

THERMOSTATIC REGULATION

THERMOSTATIC VALVES AND CONTROL HEADS & MANUAL VALVES



The cost of heating accounts for around 80% of residential energy consumption.

Today, installing thermostatic valves and heads enables you to considerably reduce these costs, with the additional benefit of achieving the thermal comfort you desire and custom solutions for wellbeing.



THERMOSTATIC VALVES & CONTROL HEADS

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MANUAL VALVES & LOCKSHIELDS

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THERMOSTATIC VALVES & CONTROL HEADS

Annual savings of up to 20%



THERMAL COMFORT *the dream becomes real*

Modern THERMOSTATIC REGULATION technology allows you to achieve thermal comfort in each room, while considerably reducing energy costs.

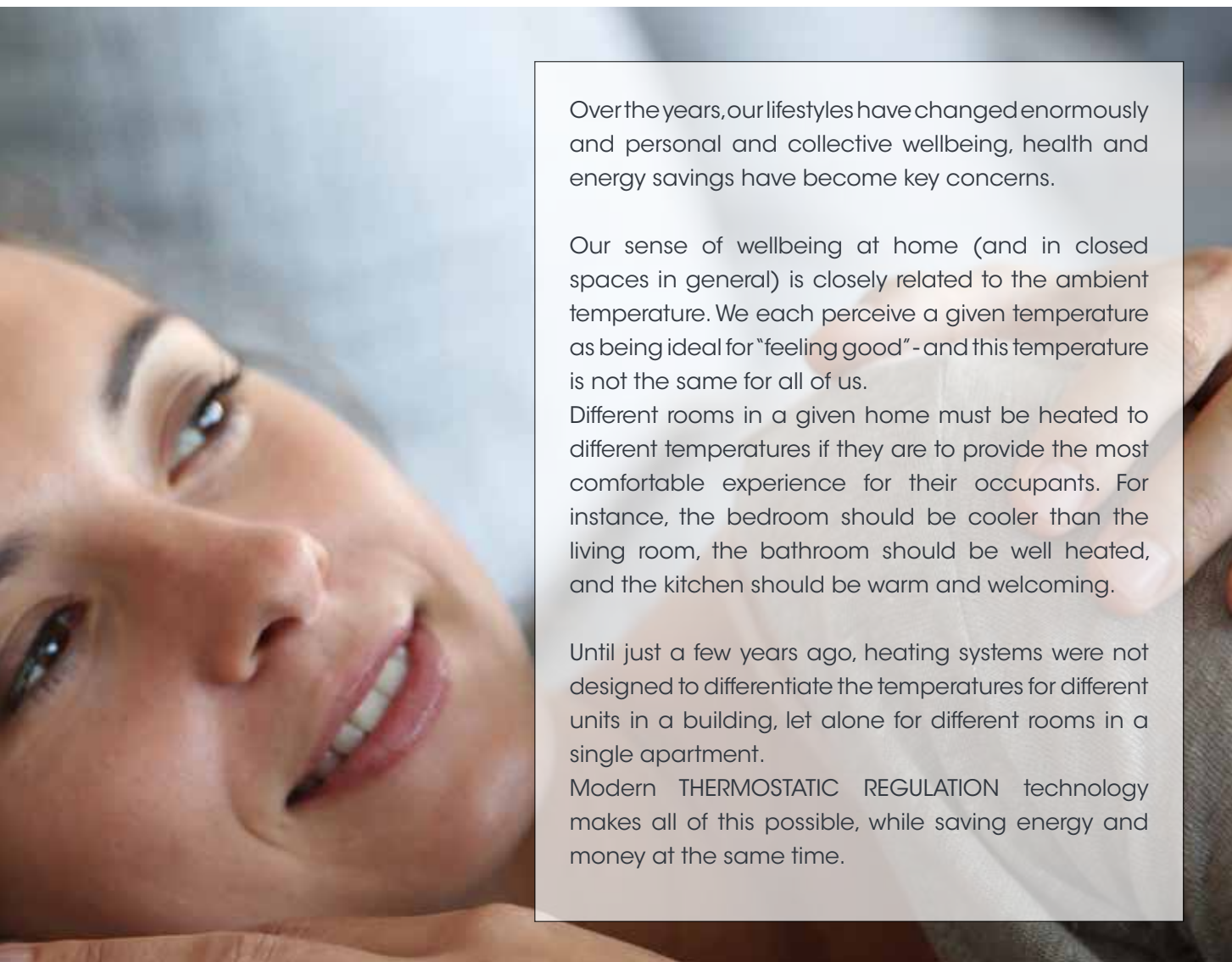
The cost of heating accounts for around **80% of residential energy consumption**. Installing thermostatic valves and heads makes it possible to save up to 20% of these costs.

Such systems can be installed both in existing and newly built buildings, so that their benefits are available to all.

CHOICE OF SYSTEMS AND ATTRACTIVE STYLING

Many valves are installed as manual units and remain so for a long time. This is why ITAP, in developing its project, has focussed on giving the handle of the valve attractive and refined styling, for situations in which a thermostatic head is not installed immediately, but the heating system is still intended to be adjustable.





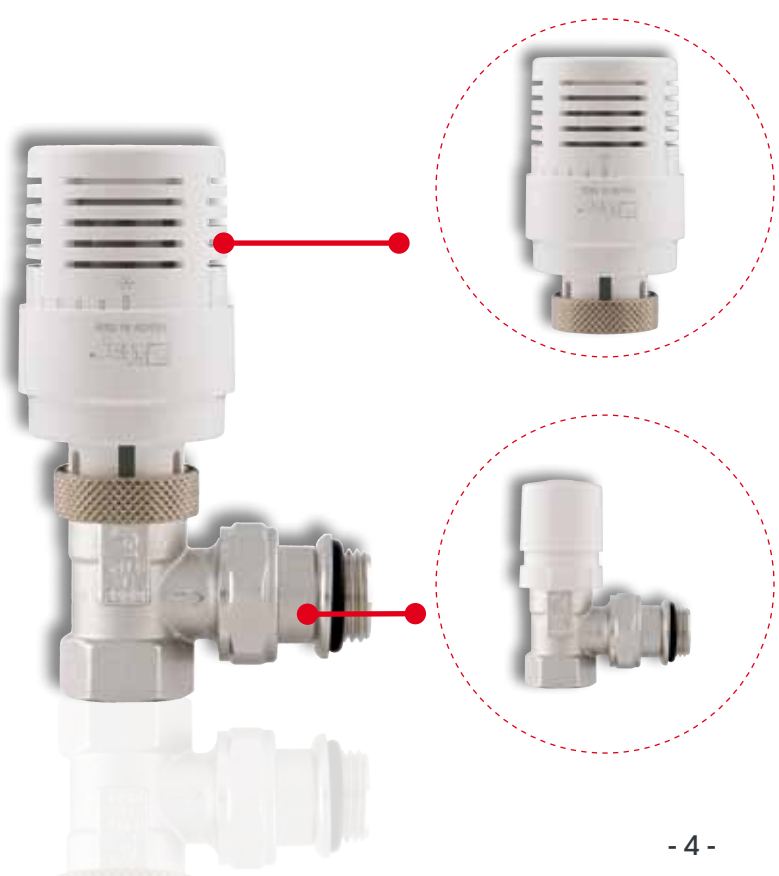
Over the years, our lifestyles have changed enormously and personal and collective wellbeing, health and energy savings have become key concerns.

Our sense of wellbeing at home (and in closed spaces in general) is closely related to the ambient temperature. We each perceive a given temperature as being ideal for "feeling good" - and this temperature is not the same for all of us.

Different rooms in a given home must be heated to different temperatures if they are to provide the most comfortable experience for their occupants. For instance, the bedroom should be cooler than the living room, the bathroom should be well heated, and the kitchen should be warm and welcoming.

Until just a few years ago, heating systems were not designed to differentiate the temperatures for different units in a building, let alone for different rooms in a single apartment.

Modern THERMOSTATIC REGULATION technology makes all of this possible, while saving energy and money at the same time.

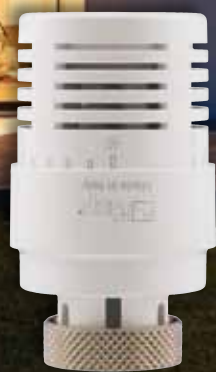


The thermostatic regulation unit has two components: the **THERMOSTATIC VALVE** and the **THERMOSTATIC HEAD**.

The **THERMOSTATIC VALVE**, very similar to conventional radiator valves, differs from the latter in the movement of the closing element itself, which is controlled automatically by a temperature sensitive head in response to the ambient temperature.

