Thermostatic valves

220 series

01034/24 EN
replaces 01034/15 GB

028

Function

Thermostatic valves are typically used to regulate thermal medium at the radiators in heating systems.
When used in conjunction with a thermostatic control head, thermo-electric control or electronic control, they keep the ambient temperature of the room in which they are installed constant at the set value. This helps to prevent unwanted temperature increases while achieving consistent energy savings.

These valves are equipped with a special tailpiece with hydraulic rubber seal which allows quick and safe connection to the radiator without the aid of any other means of sealing.

Product range

VALVES:

For steel pipes:

220 series	Angled thermostatic radiator valve for iron pipe	sizes 3/8”, 1/2”, 3/4” (*)
221 series	Straight thermostatic radiator valve for iron pipe	sizes 3/8”, 1/2”, 3/4” (*)
224 series	Reverse thermostatic radiator valve for iron pipe	sizes 3/8”, 1/2”
225 series	Double square thermostatic radiator valve for iron pipe	sizes 3/8” and 1/2” right, 3/8” and 1/2” left
225 series	Double-angled lockshield valve for iron pipe	sizes 3/8” and 1/2” right, 3/8” and 1/2” left

For copper and plastic pipes:

222 series	Angled thermostatic radiator valve for copper pipe	sizes 3/8”, 1/2” radiator x 23 p.1,5 pipe
223 series	Straight thermostatic radiator valve for copper pipe	sizes 3/8”, 1/2”, radiator x 23 p.1,5 pipe
226 series	Double-angled thermostatic radiator valve for copper pipe	sizes 3/8”, 1/2” radiator x 23 p.1,5 pipe
226 series	Double-angled lockshield valve for copper pipe	sizes 3/8”, 1/2” radiator x 23 p.1,5 pipe
227 series	Reverse thermostatic radiator valve for copper pipe	size 1/2”, radiator x 23 p.1,5 pipe

THERMOSTATIC CONTROL HEADS

Code 199000 CNT	Thermostatic control head with built-in sensor with liquid-filled element	adjustment scale ❄ –5 corresponding to 7–28 °C
Code 199100	Thermostatic control head with remote sensor with liquid-filled sensitive element	adjustment scale ❄ –5 corresponding to 7–28 °C
200 series	Thermostatic control head with built-in sensor with liquid-filled element	adjustment scale ❄ –5 corresponding to 7–28 °C
201 series	Thermostatic control head with remote sensor with liquid-filled sensitive element	adjustment scale ❄ –5 corresponding to 7–28 °C
202 series	Thermostatic control head with temperature indicator	adjustment scale ❄ –5 corresponding to 7–28 °C
203 series	Thermostatic control head with contact probe for temperature restriction of the medium	graduated scale 20–50 °C, 40–90 °C
Code 209000	Tamper-proof and anti-theft cap for public installations	
Code 209001	Special wrench for tightening tamperproof antitheft cap	

* *3/4” with tailpiece without rubber seal*

Technical specifications of valves

Material

Body:	brass EN 12165 CW617N, chrome plated
Obturator control stem:	stainless steel EN 10088-3 (AISI 303)
Hydraulic seals:	EPDM
Protective cap:	ABS (RAL 9010)

Performance

Medium: water, glycol solutions	
Maximum percentage of glycol:	30 %
Maximum differential pressure with control fitted:	1 bar
Maximum working pressure:	10 bar
Medium working temperature range:	5–100 °C

Adjustment scale of 199/200/201 series control heads

0	❄	1	2 • • • 3 • • • 4	5
5°C	7°C	12°C	16°C 20°C 24°C	28°C

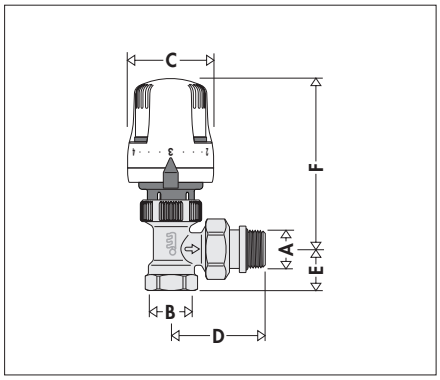
Technical specifications of 199/200/201/202 series thermostatic control heads

Adjustment scale:	❄–5
Adjustment temperature range:	7–28 °C
Frost protection cut-in:	7 °C
Storage temperature:	-10–50 °C
Length of capillary pipe 201 series and code 199100:	2 m
Ambient temperature indicator 202 series:	16–26 °C

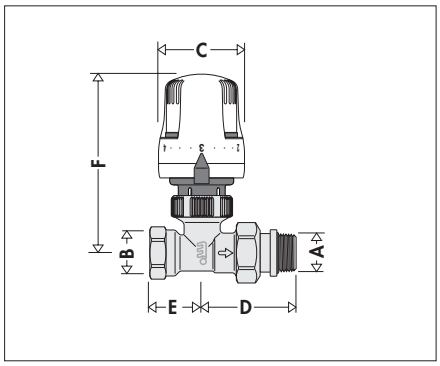
Technical specifications of 203 series thermo-electric actuators

Adjustment scale:	- code 203502	20–50 °C
	- code 203702	40–90 °C
Maximum temperature of sensor:		100 °C
Maximum pressure of pocket:		10 bar
Length of capillary pipe:		2 m

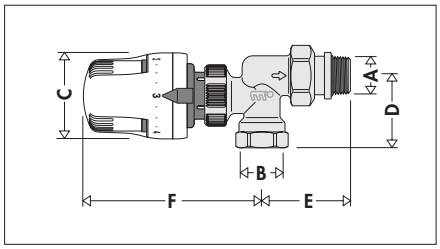
Dimensions



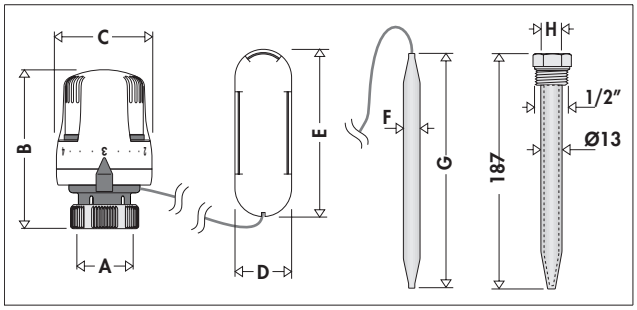
Code	A	B	C	D	E	F
220302 + **200**001	3/8"	3/8"	48	48	20	100
220402 + **200**001	1/2"	1/2"	48	52,5	23	100
220500 + **200**001	3/4"	3/4"	48	62	26	100



