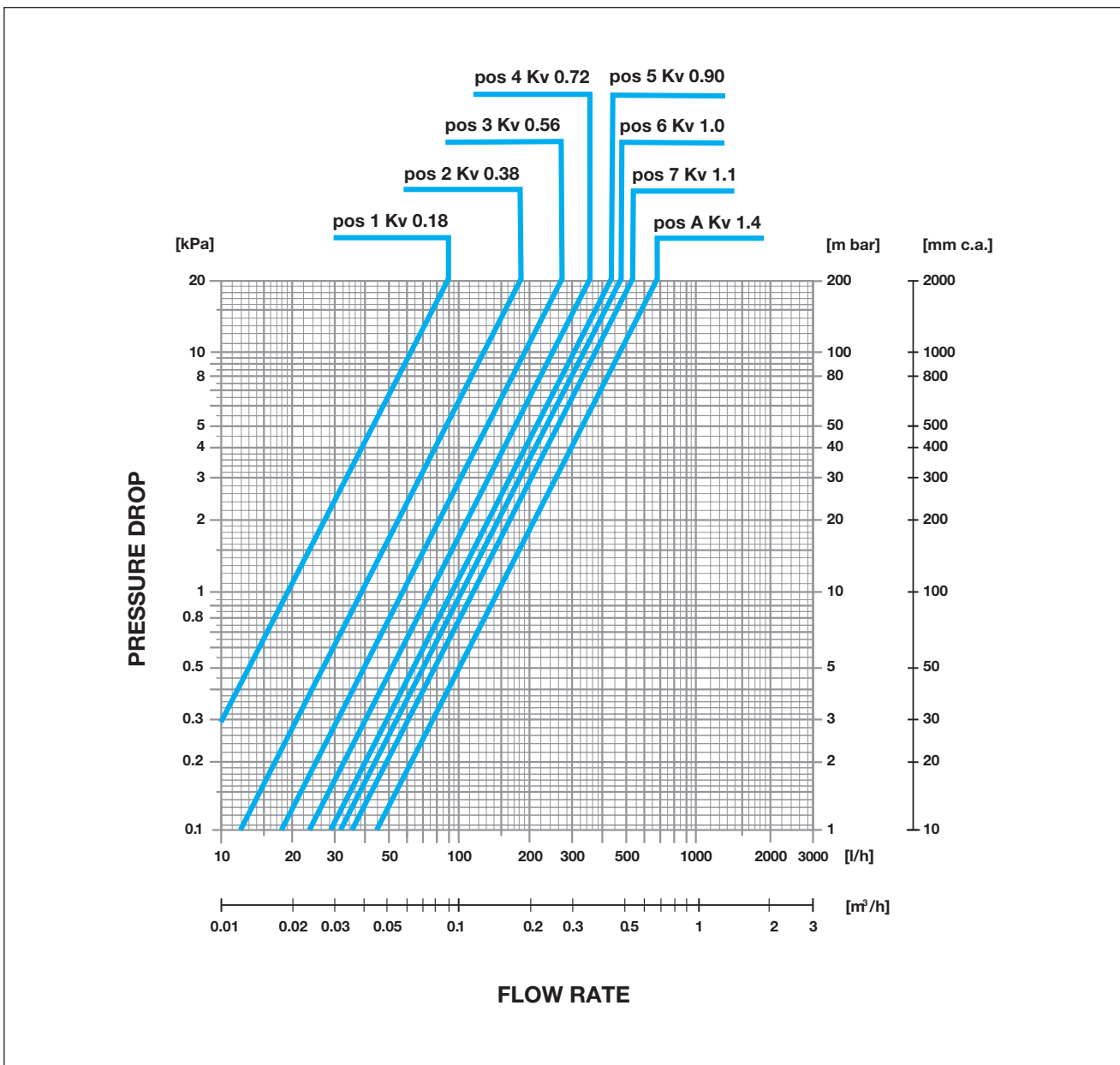
Evaluate the setting position for the radiator valve **1134M Series** size DN 12" with a flow rate of 80 l/h and a pressure drop of 500 mm water column.

Put the values on the chart: the pre-setting position corresponds at the straight line nearest at the found point (pos.2 Kv = 0.38).

The setting position can be evaluated also with an analytical method by applying:

$$Kv = \frac{q}{10 \times \sqrt{\Delta p}} = \frac{80}{10 \times \sqrt{500}} = 0.358$$

The nearest setting position is pos.2 Kv = 0.38.



