

Radiator and lockshield valves

series 340 - 411 - 415



Function

The following series of manual and lockshield valves are typically used for controlling and regulating the fluid flow in heat emitters of central heating systems.

They are supplied with a special tailpiece with rubber hydraulic seal, permitting quick, safe connection to the radiator without the use of additional sealing materials.

Product range

For copper and plastic piping:

LINEA 3

Series 340 Elbow manual radiator valve	Sizes 3/8", 1/2" radiator x 23 p.1,5 piping
Series 341 Straight manual radiator valve	Sizes 3/8", 1/2" radiator x 23 p.1,5 piping
Series 342 Elbow radiator lockshield valve	Sizes 3/8", 1/2" radiator x 23 p.1,5 piping
Series 343 Straight radiator lockshield valve	Sizes 3/8", 1/2" radiator x 23 p.1,5 piping

For steel piping:

Series 411 Elbow manual radiator valve	Sizes 3/8", 1/2", (3/4" use code 401500)
Series 412 Straight manual radiator valve	Sizes 3/8", 1/2", (3/4" use code 402500)
Series 431 Elbow radiator lockshield valve	Sizes 3/8", 1/2", 3/4" (*)
Series 432 Straight radiator lockshield valve	Sizes 3/8", 1/2", 3/4" (*)

For copper and plastic piping (with tailpiece without rubber seal):

Series 415 Elbow manual radiator valve	Sizes 3/8" x 3/8" and 1/2" radiator x 23 p.1,5 piping
Series 416 Straight manual radiator valve	Sizes 3/8" x 3/8" and 1/2" radiator x 23 p.1,5 piping
Series 435 Elbow radiator lockshield valve	Sizes 3/8" x 3/8" and 1/2" radiator x 23 p.1,5 piping
Series 436 Straight radiator lockshield valve	Sizes 3/8" x 3/8" and 1/2" radiator x 23 p.1,5 piping

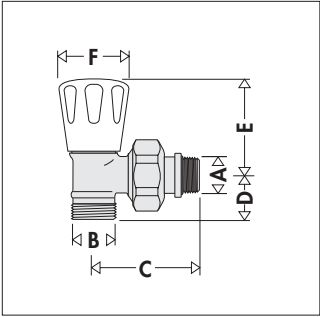
* 3/4" with tailpiece without rubber seal

Technical specification

- Material: - Body: brass UNI EN 12165 CW617N, chrome plated
- Obturator: brass UNI EN 12164 CW614N
- Hydraulic seals: EPDM
- Gland: PTFE
- Control knob and cap: ABS (RAL 9010)

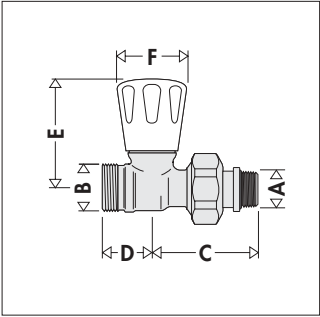
Fluid: water, glycol solutions
 Max percentage of glycol: 30%
 Max working pressure: 10 bar
 Temperature range: 5÷100°C

Dimensions



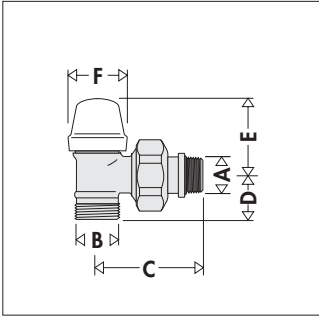
Code	A	B	C
340302	3/8"	23 p.1,5	47,5
340402	1/2"	23 p.1,5	53,5

Code	D	E	F
340302	21,5	48,5	Ø 37,5
340402	21,5	48,5	Ø 37,5



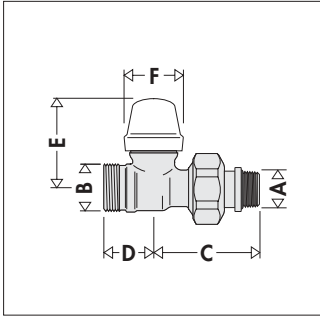
Code	A	B	C
341302	3/8"	23 p.1,5	47,5
341402	1/2"	23 p.1,5	53,5