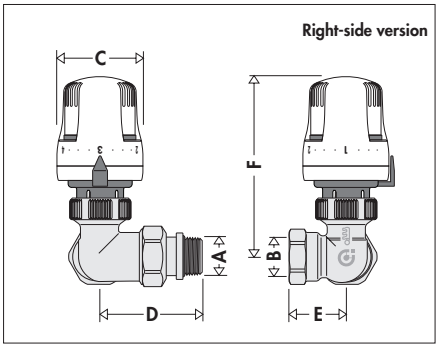
Code	A	B	C	D	E	F
221302 + **200**001	3/8"	3/8"	48	48	26	104
221402 + **200**001	1/2"	1/2"	48	52,5	29	104
221500 + **200**001	3/4"	3/4"	48	62	35	104



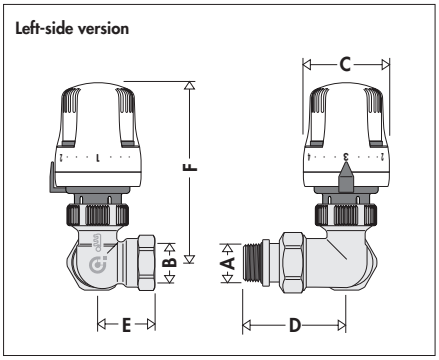
Code	A	B	C	D	E	F
224302 + **200**001	3/8"	3/8"	48	35	45	104
224402 + **200**001	1/2"	1/2"	48	40	51	104



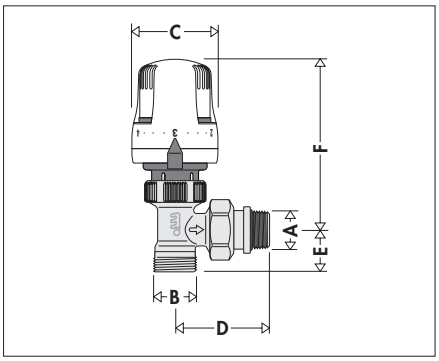
Code	A	B	C	D	E	F	G	Code	H
200001	30 p.1,5	80	48						
201000	30 p.1,5	80	48	33	95				
203502	30 p.1,5	80	48			Ø 11	158	**475**002	11,5
203702	30 p.1,5	80	48			Ø 9,5	134	**475**003	10



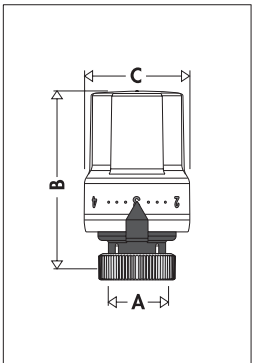
Code	A	B	C	D	E	F
225312 + **200**001	3/8"	3/8"	48	51	25	104
225412 + **200**001	1/2"	1/2"	48	57	30	104



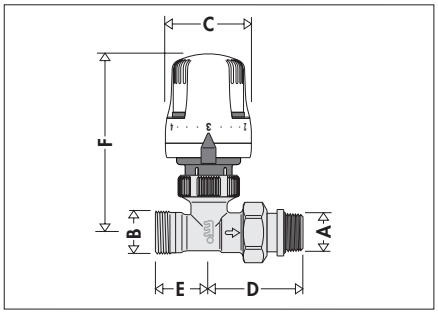
Code	A	B	C	D	E	F
225322 + **200**001	3/8"	3/8"	48	51	25	104
225422 + **200**001	1/2"	1/2"	48	57	30	104



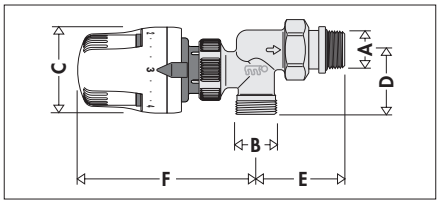
Code	A	B	C	D	E	F
222402 + **200**001	1/2"	23 p.1,5	48	52,5	20,5	100
222302 + **200**001	3/8"	23 p.1,5	48	48	17,5	100



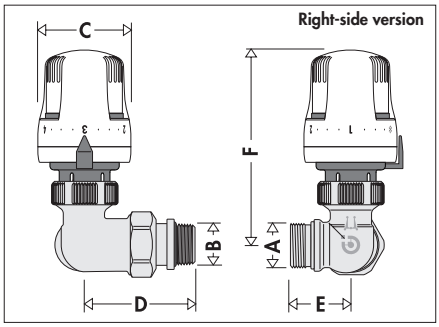
Code	A	B	C
202000	30 p. 1,5	85	48



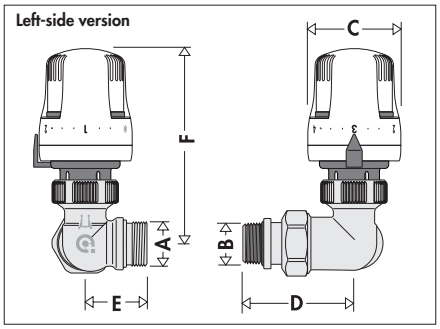
Code	A	B	C	D	E	F
223402 + **200**001	1/2"	23 p.1,5	48	52,5	24	104
223302 + **200**001	3/8"	23 p.1,5	48	48	21	104



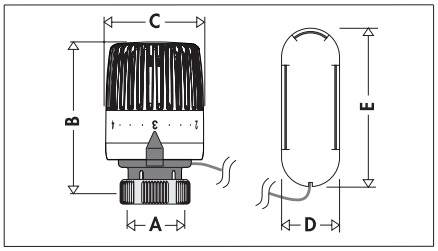
Code	A	B	C	D	E	F
227402 + **200**001	1/2"	23 p.1,5	48	37	51	104



Code	A	B	C	D	E	F
226312 + **200**001	23 p. 1,5	3/8"	48	57	27,5	104
226412 + **200**001	23 p. 1,5	1/2"	48	57	27,5	104



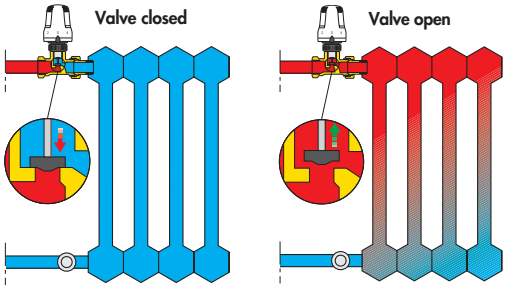
Code	A	B	C	D	E	F
226322 + **200**001	23 p. 1,5	3/8"	48	57	27,5	104
226422 + **200**001	23 p. 1,5	1/2"	48	57	27,5	104