The **THERMOSTATIC HEAD** controls the closing element to maintain the set ambient temperature by regulating the flow of water to the radiators.

EACH ROOM HAS ITS IDEAL TEMPERATURE

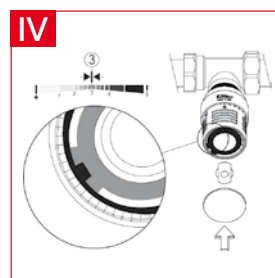
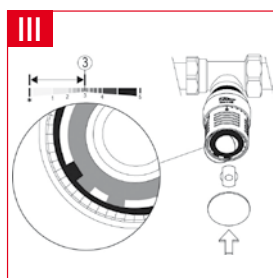
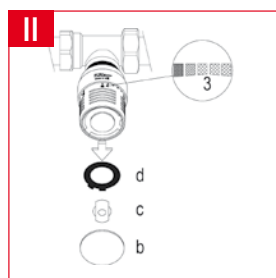
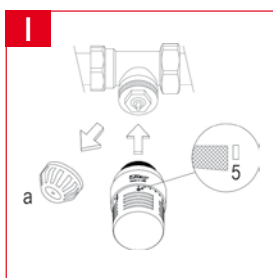


THE SIMPLEST DEVICE FOR AUTOMATICALLY CONTROLLING ROOM TEMPERATURE

The thermostatic head has 6 settings: from the anti-freeze setting (6.5°C) to totally open, at 28°C.

The **HEAD IS ADJUSTED** during installation in a few easy steps:

- Remove the valve's cap and fit the head set to the fully open position (5).
- Set the head to the desired setting, e.g. 3.
- use a screwdriver to remove the cover (b), retainer cap (c) and the first of the two locking washers (d) FIG. II.
- Restore the washer (d) as shown in FIG. III to limit regulation to the range of settings * to 3.
- Restore the washer (d) as shown in FIG IV to lock regulation to setting 3.
- Restore the cap (c) and cover (b).





	1	2	3	4	5
6,5 °C	12°C	16°C	20°C	24°C	28°C



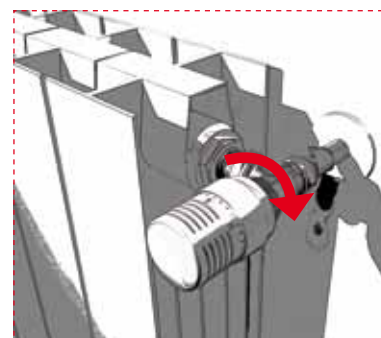
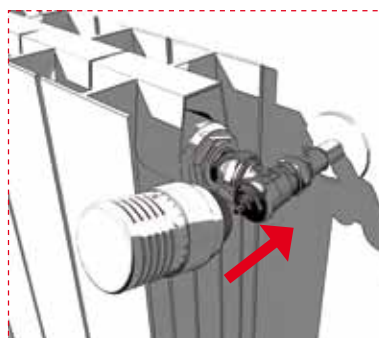
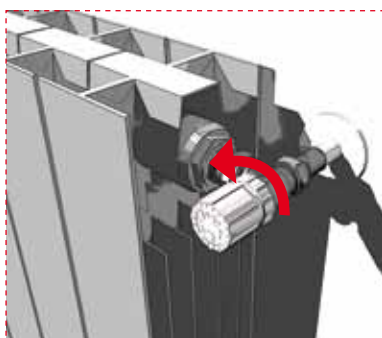
Thermostatic valves are also easy to fit with the thermostatic control: this can even be done with the heating system running.

1 Remove the manual control handle by rotating it counter-clockwise.

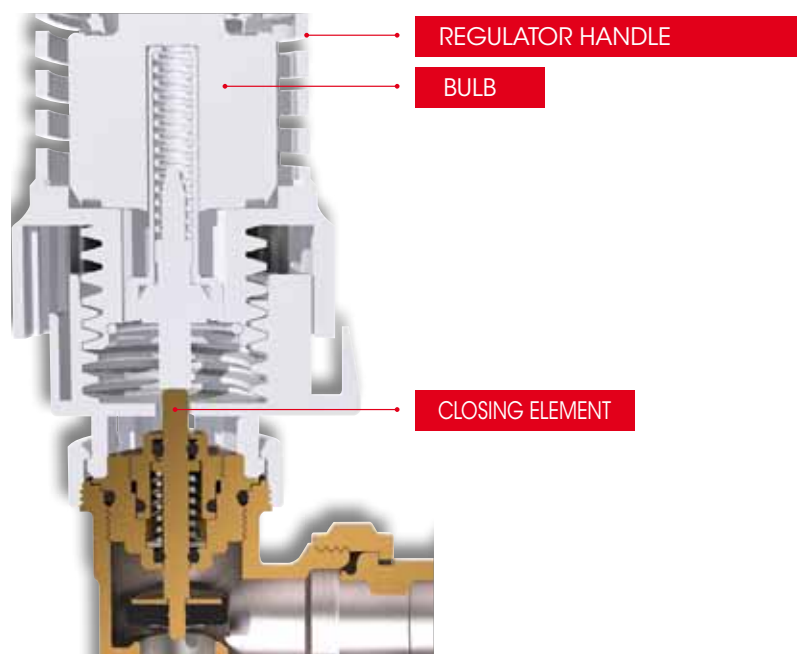
2 Set the thermostatic actuator to fully open (setting 5).

3 Fit the actuator to the valve body with the reference mark clearly visible and screw the nickel-coated collar down by hand until it is snug.

Do not fit the actuator vertically;



HOW IT WORKS



Thermostatic valves regulate the temperature as follows:

- when the air temperature is higher than the setpoint, the bulb dilates and closes the valve (partially or fully). This reduces the flow of hot water to the radiators, and hence the amount of heat delivered to the room;
- when the temperature falls below the setpoint, the bulb contracts and opens the valve. This increases the flow of hot water to the radiators, and hence the amount of heat delivered to the room;

CORRECT INSTALLATION

Installing the valve correctly is key to energy savings.

1°C CAN MAKE THE DIFFERENCE

1°C less in a room can reduce energy consumption by up to 6%. Keeping the temperature lower in just a few rooms, and even by just a few degrees, can result in enormous savings.

SAVE WHILE YOU'RE SLEEPING

Lowering the temperature even by one setting of the thermostatic head during the night can lower the temperature by 3-4°C

HEATING GOES ON VACATION

Set the valve to "❄" if you're going to be away for an extended period.

VENTILATION

Ventilate the rooms frequently to keep the air fresh, but only briefly and with the windows wide open. This allows fresh air to enter the room without lowering the temperature and wasting energy.

THE IDEAL TEMPERATURE IN EVERY ROOM, JUST A FEW STEPS AND ENERGY SAVINGS ARE GUARANTEED

The thermostatic head's sensor must not be fitted in a niche, behind curtains, or exposed to direct sunlight: such installations will cause false readings. If curtains or the above situations cannot be avoided, you must install the head with the remote control unit.



20°C



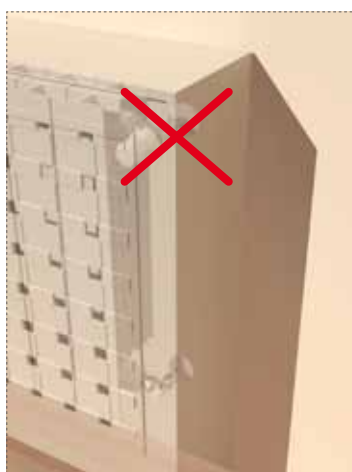
19°C



18°C



24°C



A REGULAR INSPECTION AND MAINTENANCE OF THE SYSTEM CONTRIBUTE TO THE PROPER FUNCTIONING OF THE SYSTEM AND TO THE CONSEQUENT MONEY SAVINGS

THE RANGE

VALVES & LOCKSHIELDS

Work fluid: water (maximum admissible percentage of glycol: 30%)

Body in nickel-plated brass.

Maximum working temperature: 110°C

Maximum working pressure: 10 bar

Maximum differential pressure: (with thermostatic control head installed): 1.5 bar

Threads ISO 228 (equivalent to DIN EN ISO 228 and BS EN ISO 228).

Male thread equipped with a conical seat and inner diameter mm.16.