Code	D	E	F
341302	24	57	Ø 37,5
341402	24	57	Ø 37,5



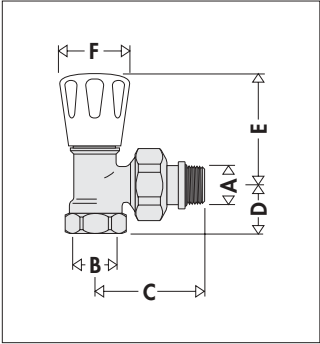
Code	A	B	C
342302	3/8"	23 p.1,5	47,5
342402	1/2"	23 p.1,5	53,5

Code	D	E	F
342302	21,5	39	Ø 28,5
342402	21,5	39	Ø 28,5



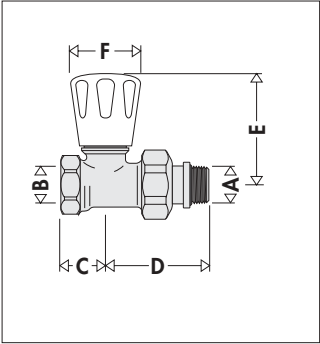
Code	A	B	C
343302	3/8"	23 p.1,5	47,5
343402	1/2"	23 p.1,5	53,5

Code	D	E	F
343302	24	44,5	Ø 28,5
343402	24	44,5	Ø 28,5



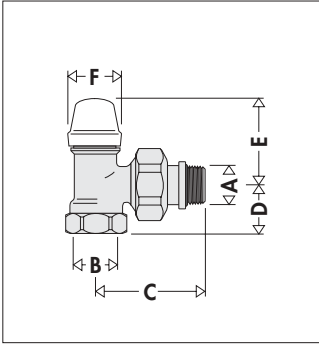
Code	A	B	C
411302	3/8"	3/8"	48
411402	1/2"	1/2"	54

Code	D	E	F
411302	20	48	Ø 37,5
411402	23	48	Ø 37,5



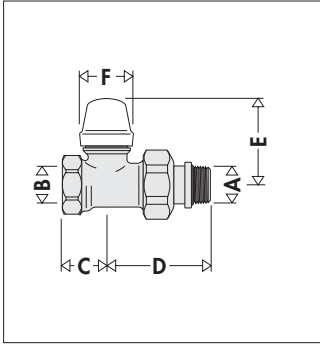
Code	A	B	C
412302	3/8"	3/8"	21
412402	1/2"	1/2"	22

Code	D	E	F
412302	46,5	55	Ø 37,5
412402	52	55	Ø 37,5



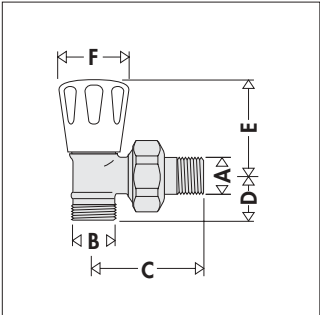
Code	A	B	C
431302	3/8"	3/8"	47,5
431402	1/2"	1/2"	53,5
431500	3/4"	3/4"	62,5

Code	D	E	F
431302	20	38	Ø 28,5
431402	23	38	Ø 28,5
431500	25	47	Ø 28,5



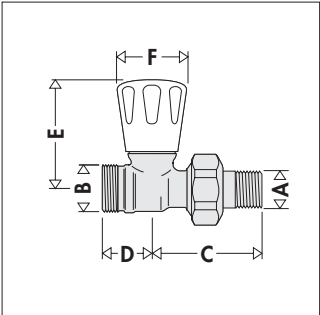
Code	A	B	C
432302	3/8"	3/8"	21
432402	1/2"	1/2"	22
432500	3/4"	3/4"	30

Code	D	E	F
432302	46,5	44,5	Ø 28,5
432402	52	44,5	Ø 28,5
432500	59,5	49,5	Ø 28,5



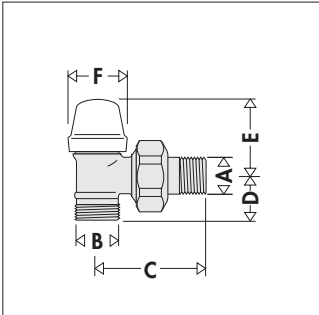
Code	A	B	C
415303	3/8"	3/8"	47
415403	1/2"	23 p.1,5	51