Code	A	B	C	D	E
199000	30 p. 1,5	74	48		
199100	30 p. 1,5	74	48	33	95

Operating principle of thermostatic control head

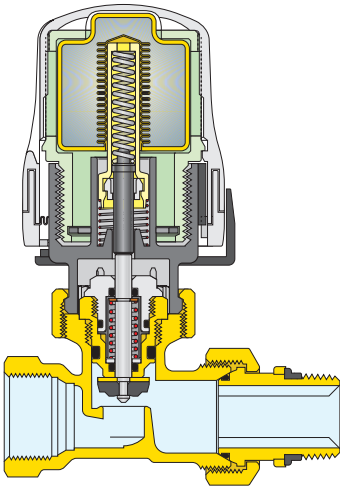
The control device of the thermostatic valve is a proportional temperature regulator, composed of a bellows containing a specific thermostatic fluid. As the temperature increases, the liquid increases in volume and causes the bellows to expand. As the temperature decreases, the inverse process occurs; the bellows contracts due to the thrust of the counter-spring. The axial movements of the sensitive element are transmitted to the valve actuator by means of the connecting stem, thereby adjusting the flow of liquid in the heat emitter.



Construction details

Valve

The stainless steel control ste
has a double EPDM O-Ring sea
In this way the upper portion
the headwork can be replace
even with the system running.
The obturator is shaped s
as to optimise the hydraul
characteristics of the valv
during the progressive openir
or closing action in thermostat
operation.
The wide passage betwee
the seat and obturator cause
reduced pressure drops
manual operation.



Tailpiece with rubber seal

The radiator connection thread union is equipped with a special shaped rubber ring. This system ensures a hydraulic seal without using additional sealing materials such as hemp or PTFE tape.

202 series thermostatic control head with temperature indicator

Ambient temperature indicator

The ambient temperature indicator, whose thermostatic control head is mounted on the front, is of the LCD type. It highlights the actual room temperature reading in green, to enable precise regulation of the temperature to the desired value.

Visible in sufficient light levels

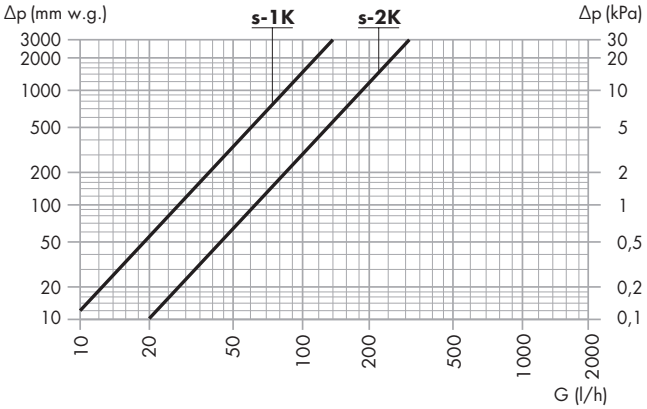
Rocker system

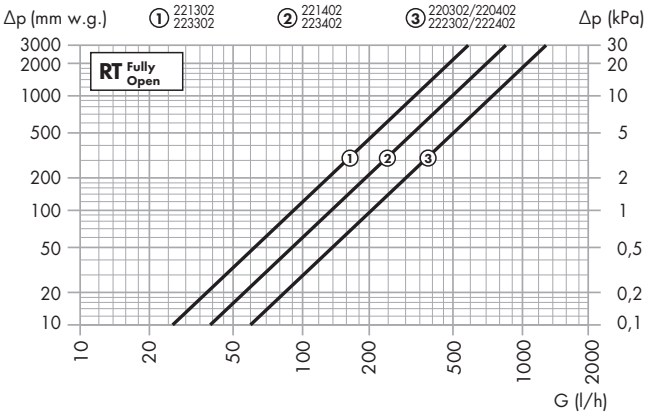
The indicator is equipped with a special rocker which keeps it in a vertical position at all times, for ease of reading.

Hydraulic characteristics

Data is provided in accordance with the specifications in EN standard 215.

Thermostatic valves with angled connections 220 series, with straight connections 221 series, for iron pipe (3/8" and 1/2") and thermostatic control heads with angled connections 222 series and with straight connections 223 series for copper pipe (3/8" - 1/2")(*); with thermostatic control head 200 or 201 series.





Valves with angled connections

Code	Size	Kv (m³/h) Proportional band (K)				
		1	1,5	2	3	Kvs
220302/**222**302	3/8"	0,32	0,49	0,57	0,85	2,29
220402/**222**402	1/2"	0,32	0,49	0,57/0,54	0,85	2,39

Code	Size	Nominal flow rate (l/h)	Obturator power	Diff. Press. (bar)
220302/**222**302	3/8"	180	0,92	0,1
220402/**222**402	1/2"	180 (170**)	0,92	0,1

**with control heads code 201000 and 199100

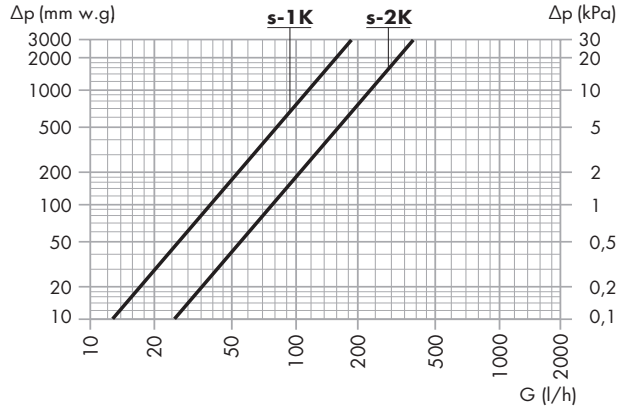
Valves with straight connections

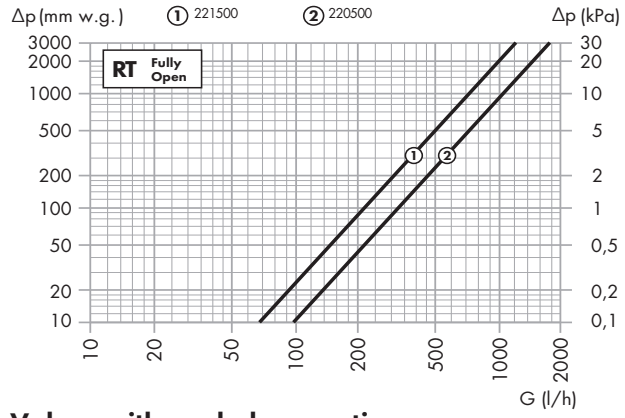
Code	Size	Kv (m³/h) Proportional band (K)				
		1	1,5	2	3	Kvs
221302/**223**302	3/8"	0,32	0,49	0,57	0,85	1,09
221402/**223**402	1/2"	0,32	0,49	0,57/0,63	0,85	1,52