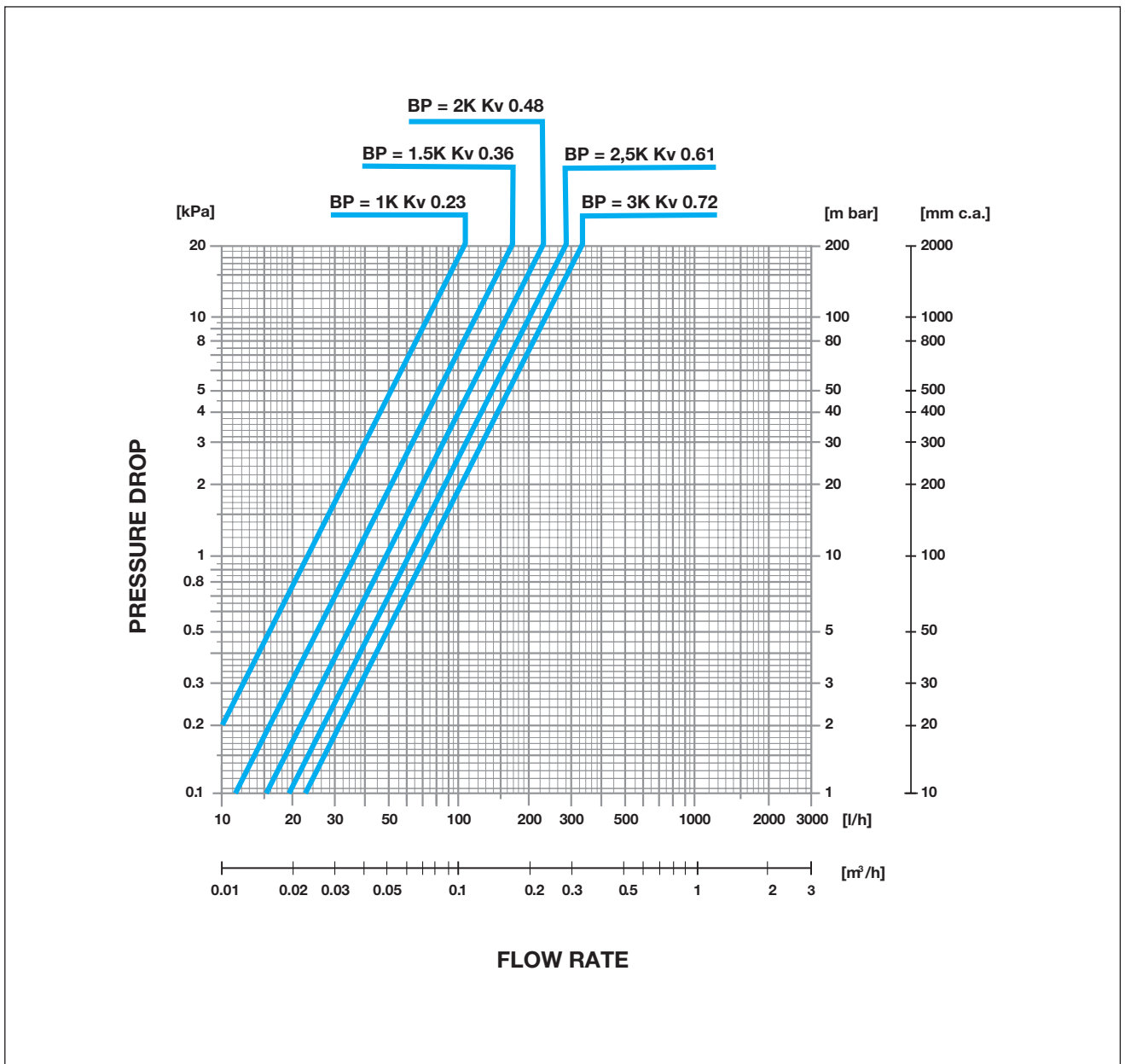
Reverse body valves 134M, 1134M Series coupled with thermostatic actuators series 148 and 148A.

The chart is valid when a presetting is not made on valve body. The inlet condition, usually assumed as nominal of project, corresponds to a proportional band of 2K, that is with an inlet of the valve (kv) in the position determinate from a room temperature lower of 2°C than prefixed temperature.

Example.

Evaluate the pressure drop of the thermostatic valve (1134UM + 148) with a flow rate of 100 l/h in nominal conditions (2K, Kv = 0.48).

$$\Delta p = \frac{q}{10 \times \sqrt{Kv}} = \left(\frac{100}{10 \times 0,48} \right) = 434 \text{ mm water columns}$$



Installation

Reverse body thermostatic valves can be installed onto radiator supplied by iron pipes (series 134M) and by copper and plastic pipe (**1134M Series**) in combination with lockshields 195UM, 196UM, 1195UM, 1196UM Series.

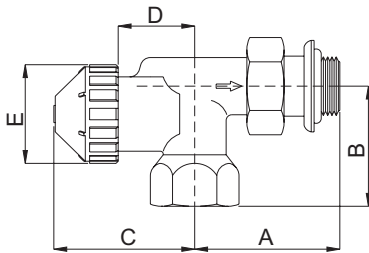
Valves are easily connectable onto radiators side through cylindrical threaded tailpiece with sealed O-ring and on pipe side through the wide range of fittings available (872M, 873M, 820R, 817M, 817MS Series).

The protection cap allows the shut-off and the manual opening/closing of the valve in tests with under pressure system and without actuators. In order to couple valves **134M, 1134M Series** with thermostatic or electrothermic actuators remove the protection cap and screw the actuator through the ring nut.

The coupling does not require any plumbing work and may also be carried out with the system running.

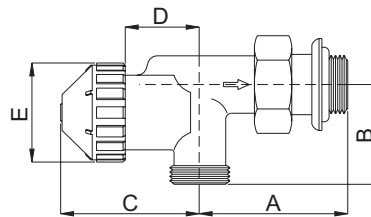
Overall dimensions (mm)

134M



DN	A	B	C	D	E
1/2"	53	37	50	31	35

1134M



DN	A	B	C	D	E
1/2"	53	34	50	31	35

The descriptions and photographs contained in this product specification sheet are supplied by way of information only and are not binding.

Watts Industries reserves the right to carry out any technical and design improvements to its products without prior notice. Warranty: All sales and contracts for sale are expressly conditioned on the buyer's assent to Watts terms and conditions found on its website at www.wattswater.eu. Watts hereby objects to any term, different from or additional to Watts terms, contained in any buyer communication in any form, unless agreed to in a writing signed by an officer of Watts.



Watts Industries Italia S.r.l.

Via Brenno, 21 • 20853 Biassono (MB) • Italy
Tel. +39 039 4986.1 • Fax +39 039 4986.222
infowattsitalia@wattswater.com • www.watts.com