Code	D	E	F
415303	21,5	48	Ø 37,5
415403	21,5	48	Ø 37,5



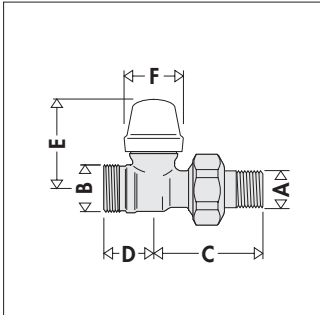
Code	A	B	C
416303	3/8"	3/8"	46,5
416403	1/2"	23 p.1,5	50

Code	D	E	F
416303	23,5	55	Ø 37,5
416403	24	55	Ø 37,5



Code	A	B	C
435303	3/8"	23 p.1,5	47
435403	1/2"	23 p.1,5	51

Code	D	E	F
435303	21,5	38	Ø 28,5
435403	21,5	38	Ø 28,5



Code	A	B	C
436303	3/8"	3/8"	46,5
436403	1/2"	23 p.1,5	50

Code	D	E	F
436303	23,5	44,5	Ø 28,5
436403	24	44,5	Ø 28,5

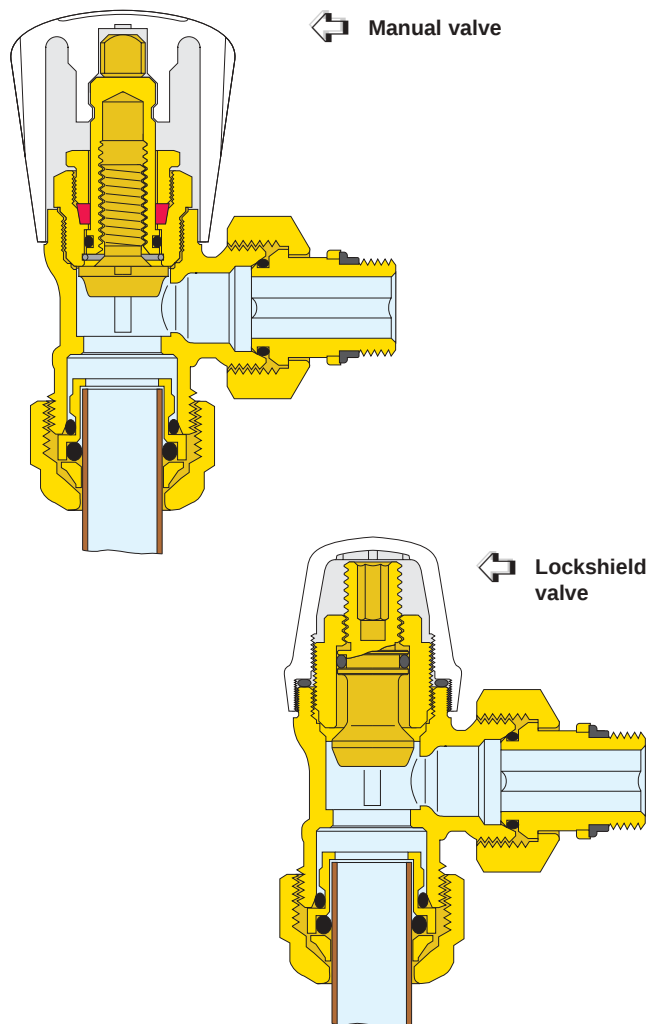
Construction characteristics

Valve

The hydraulic seal on the control spindle is guaranteed by a PTFE gland nut and an EPDM O-Ring.

Control knob

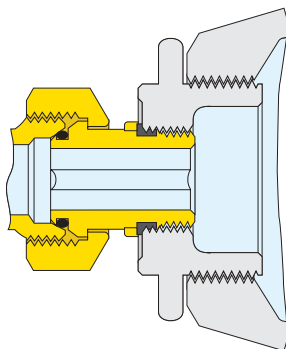
The knob is push-located on the control spindle by means of simple manual pressure, without any fixing screws. Dismantling for any operations on the gland or for replacement is very easy.



Tailpiece with rubber seal

The coupling union to the radiator connection thread has a specially shaped rubber ring.

This system guarantees the hydraulic seal with no need for further sealing materials, such as PTFE tapes etc.