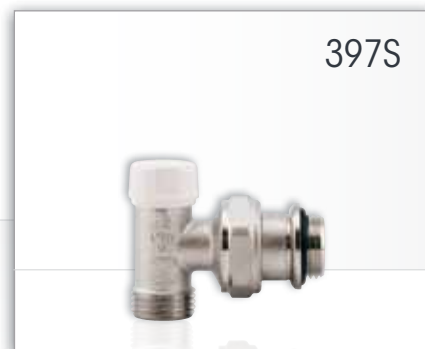
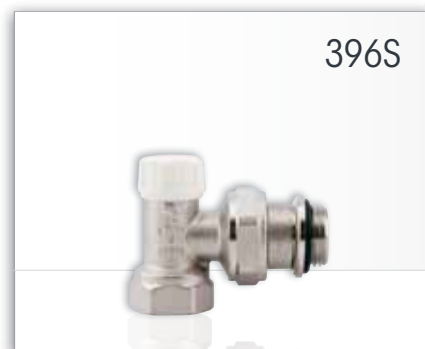
Suitable for thermostatic control heads art. 891 and art. 891SD and for electrothermal actuator art. 891M.

Art. 894V-894C-994V-994C

To be used with iron piping or, together with an Itap-Fit® connector (art. 618), with copper, crosslinked polyethylene (PEX) or polybutylene. In the case of use with PEX or polybutylene it is also requested the use of the liner (art. 655).

Art. 895V-895C-995V-995C

To be used with multilayer, PEX or polybutylene piping, together with a Multi-Fit® connector (art. 510). Suitable also for copper piping, together with a compression fitting (art. 595).



THE RANGE

CONTROL HEADS



Thermostatic control head with oil-filled element

Scale values: * to 5.
Adjustable temperature range: 6,5°C, 28°C.
Antifreeze position set: 6,5°C.
Device to restrict or lock temperature setting included.
Hysteresis: 0,5K.
Water temperature effect (W): 0,75K.
Response time: (Z): 30min.
Maximum differential pressure: 1,5bar.



Thermostatic control head with remote control

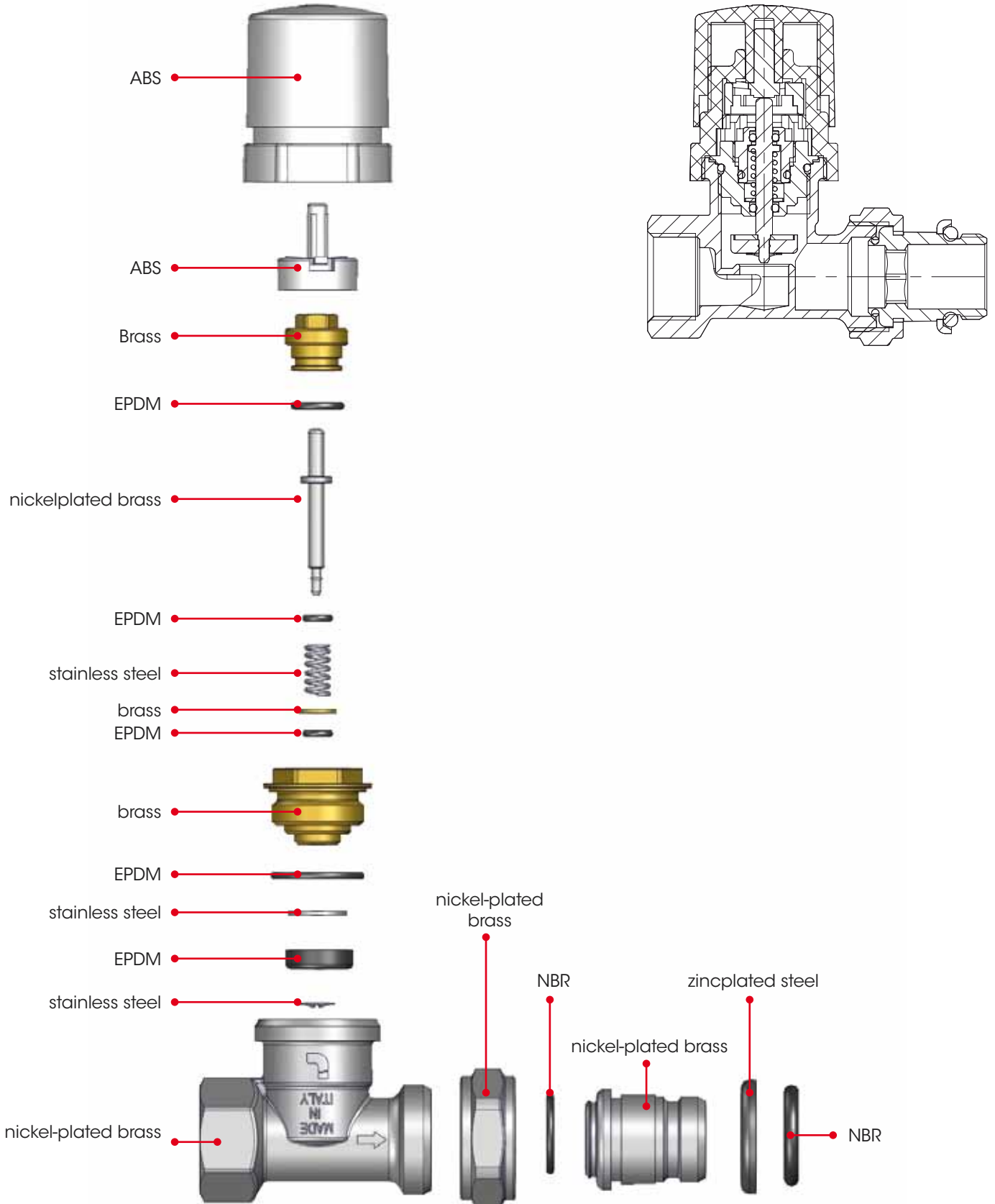
Scale values: * to 5.
Adjustable temperature range: 6,5°C, 28°C.
Antifreeze position set: 6,5°C.
Device to restrict or lock temperature setting included.
Hysteresis: 0,5K.
Response time: (Z): 30min.
Maximum differential pressure: 1,5bar.



Electrothermal actuator

Suitable for convertible valves and pre-assembled manifolds.
Normally closed, on-off operation.
Power supply voltage: 230V.
Power consumption: 2W.
Minimum and maximum working ambient temperatures: 0°C, 65°C.
Maximum differential pressure: 1,5bar.
Length of the power supply cable: m.1.
Class of protection IP54.
Available with 2 cables or 4 cables with an auxiliary microswitch.
Capacity of the auxiliary connection: 300mA.
CE marked.

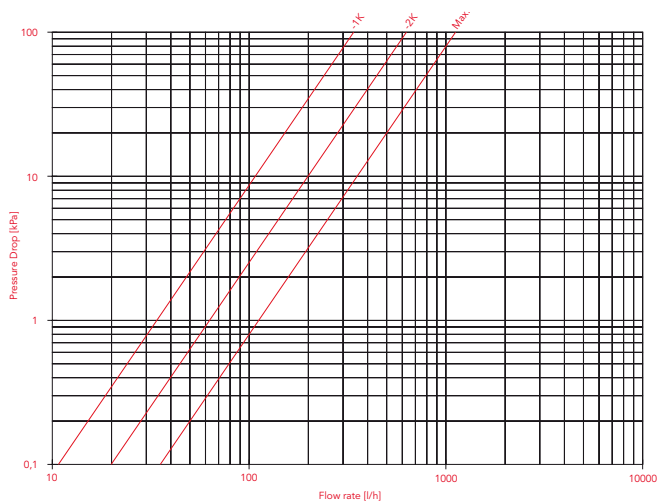
MATERIALS VALVES



LOSS OF PRESSURE VALVES

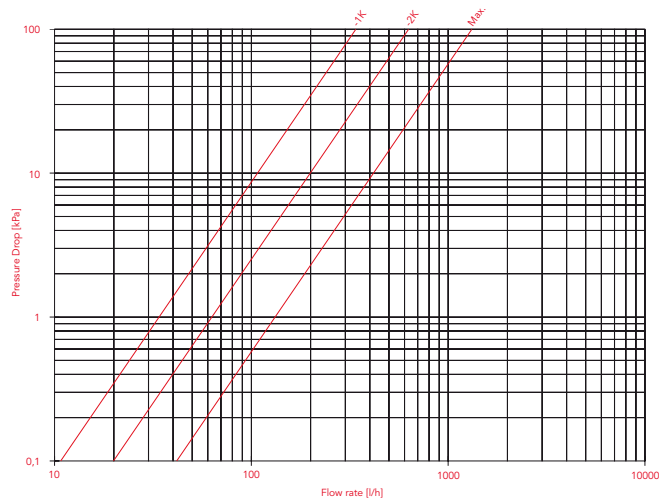
Art. 894C - 894V - 895C - 895V
Size: 3/8"