Code	Size	Nominal flow rate (l/h)	Obturator power	Diff. Press. (bar)
221302/**223**302	3/8"	180	0,60	0,1
221402/**223**402	1/2"	180/200	0,60	0,1

Kv = *Flow rate in m³/h which produces a pressure drop of 1 bar*
Kvs = *Kv with fully open valve*

Thermostatic valves with angled connections 220 series, with straight connections 221 series, for iron pipe (3/4") (*); with thermostatic control head 200 or 201 series.





Valves with angled connections

Code	Size	Kv (m³/h) Proportional band (K)				
		1	1,5	2	3	Kvs
220500	3/4"	0,40	0,63	0,76	1,00	3,19

Code	Size	Nominal flow rate (l/h)	Obturator power	Diff. Press. (bar)
220500	3/4"	240	0,93	0,1

Valves with straight connections

Code	Size	Kv (m³/h) Proportional band (K)				
		1	1,5	2	3	Kvs
221500	3/4"	0,40	0,63	0,76	1,00	2,20

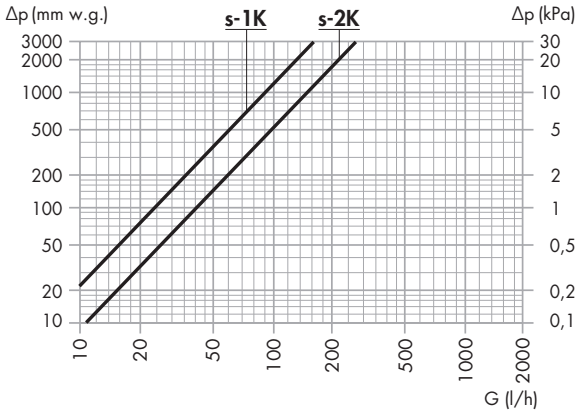
Code	Size	Nominal flow rate (l/h)	Obturator power	Diff. Press. (bar)
221500	3/4"	240	0,86	0,1

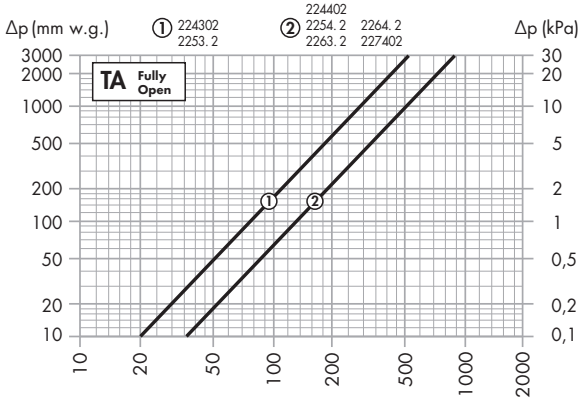
(*) Certification

Caleffi valves in the 220, 221 series, sizes 3/8", 1/2" and 3/4"; 224 and 225 series, sizes 3/8" and 1/2"; 222, 223, 226 and 227 series (size 1/2"); used in conjunction with control heads in the 199, 200 and 201 series, are certified in compliance with EN standard 215. 202 and 203 series control heads are not certified in compliance with EN standard 215. Additional information available on request.

Code Code	Hysteresis Hysteresis [C]	Differential pressure influence Differential pressure influence [D]	Water temperature influence Water temperature influence [W]	Response time Response time [Z]	Control accuracy - CA value Control accuracy - CA value [CA]
200000	0,4 K	0,5 K	1 K	18 minutes	0,6 K
199000 CNT	0,4 K	0,5 K	1 K	33 minutes	0,6 K
201000 **199**100	0,4 K	0,5 K	0,5 K	18 minutes	0,2 K

Thermostatic radiator valves with reverse connections for iron pipe 224 series and for copper pipe 227 series (3/8" and 1/2") (*) and double-angled thermostatic radiator valves for iron pipe 225 series and for copper pipe 226 series (3/8" and 1/2") with thermostatic control head 199, 200 or 201 series.





Valves with reverse connections

Code	Size	Kv (m³/h) Banda proporzionale (K)				
		1	1,5	2	3	Kvs
224302	3/8"	0,36	0,49	0,54	0,77	0,93
224402	1/2"	0,36	0,49	0,57	0,77	1,39
227402	1/2"	0,36	0,49	0,57	0,77	1,39

Code	Size	Nominal flow rate (l/h)	Obturator power	Diff. Press. (bar)
224302	3/8"	170	0,65	0,1
224402	1/2"	180	0,93	0,1
227402	1/2"	180	0,93	0,1

Valves with double square connections

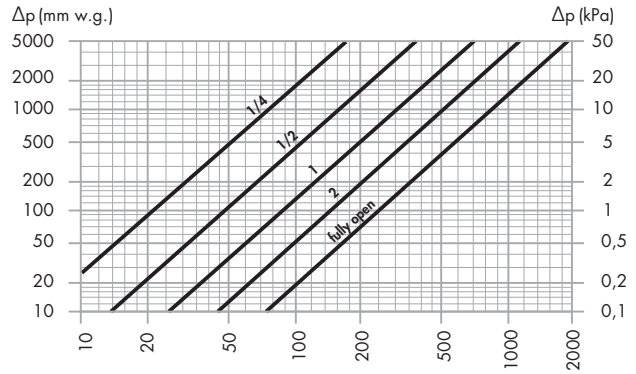
Code	Size	Kv (m³/h) Proportional band (K)				
		1	1,5	2	3	Kvs
2253.2	3/8"	0,36	0,49	0,57	0,77	0,96
2254.2	1/2"	0,36	0,49	0,57	0,77	1,40
2263.2	3/8"	0,36	0,49	0,57	0,77	0,96
2264.2	1/2"	0,36	0,49	0,57	0,77	1,40