Hydraulic characteristics

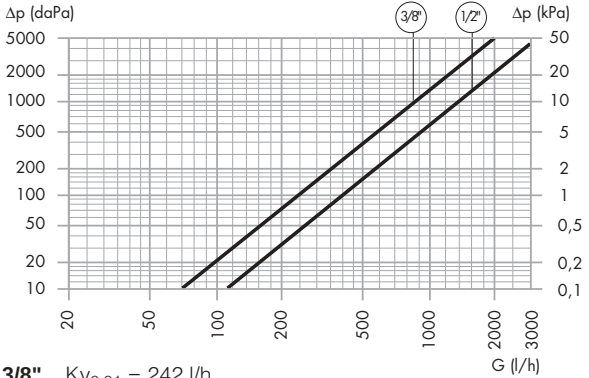
Values of nominal flow and equivalent length

COPPER PIPING							
TYPE	Rad. con.	Pipe con.	Int/ext pipe Ø (mm)	STRAIGHT		ELBOW	
				Kv _{0,01} (l/h)	e.l. (m)	Kv _{0,01} (l/h)	e.l. (m)
Radiator or lockshield valve	3/8"	23 p.1,5	6/8	132	0,2	242	0,1
Radiator or lockshield valve	3/8"	3/8" 23 p.1,5	8/10	132	0,8	242	0,2
Radiator or lockshield valve	3/8"	3/8" 23 p.1,5	10/12	132	2,7	242	0,8
Radiator or lockshield valve	3/8"	23 p.1,5	12/14	132	6,9	242	2,1
Radiator or lockshield valve	3/8"	23 p.1,5	13/15	132	10,6	242	3,1
Radiator or lockshield valve	3/8"	23 p.1,5	14/16	132	15,5	242	4,6
Radiator or lockshield valve	3/8"	23 p.1,5	16/18	132	31,3	242	9,3
Radiator or lockshield valve	1/2"	23 p.1,5	8/10	217	0,3	399	0,1
Radiator or lockshield valve	1/2"	23 p.1,5	10/12	217	1,0	399	0,3
Radiator or lockshield valve	1/2"	23 p.1,5	12/14	217	2,6	399	0,8
Radiator or lockshield valve	1/2"	23 p.1,5	13/15	217	3,9	399	1,2
Radiator or lockshield valve	1/2"	23 p.1,5	14/16	217	5,7	399	1,7
Radiator or lockshield valve	1/2"	23 p.1,5	16/18	217	11,6	399	3,4

STEEL PIPING							
TYPE	Rad. con.	Pipe con.	Int/ext pipe Ø (mm)	STRAIGHT		ELBOW	
				Kv _{0,01} (l/h)	e.l. (m)	Kv _{0,01} (l/h)	e.l. (m)
Radiator or lockshield valve	3/8"	3/8"	12,7/17,2	132	7,5	242	2,2
Radiator or lockshield valve	1/2"	1/2"	16,3/21,3	217	10,4	399	3,1
Lockshield valve	3/4"	3/4"	21,7/26,4	258	33,2	452	11

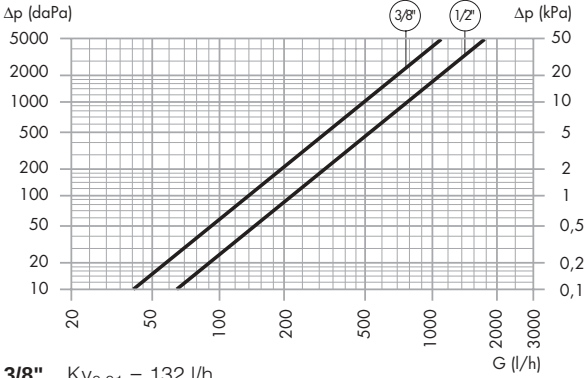
PLASTIC PIPING							
TYPE	Rad. con.	Pipe con.	Int/ext pipe Ø (mm)	STRAIGHT		ELBOW	
				Kv _{0,01} (l/h)	e.l. (m)	Kv _{0,01} (l/h)	e.l. (m)
Radiator or lockshield valve	3/8"	3/8" 23 p.1,5	8/12	132	0,8	242	0,2
Radiator or lockshield valve	3/8"	23 p.1,5	10/15	132	2,7	242	0,8
Radiator or lockshield valve	3/8"	23 p.1,5	12/16	132	6,9	242	2,1
Radiator or lockshield valve	3/8"	23 p.1,5	13/18	132	10,6	242	3,1
Radiator or lockshield valve	3/8"	23 p.1,5	14/18	132	15,5	242	4,6
Radiator or lockshield valve	1/2"	23 p.1,5	8/12	217	0,3	399	0,1
Radiator or lockshield valve	1/2"	23 p.1,5	10/15	217	1,0	399	0,3
Radiator or lockshield valve	1/2"	23 p.1,5	12/16	217	2,6	399	0,8
Radiator or lockshield valve	1/2"	23 p.1,5	13/18	217	3,9	399	1,2
Radiator or lockshield valve	1/2"	23 p.1,5	14/18	217	5,7	399	1,7