SIZE	3/8"		
-	-1K	-2K	Max
Kv	0,34	0,63	1,12



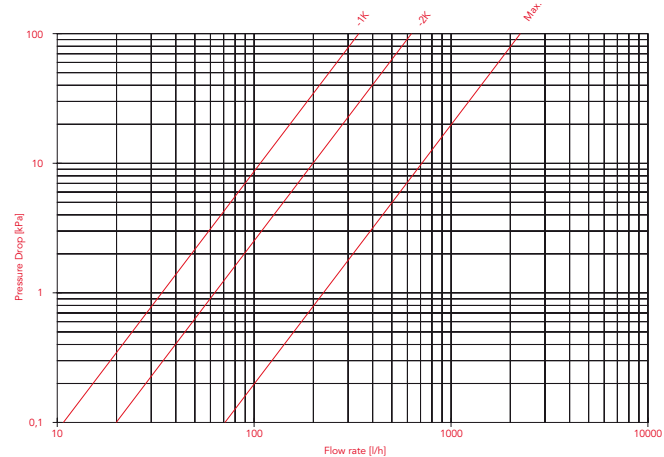
Art. 894C - 894V - 895C - 895V
Size: 1/2"

SIZE	1/2"		
-	-1K	-2K	Max
Kv	0,34	0,63	1,32



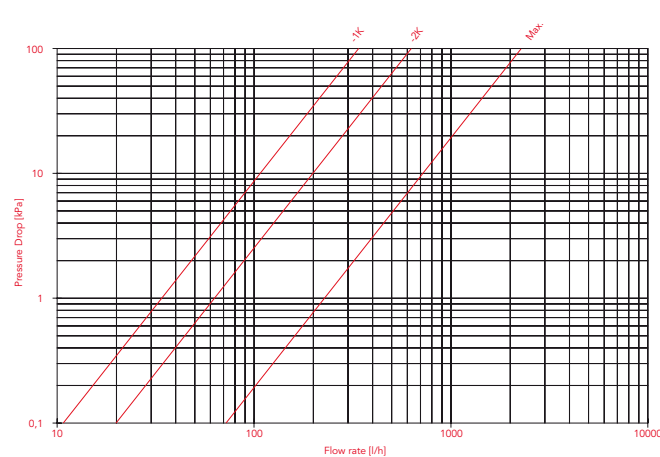
Art. 994C - 994V - 995C - 995V
Size: 3/8"

SIZE	3/8"		
-	-1K	-2K	Max
Kv	0,34	0,63	2,25



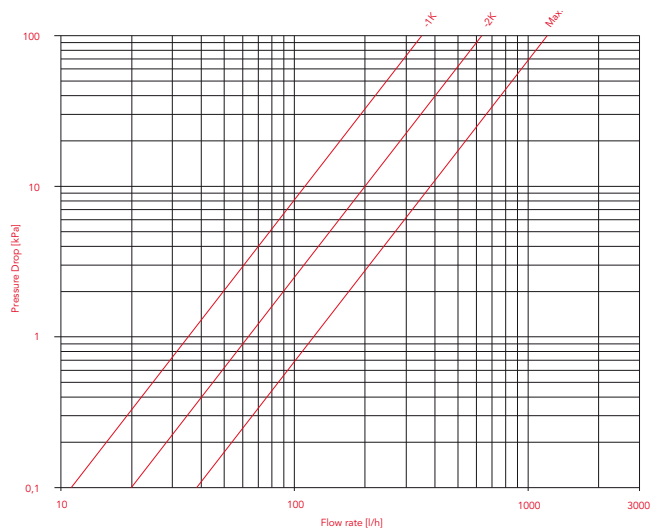
Art. 994C - 994V - 995C - 995V
Size: 1/2"

SIZE	1/2"		
-	-1K	-2K	Max
Kv	0,34	0,63	2,28

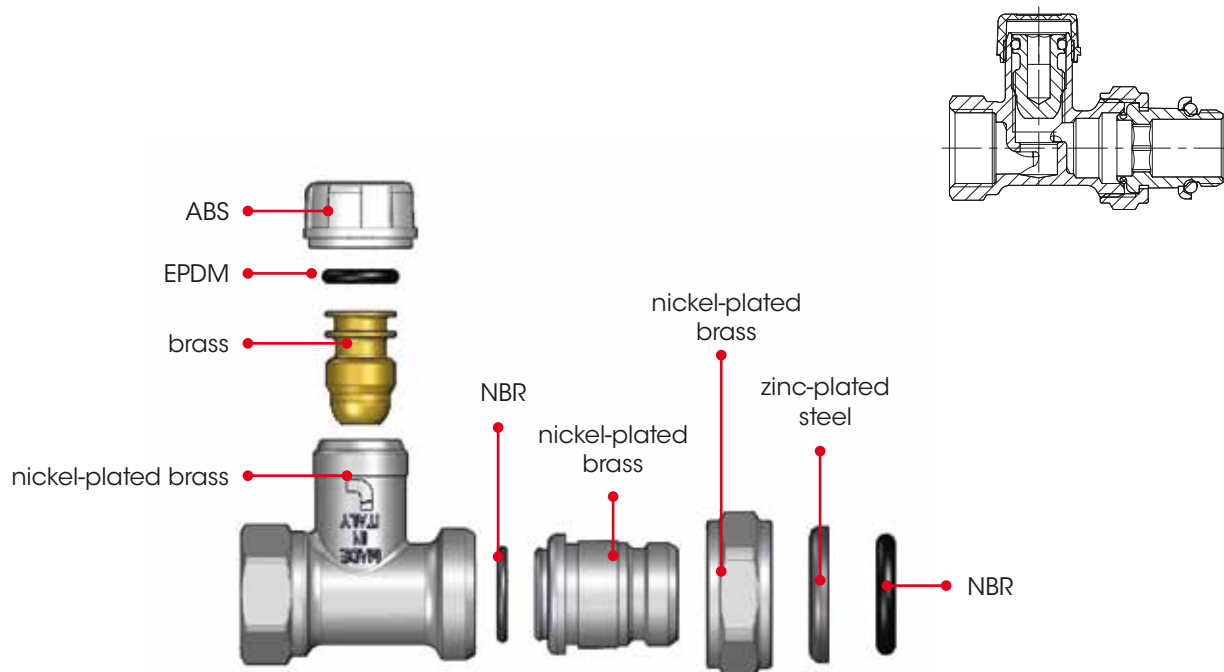


Art. 894C - 994C
Size: 3/4"

SIZE	3/4"		
-	-1K	-2K	Max
Kv	0,35	0,63	1,20



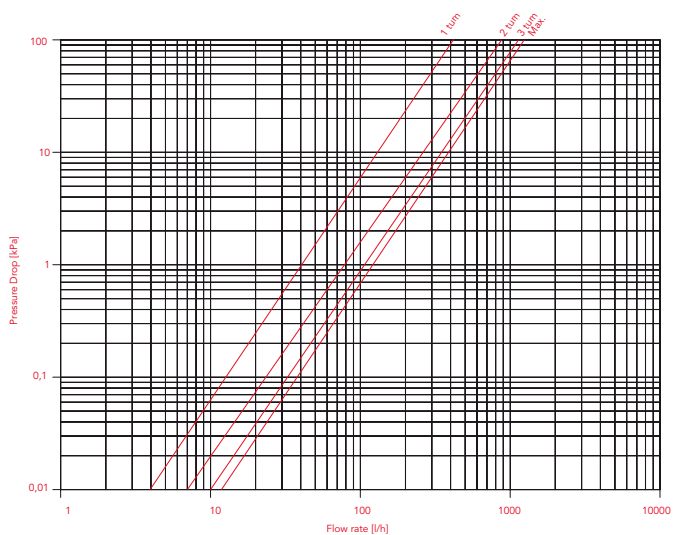
MATERIALS LOCKSHIELDS



LOSS OF PRESSURE LOCKSHIELDS

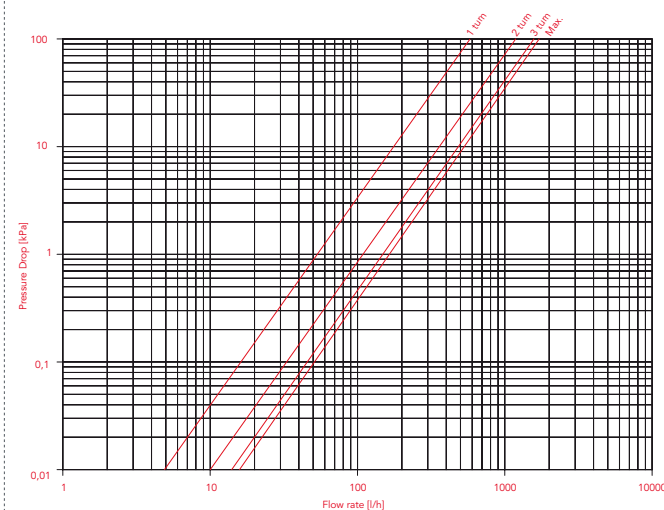
Art. 296S - 297S
Size: 3/8"