Code	Size	Nominal flow rate (l/h)	Obturator power	Diff. Press. (bar)
2253.2	3/8"	180	0,60	0,1
2254.2	1/2"	180	0,80	0,1
2263.2	3/8"	180	0,60	0,1
2264.2	1/2"	180	0,80	0,1

System sizing

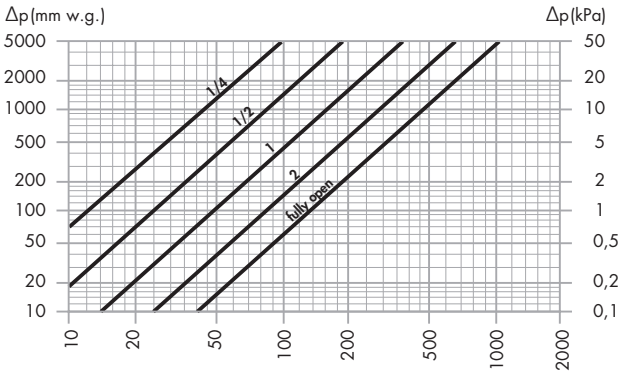
To correctly size the system, the valves are normally chosen by identifying the pressure drop according to the flow rate on the s-2K diagrams shown above (adjustment with 2K proportional band).

Angled connections lockshield 3/8", 342 and 431 series



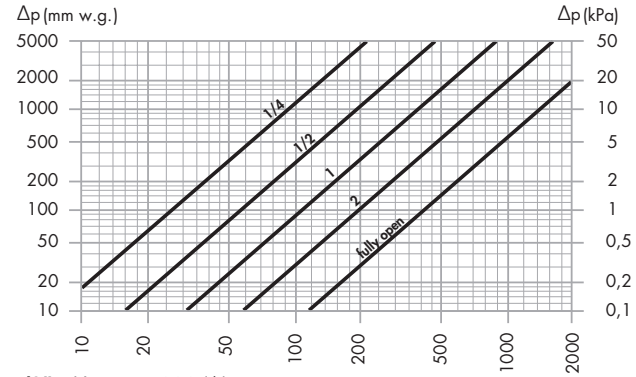
3/8" Kv $_{0,01}$= 242 l/ h

Straight connections lockshield 3/8", 343 and 432 series



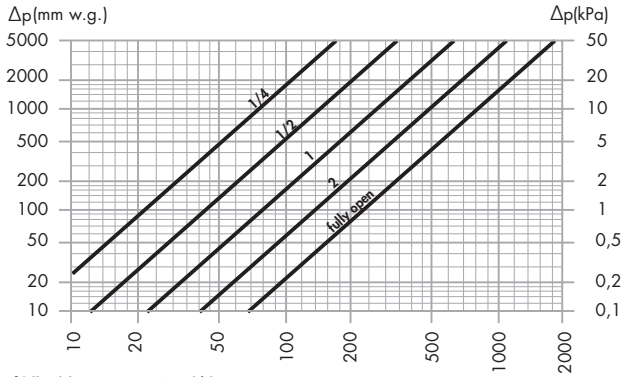
3/8" Kv $_{0,01}$= 132 l/ h

Angled connections lockshield 1/2", 342 and 431 series



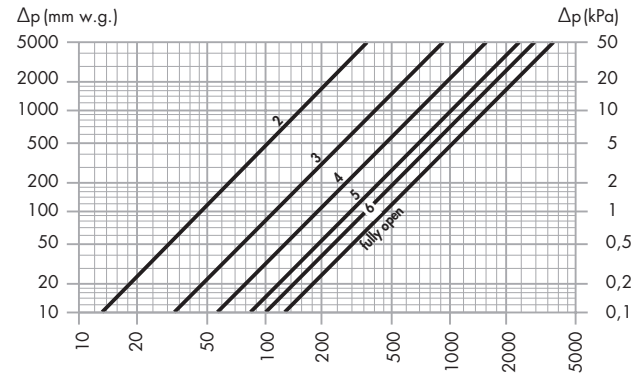
1/2" Kv $_{0,01}$= 399 l/ h

Straight connections lockshield 1/2", 343 and 432 series



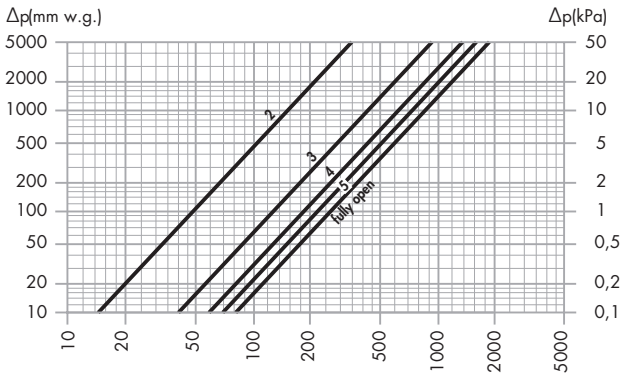
1/2" Kv $_{0,01}$= 217 l/ h

Angled connections lockshield 3/4", 431 series



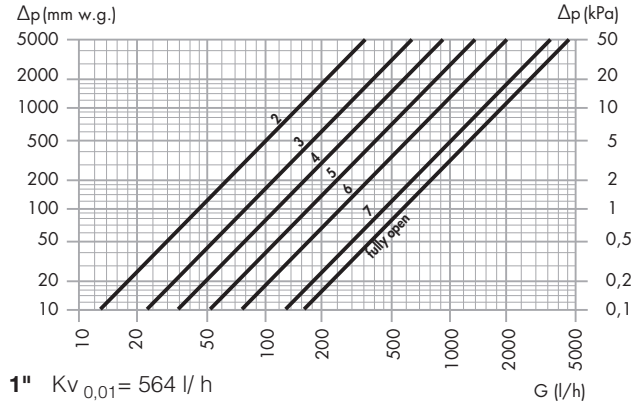
3/4" Kv $_{0,01}$= 452 l/ h

Straight connections lockshield 3/4", 432 series



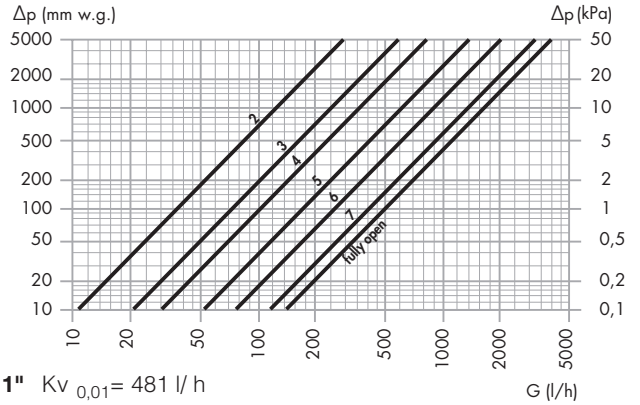
3/4" Kv $_{0,01}$= 258 l/ h

Angled connections lockshield 1", 431 series



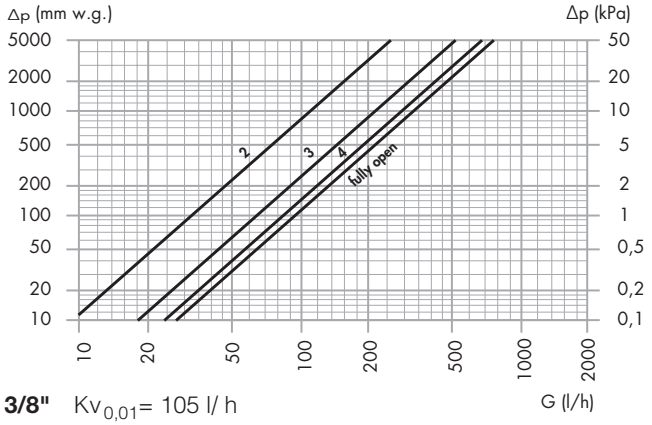
1" Kv $_{0,01}$= 564 l/ h

Straight connections lockshield 1", 432 series



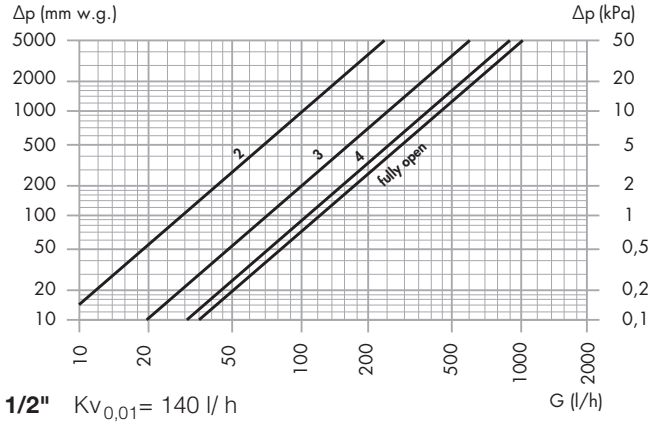
1" Kv $_{0,01}$= 481 l/ h

Double-angled lockshield valves 3/8", 225 series



3/8" $Kv_{0,01}$= 105 l/ h

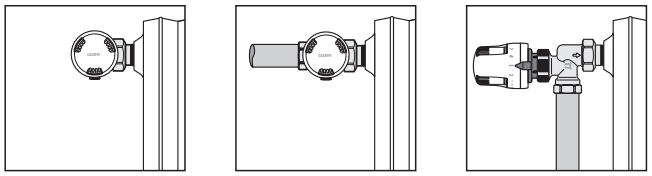
Double-angled lockshield valves 1/2", 225 and 226 series