Manual regulating valves, elbow connections, series 340, series 411 and series 415



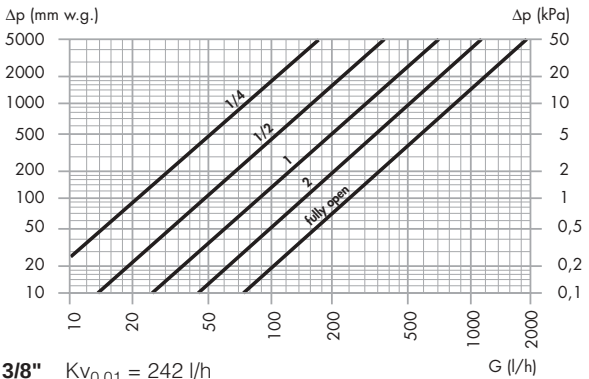
3/8" $K_{V_{0,01}} = 242 \text{ l/h}$
1/2" $K_{V_{0,01}} = 399 \text{ l/h}$

Manual regulating valves, straight connections, series 341, series 412 and series 416



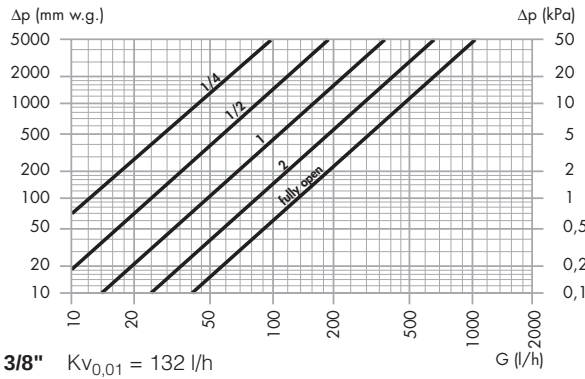
3/8" $K_{V_{0,01}} = 132 \text{ l/h}$
1/2" $K_{V_{0,01}} = 217 \text{ l/h}$

Lockshield valves, 3/8" elbow connections, series 342, series 431 and series 435



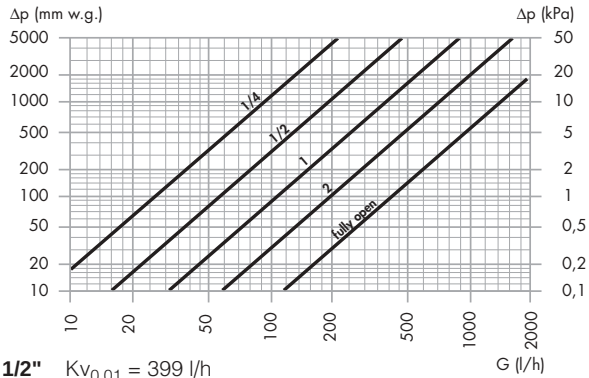
3/8" $K_{V_{0,01}} = 242 \text{ l/h}$

Lockshield valves, 3/8" straight connections, series 343, series 432 and series 436