SIZE	3/8"			
Turn	1	2	3	Open
Kv	0.4	0.9	1.1	1.26



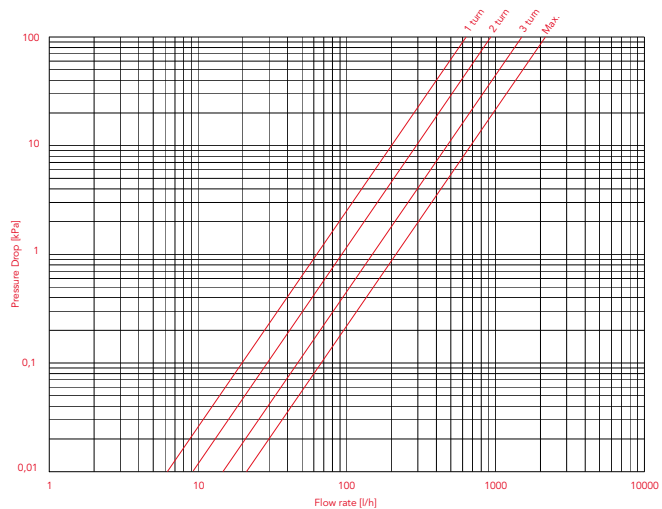
Art. 296S - 297S
Size: 1/2"

SIZE	1/2"			
Turn	1	2	3	Open
Kv	0.6	1.2	1.6	1.72



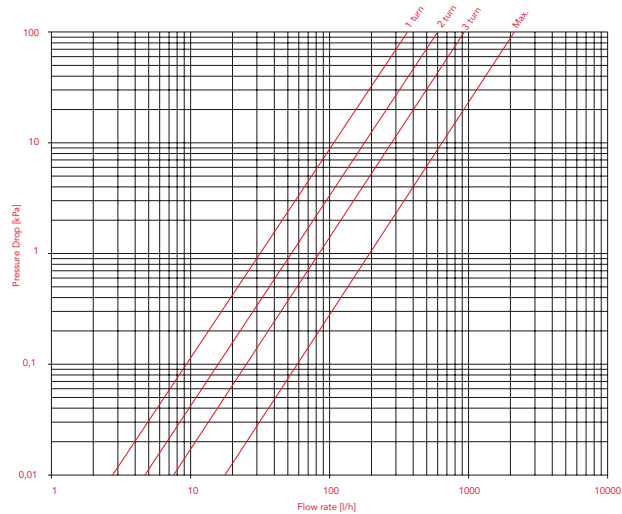
Art. 296S
Size: 3/4"

SIZE	3/4"			
Turn	1	2	3	Open
Kv	0.6	0.9	1.5	2.15



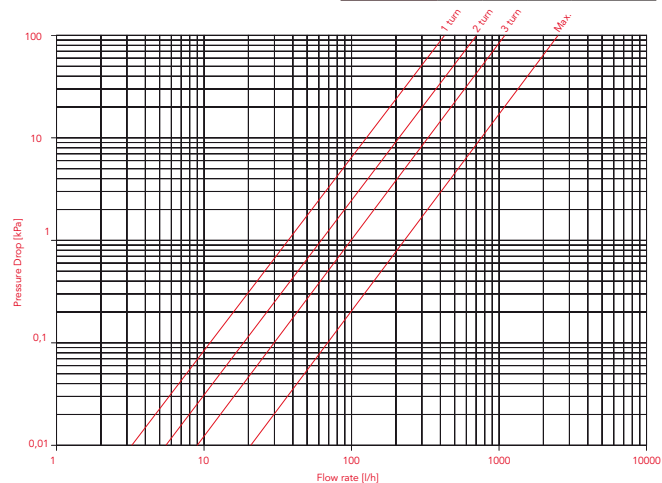
Art. 396S - 397S
Size: 1/2"

SIZE	3/8"			
Turn	1	2	3	Open
Kv	0.38	0.60	0.92	2.13



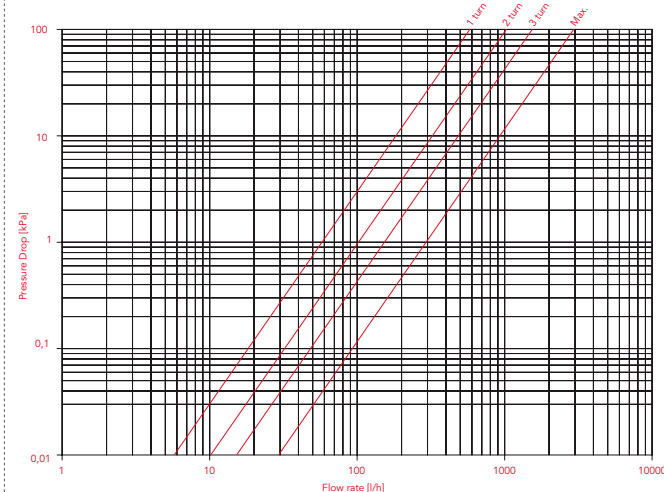
Art. 396S - 397S
Sizes: 3/8"

SIZE	1/2"			
Turn	1	2	3	Open
Kv	0.42	0.70	1.10	2.51



Art. 396S
Sizes: 3/4"

SIZE	3/4"			
Turn	1	2	3	Open
Kv	0.60	1.02	1.54	2.94

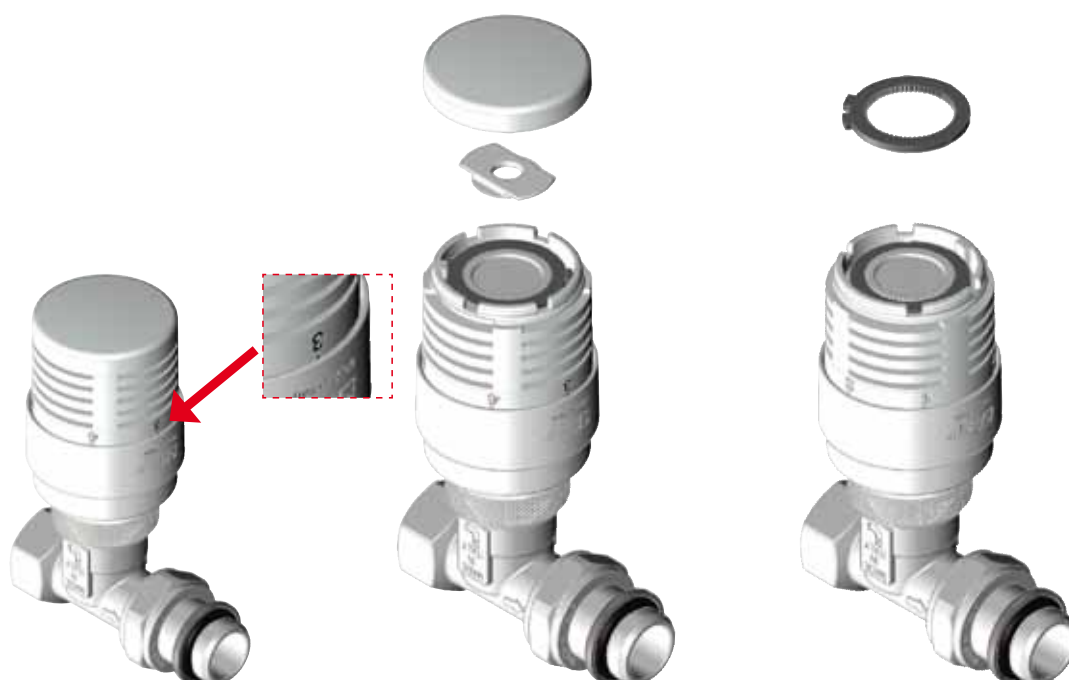
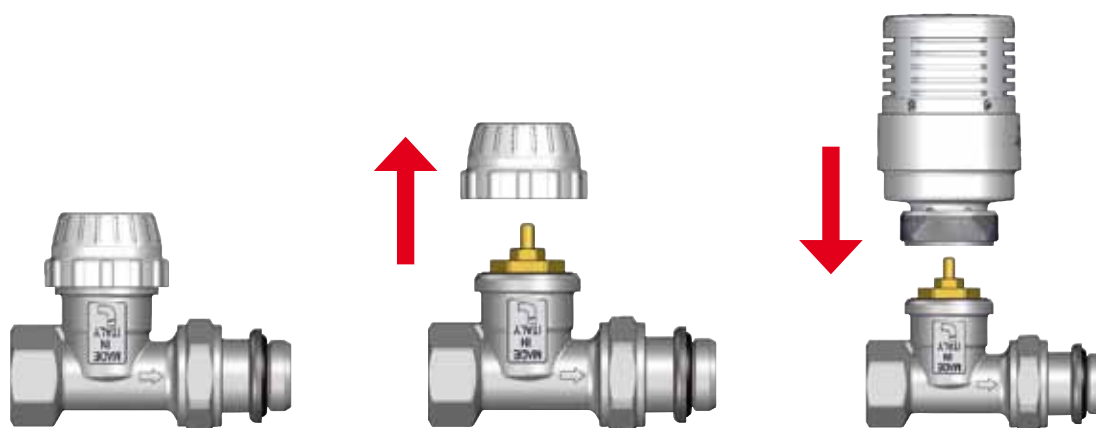