3/8", 226 series



1/2" $Kv_{0,01}$= 140 l/ h

Installation

The thermostatic control heads should be installed in a horizontal position, in accordance with the direction of flow indicated by the arrow on the valve body.

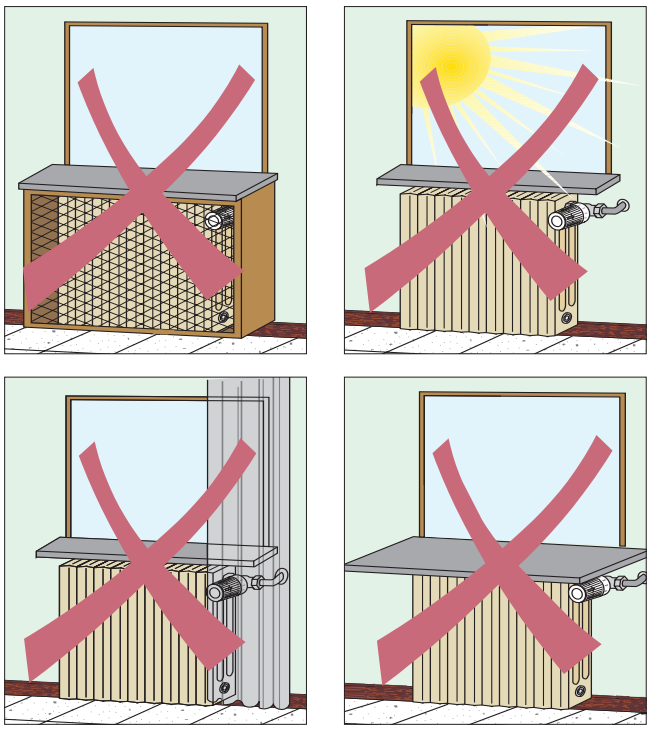


Warnings: In the event of incorrect installation of the valve complete with thermostatic control head, two possible problems may arise in the system:

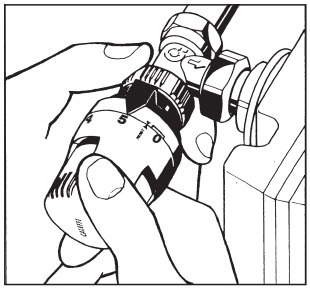
1) Vibrations similar to a thumping noise can be attributed to the fact that the medium is running through the valve in the opposite direction to the one indicated by the arrow on the body. To put a stop to this inconvenience, simply restore the correct flow direction.

2) A sound or whooshing during modulation is due to the fact that the valve is subject to excessive head. To overcome this inconvenience, simply keep the system pressure under control by providing devices such as variable-speed pumps in conjunction with differential pressure regulating valves, or by using differential by-pass valves.

The sensitive element of the thermostatic control heads must never be installed in niches or radiator cabinets, behind curtains, in areas exposed to direct sunlight or underneath very deep shelves, otherwise it may produce false readings. In these situations it is essential to use the thermostatic control head with remote sensor code 201000 or code 199100.



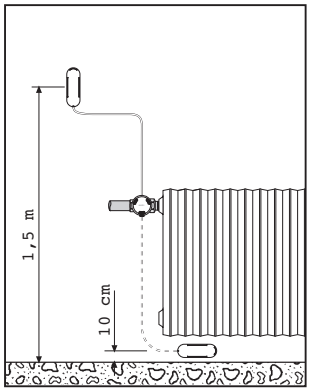
Before installing the thermostatic control head, set the knob to no. 5.