THERMOSTATIC HEAD SETTING

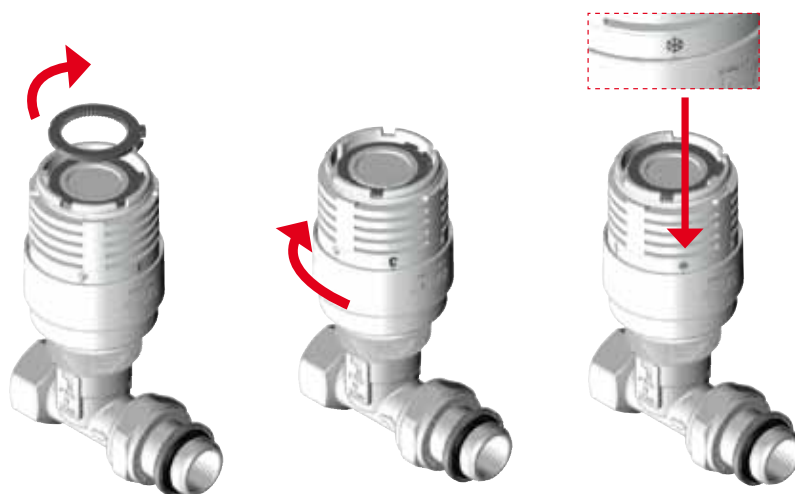
The thermostatic control head is provided with 6 positions: from anti-freeze 6,5°C to a totally open position with a maximum temperature of 28°C.

The THERMOSTATIC HEAD SETTING should be done during the installation, with some easy steps:

Remove the manual cap, install the thermostatic control head completely open (position 5)

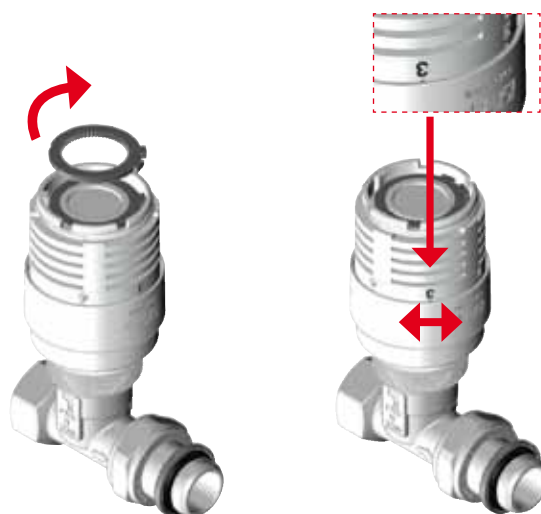


FROM "*" TO 3 RANGE SETTING



	1	2	3	4	5
6,5 °C	12°C	16°C	20°C	24°C	28°C

POSITION 3 SETTING



	1	2	3	4	5
6,5 °C	12°C	16°C	20°C	24°C	28°C

MANUAL VALVES AND LOCKSHIELDS



**100% MADE IN
ITALY.**

**ERGONOMIC
AND DESIGN
HANDLE.**



THE RANGE

VALVES AND LOCKSHIELDS

Body in nickel-plated brass.

Maximum working temperature: 110°C.

Maximum working pressure: 10 bar.

Threads: ISO 228 (equivalent to DIN EN ISO 228 and BS EN ISO 228).

1/2" male thread with conical seat and inner diameter mm.16.

Art. 294-296-394-396-294S-296S-394S-396S

To be used with iron piping or, together with an Itap-Fit® connector (art. 618), with copper, crosslinked polyethylene (PEX) or polybutylene. In the case of use with PEX or polybutylene it is also requested the use of the liner (art. 655).

Art. 295-297-395-397-295S-297S-395S-397S

To be used with multilayer, PEX or polybutylene piping, together with a Multi-Fit® connector (art. 510). Suitable also for copper piping, together with a compression fitting (art. 595).



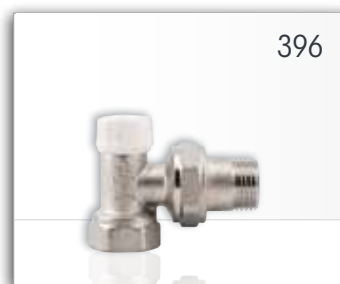
294



296



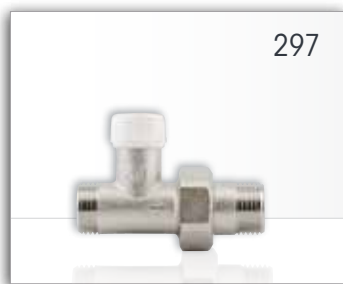
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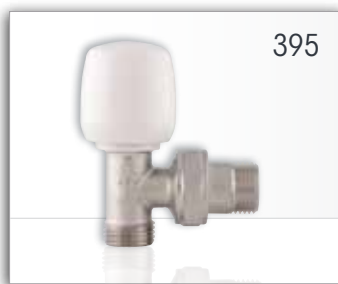
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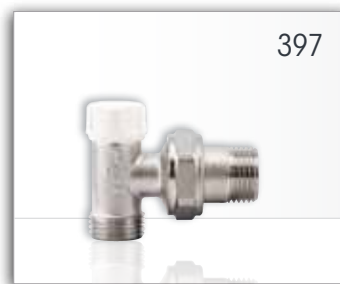
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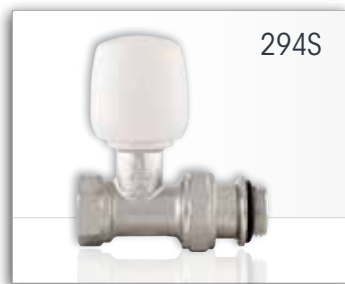
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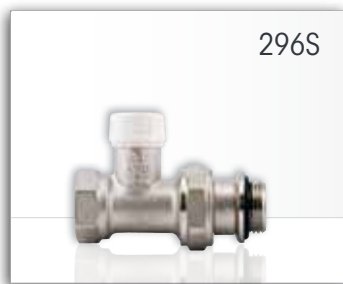
395



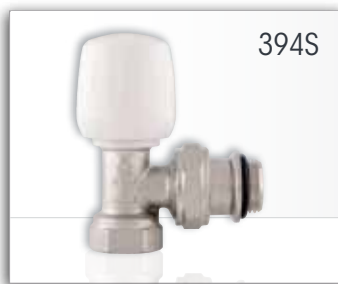
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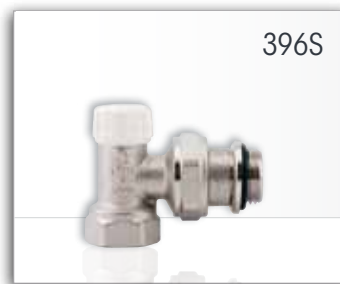
294S