Control with remote probe

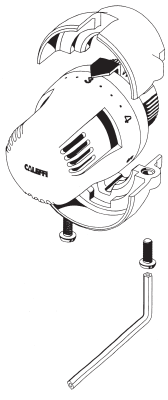
In some situations, it may not be possible to install the thermostatic control head horizontally (for example, when the control head would interfere with the opening of a door). In these cases, **when the thermostatic control head with remote sensor is used, the control head can also be installed vertically**, thanks to the external sensor which guarantees correct reading of the ambient temperature.

To use the thermostatic control head with remote sensor, it is necessary to install it at a height between 10 cm and 1,5 m inclusive.



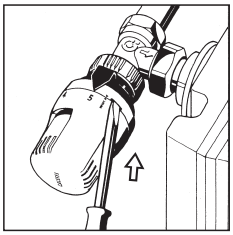
Tamper-proof and anti-theft cap

The tamper-proof and anti-theft version of the thermostatic control head in the 200, 202 and 199000 CNT series can be obtained by fitting the relevant cap (code 209000) onto the knob, as shown opposite. It is secured with two screws featuring a special head that can only be tightened by using the special wrench (code 209001).

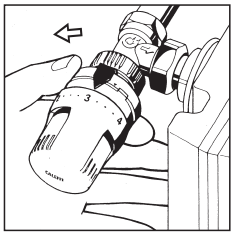


Thermostatic control head temperature restriction and locking

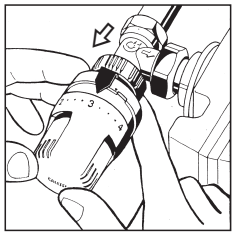
Temperature restriction



1. Turn the knob to the fully open position (Pos. 5). Use a screwdriver to release the locking nut and push it towards the valve body until it is fully up against it.

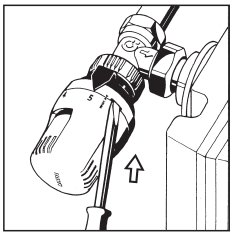


2. Turn the knob to the new desired fully open position (example pos. 3). Turn the locking nut **counter-clockwise** to its limit.

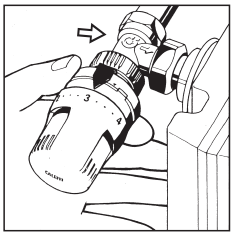


3. Re-engage the locking nut. The valve is now set for temperature limiting in the temperature range between 0 and the new set value.

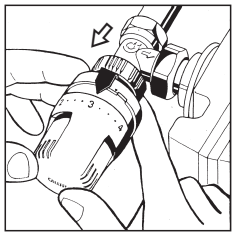
Locking the temperature



1. Turn the knob to the fully open position (Pos. 5). Use a screwdriver to release the locking nut and push it towards the valve body until it is fully up against it.

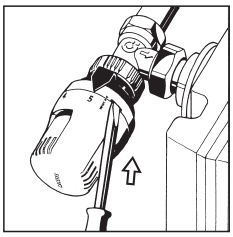


2. Set the valve to the desired temperature and turn the locking nut **clockwise**, to its limit.

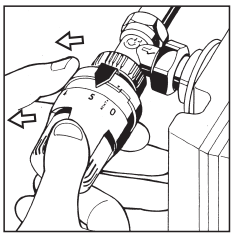


3. Re-engage the locking nut. The valve is now locked at the new temperature setting.

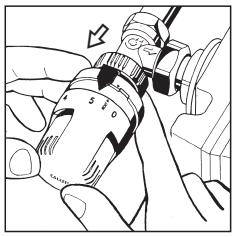
Resetting the restriction and temperature locking



1. Use a screwdriver to release the locking nut and push it towards the valve body until it is fully up against it.



2. Turn the knob to its fully opened position, and the locking nut **counter-clockwise**, to its limit. The RESET arrows will match.



3. Re-engage the locking nut. The valve now has no limit or lock settings.

SPECIFICATION SUMMARY

220 series
Thermostatic radiator valve fitted for thermostatic control heads, electronic and thermo-electric actuators. Angled connections for iron pipe 3/8", 1/2" and 3/4". Connection to radiator 3/8" and 1/2" M with tailpiece supplied with EPDM sealing gasket, 3/4" with tailpiece without rubber seal. Brass body. Chrome plated. Protective cap in ABS, white RAL 9010. Double seal on control stem with EPDM O-Ring. Working temperature range 5–100 °C. Maximum working pressure 10 bar.

221 series
Thermostatic radiator valve fitted for thermostatic control heads, electronic and thermo-electric actuators. Straight connections for iron pipe 3/8", 1/2" and 3/4". Connection to radiator 3/8" and 1/2" M with tailpiece supplied with EPDM sealing gasket, 3/4" M with tailpiece without rubber seal. Brass body. Chrome plated. Protective cap in ABS, white RAL 9010. Double seal on control stem with EPDM O-Ring. Working temperature range 5–100 °C. Maximum working pressure 10 bar.

222 series
Thermostatic radiator valve fitted for thermostatic control heads, electronic and thermo-electric actuators. Angled connections for copper and plastic pipe, simple and multi-layer, 23 p.1,5 M. Connection to radiator 3/8" and 1/2" M with tailpiece equipped with EPDM sealing gasket. Brass body. Chrome plated. Protective cap in ABS, white RAL 9010. Double seal on control stem with EPDM O-Ring. Working temperature range 5–100 °C. Maximum working pressure 10 bar.

223 series
Thermostatic radiator valve fitted for thermostatic control heads, electronic and thermo-electric actuators. Straight connections for copper and plastic pipe, simple and multi-layer, 23 p.1,5 M. Connection to radiator 3/8" and 1/2" M with tailpiece equipped with EPDM sealing gasket. Brass body. Chrome plated. Protective cap in ABS, white RAL 9010. Double seal on control stem with EPDM O-Ring. Working temperature range 5–100 °C. Maximum working pressure 10 bar.

224 series
Thermostatic radiator valve fitted for thermostatic control heads, electronic and thermo-electric actuators. Reverse connections for iron pipe 3/8" e 1/2" F. Connection to radiator 3/8" and 1/2" M with tailpiece equipped with EPDM sealing gasket. Brass body. Chrome plated. Protective cap in ABS, white RAL 9010. Double seal on control stem with EPDM O-Ring. Working temperature range 5–100 °C. Maximum working pressure 10 bar.

225 series
Thermostatic radiator valve fitted for thermostatic control heads, electronic and thermo-electric actuators. Double square connections for iron pipe 3/8" e 1/2" F. Connection to radiator 3/8" and 1/2" M right or left with tailpiece equipped with EPDM sealing gasket. Brass body. Chrome plated. Protective cap in ABS, white RAL 9010. Double seal on control stem with EPDM O-Ring. Working temperature range 5–100 °C. Maximum working pressure 10 bar.

225 series
Lockshield valve. Double square connections for iron pipe 3/8" and 1/2". Connection to radiator 3/8" and 1/2" left or right with tailpiece equipped with EPDM sealing gasket. Brass body. Chrome plated. ABS white RAL 9010 protective cap. Working temperature range 5–100 °C. Maximum working pressure 10 bar.

226 series
Thermostatic radiator valve fitted for thermostatic control heads, electronic and thermo-electric actuators. Double square connections for copper and plastic pipe, simple or multi-layer, 23 p.1,5 M. Connection to radiator 3/8" and 1/2" right or left with tailpiece equipped with EPDM sealing gasket. Brass body. Chrome plated. ABS white RAL 9010 protective cap. Double seal on control stem with EPDM O-Ring. Working temperature range 5–100 °C. Maximum working pressure 10 bar.

226 series
Lockshield valve. Double square connections for copper and plastic pipe, simple or multi-layer, 23 p.1,5 M. Connection to radiator 3/8" and 1/2" right or left with tailpiece equipped with EPDM sealing gasket. Brass body. Chrome plated. ABS white RAL 9010 protective cap. Working temperature range 5–100 °C. Maximum working pressure 10 bar.

227 series
Thermostatic radiator valve fitted for thermostatic control heads, electronic and thermo-electric actuators. Reverse connection for copper and plastic pipe, simple and multi-layer, 23 p.1,5 M. Connection to radiator 1/2" M with tailpiece equipped with EPDM sealing gasket. Brass body. Chrome plated. Protective cap in ABS, white RAL 9010. Double seal on control stem with EPDM O-Ring. Working temperature range 5–100 °C. Maximum working pressure 10 bar.

342 series
Lockshield valve. Angled connections for copper, single-layer or multi-layer plastic pipes. Connections of pipe 23 p.1.5 and 3/4" M. Connection to radiator 3/8" or 1/2" M with tailpiece equipped with EPDM sealing gasket. Brass body. Chrome plated. ABS white RAL 9010 protective cap. Outward seal consisting of EPDM O-rings on the control stem. Working temperature range 5–100 °C. Maximum working pressure 10 bar.

343 series
Lockshield valve. Straight connections for copper, single-layer or multi-layer plastic pipes. Connections of pipe 23 p.1.5 and 3/4" M. Connection to radiator 3/8" or 1/2" M with tailpiece equipped with EPDM sealing gasket. Brass body. Chrome plated. ABS white RAL 9010 protective cap. Outward seal consisting of EPDM O-rings on the control stem. Working temperature range 5–100 °C. Maximum working pressure 10 bar.

431 series
Lockshield valve. Angled connections, for iron pipe 3/8", 1/2", 3/4" or 1" F. Connection to radiator 3/8" or 1/2" M with tailpiece supplied with EPDM sealing gasket, 3/4" and 1" M with tailpiece without rubber seal. Brass body. Chrome plated. ABS white RAL 9010 protective cap. Outward seal consisting of EPDM O-rings on the control stem. Working temperature range 5–100 °C. Maximum working pressure 10 bar.

432 series
Lockshield valve. Straight connections, for iron pipe 3/8", 1/2", 3/4" or 1" F. Connection to radiator 3/8" or 1/2" M with tailpiece supplied with EPDM sealing gasket, 3/4" and 1" M with tailpiece without rubber seal. Brass body. Chrome plated. ABS white RAL 9010 protective cap. Outward seal consisting of EPDM O-rings on the control stem. Working temperature range 5–100 °C. Maximum working pressure 10 bar.

200 series
Thermostatic control head for thermostatic and convertible radiator valves. Built-in sensor with liquid-filled element. Maximum ambient temperature 50 °C. Adjustment scale from ❄ to 5, corresponding to a working temperature range of 7 to 28 °C, with the option of locking and restricting the temperature. Frost protection cut-in 7 °C. TELL certification, Class I.

201 series
Thermostatic control head for thermostatic and convertible radiator valves. Remote sensor with liquid-filled element. Maximum ambient temperature 50 °C. Adjustment scale from ❄ to 5, corresponding to a working temperature range of 7 to 28 °C, with the option of locking and restricting the temperature. Frost protection cut-in 7 °C. TELL certification, Class I.

203 series
Thermostatic control head with contact probe, for temperature restriction of the medium. Adjustment temperature range 20–50 °C (40–90 °C). Maximum temperature of sensor 100 °C. Numbered scale, with the option of locking and restricting the temperature. Capillary length 2 m.

209 series
Tamper-proof and anti-theft cap for thermostatic control head, for public installations.

Code 199000 CNT
Thermostatic control head for convertible radiator valves and thermostatic valves. Built-in sensor with liquid-filled element. Maximum ambient temperature 50 °C. Graduated scale from ❄ to 5, corresponding to a working temperature range of 7 to 28 °C, with the option of locking and restricting the temperature. Frost protection cut-in 7 °C.TELL certification, Class II.

Code 199100
Thermostatic control head for convertible radiator valves and thermostatic valves. Remote sensor with liquid-filled element. Capillary length 2 m. Maximum ambient temperature 50 °C. Graduated scale from ❄ to 5 corresponding to a working temperature range of 7 to 28 °C, with the option of locking and restricting the temperature. Frost protection cut-in 7 °C. TELL certification, Class I.

202 series
Thermostatic control head for convertible radiator valves and thermostatic valves. Built-in sensor with liquid-filled element, with digital LCD ambient temperature indicator. Maximum ambient temperature 50 °C. Graduated scale from ❄ to 5, corresponding to a working temperature range of 7 to 28 °C, with the option of locking and restricting the temperature. Frost protection cut-in 7 °C. Ambient temperature indicator from 16 °C to 26 °C. PATENT.

CALEFFI Hydronic Solutions
Caleffi S.p.A.
S.R. 229 n. 25 · 28010 Fontaneto d'Agogna (NO) · Italy
Tel. +39 0322 8491 · Fax +39 0322 863723
info@caleffi.com · www.caleffi.com