296S



394S



396S



295S



297S

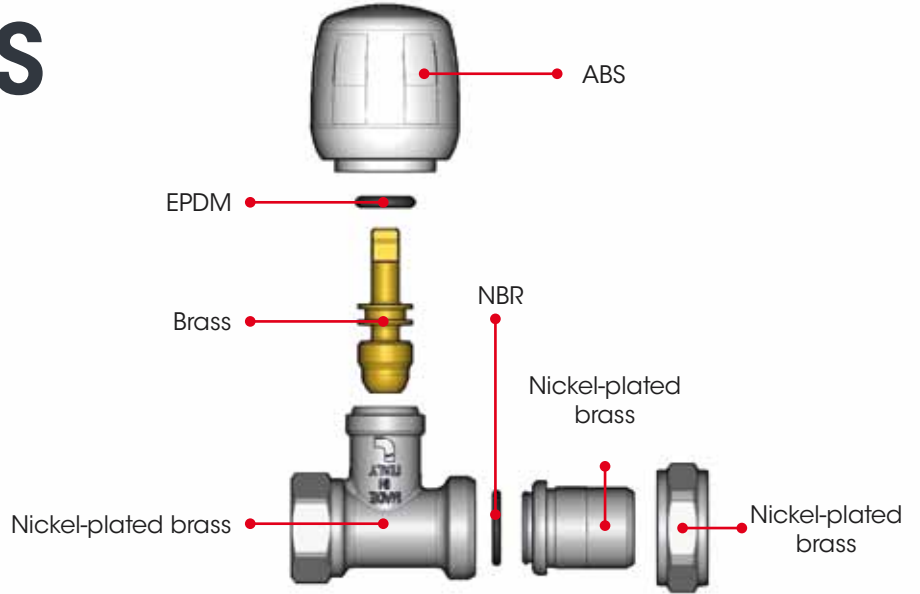


395S

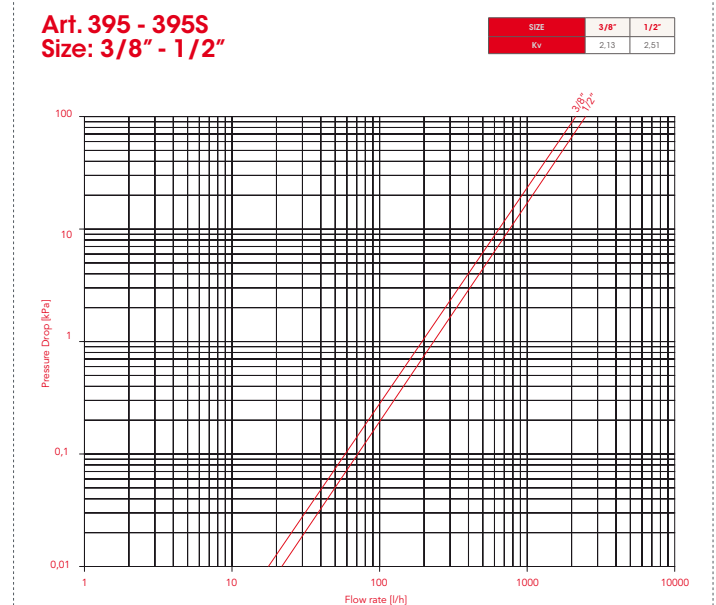
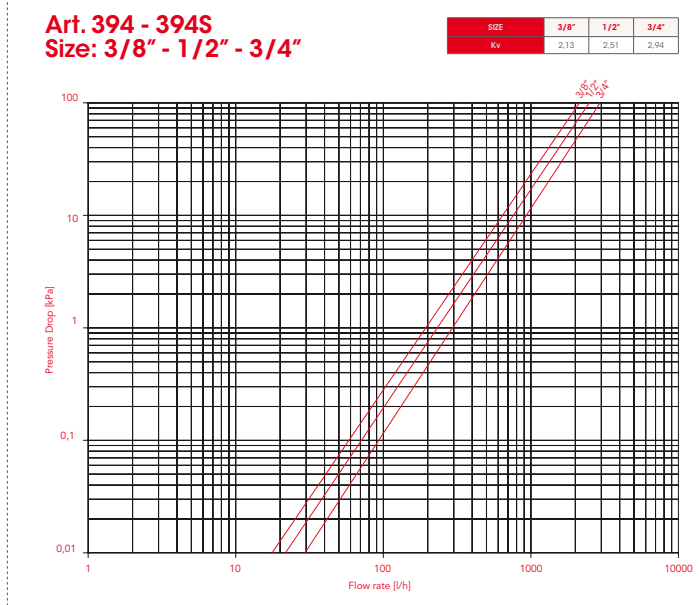
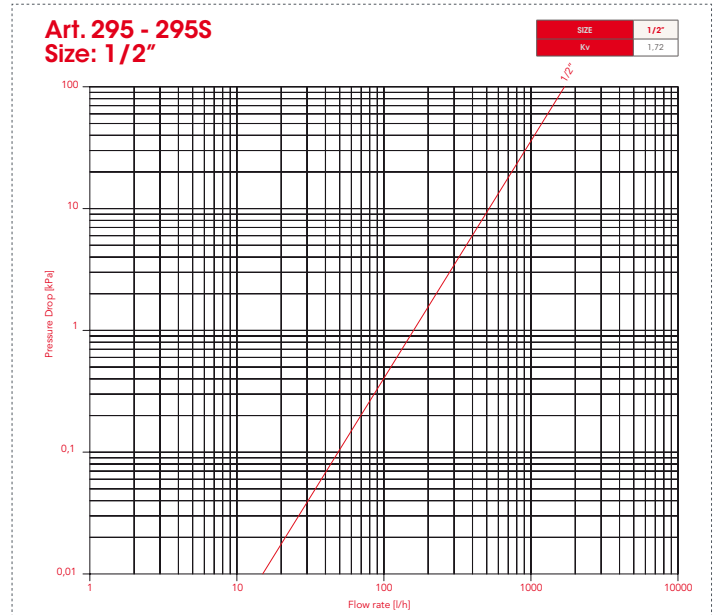
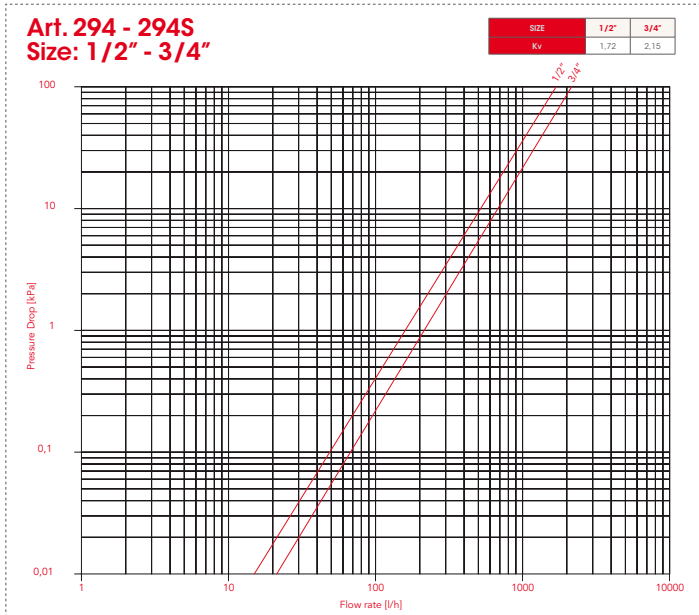


397S

MATERIALS VALVES

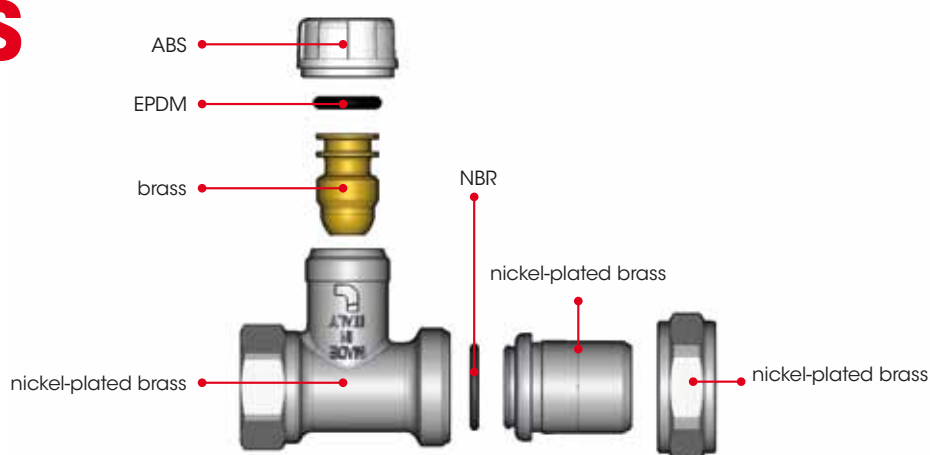


LOSS OF PRESSURE VALVES



MATERIALS

LOCKSHIELDS

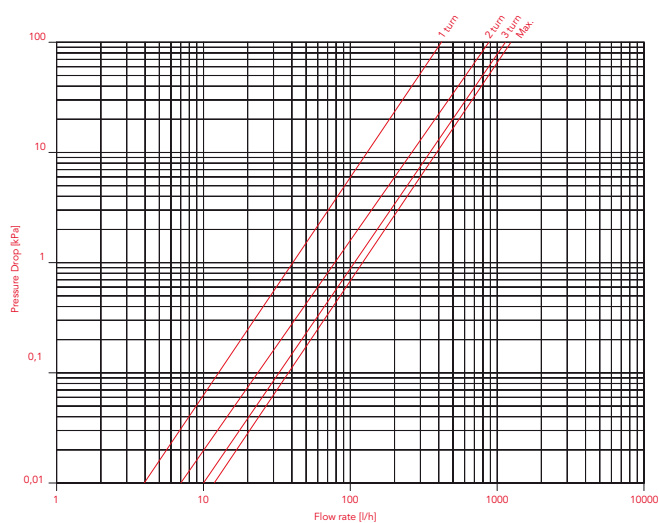


LOSS OF PRESSURE

LOCKSHIELDS

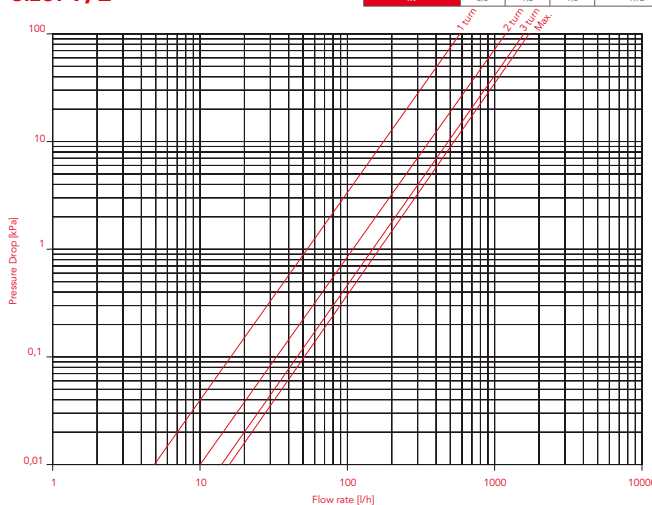
Art. 296 - 296S - 297 - 297S
Size: 3/8"

SIZE	3/8"			
Turn	1	2	3	Open
Kv	0.4	0.9	1.1	1.26



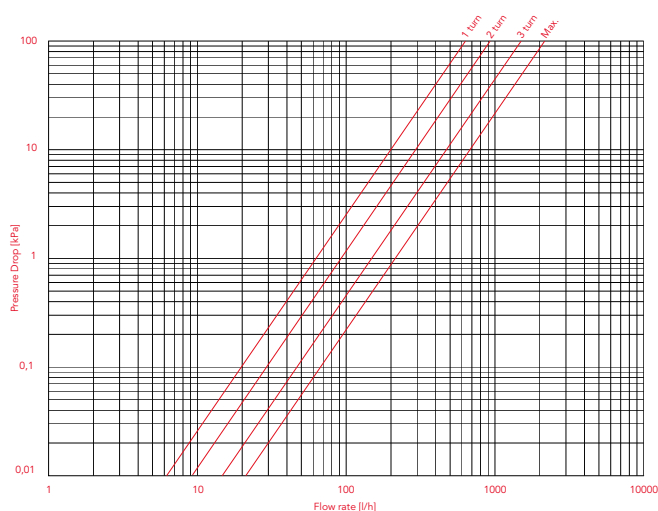
Art. 296 - 296S - 297 - 297S
Size: 1/2"

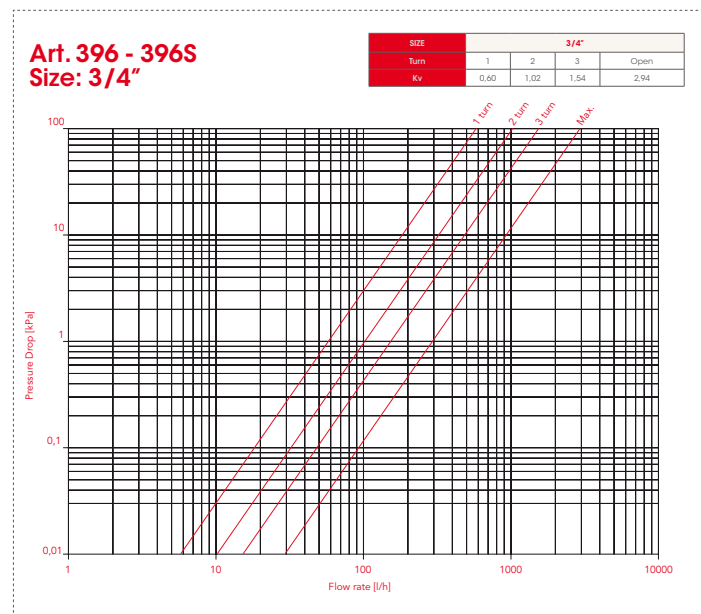
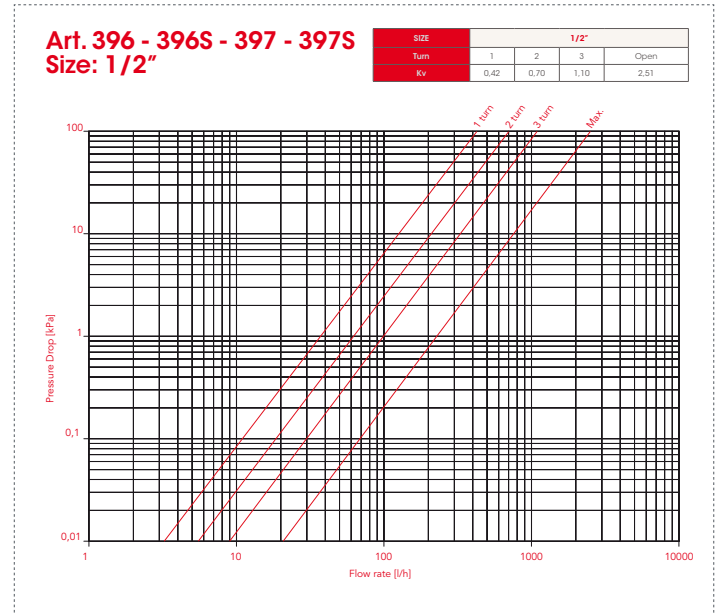
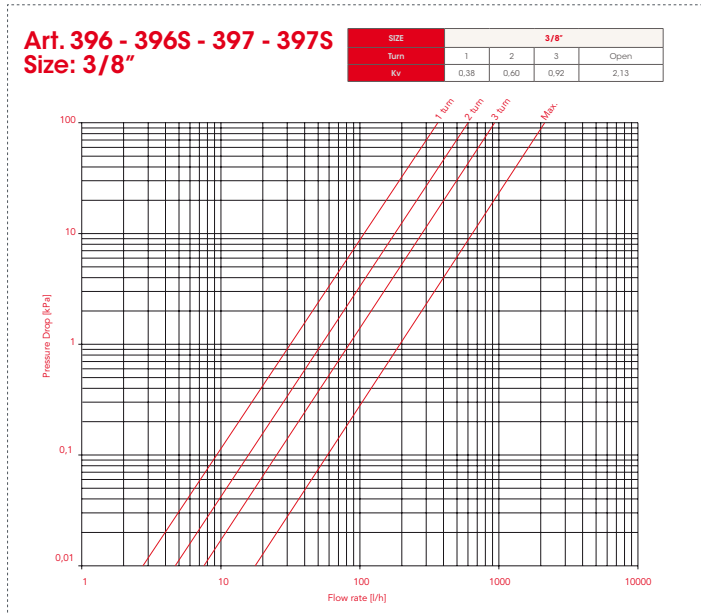
SIZE	1/2"			
Turn	1	2	3	Open
Kv	0.6	1.2	1.6	1.72



Art. 296 - 296S
Size: 3/4"

SIZE	3/4"			
Turn	1	2	3	Open
Kv	0.6	0.9	1.5	2.15







THERMOSTATIC REGULATION

THERMAL COMFORT
ENERGY SAVING



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