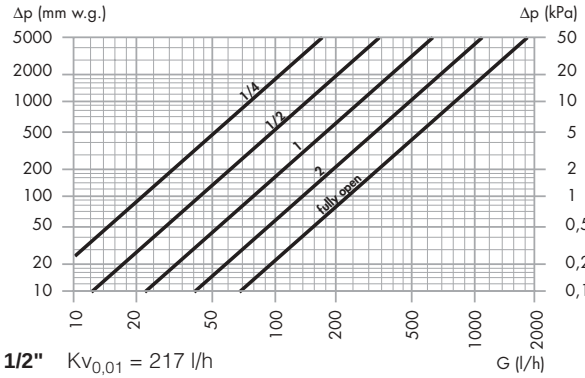
3/8" $K_{V_{0,01}} = 132 \text{ l/h}$

Lockshield valves, 1/2" elbow connections, series 342, series 431 and series 435



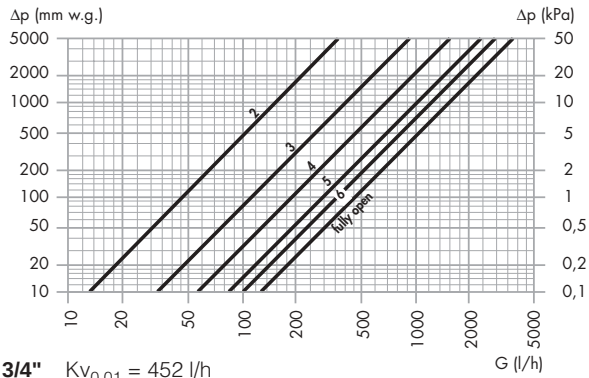
1/2" $K_{V_{0,01}} = 399 \text{ l/h}$

Lockshield valves, 1/2" straight connections, series 343, series 432 and series 436



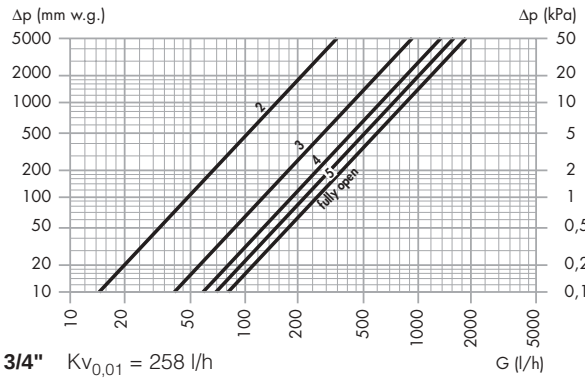
1/2" $K_{V_{0,01}} = 217 \text{ l/h}$

Lockshield valves, 3/4" elbow connections, series 431



3/4" $K_{V_{0,01}} = 452 \text{ l/h}$

Lockshield valves 3/4", straight connections, series 432



3/4" $K_{V_{0,01}} = 258 \text{ l/h}$

Choice of connections

Piping connections

3/8"



4383

Compression connection for copper pipes, with PTFE seal.

Code	Con. Ø
438310 3/8" - Ø 10	12
438312 3/8" - Ø 12	12

Accessories

COLORSET

FOR COLOURED RADIATORS

3680

Coloured lockshield valve caps and valve control knobs. Available in a range of 11 colours.



Available in colours:

purple	RAL 3003	brown	RAL 8017
ivory	RAL 1013	black	RAL 9005
blue	RAL 5015	red	RAL 3000
yellow	RAL 1021	green	RAL 6024
grey	RAL 7035	chrome plated	



Piping connections

23 p.1,5



4370

Compression connection for copper pipes, with O-Ring seal.

Code	Con. Ø
437010 23 p.1,5 - Ø 10	18
437012 23 p.1,5 - Ø 12	18
437014 23 p.1,5 - Ø 14	18
437015 23 p.1,5 - Ø 15	18
437016 23 p.1,5 - Ø 16	18



4380

Compression connection, for copper pipes, with PTFE seal.

Code	Con. Ø
438010 23 p.1,5 - Ø 10	18
438012 23 p.1,5 - Ø 12	18
438014 23 p.1,5 - Ø 14	18
438015 23 p.1,5 - Ø 15	18
438016 23 p.1,5 - Ø 16	18
438018 23 p.1,5 - Ø 18	18



6810 DARCAL
Auto-adaptable diameter connection for single and multilayer plastic pipes.

Code	Ø _{Int.}	Ø _{Ext.}	Con. Ø
681000 23 p.1,5	7,5- 8	12-14	18
681002 23 p.1,5	9 - 9,5	14-16	18
681001 23 p.1,5	9,5-10	12-14	18
681006 23 p.1,5	9,5-10	14-16	18
681015 23 p.1,5	10,5-11	14-16	18
681017 23 p.1,5	10,5-11	16-18	18
681024 23 p.1,5	11,5-12	14-16	18
681026 23 p.1,5	11,5-12	16-18	18
681035 23 p.1,5	12,5-13	16-18	18
681044 23 p.1,5	13,5-14	16-18	18



382

Connection with adjustable nut Ø 23 p.1,5. Chrome plated.

Code	
382000	23 p.1,5



3870

Hex. nut spanner 25 and 26 mm.

Code	
387000	



3871

Hex. nut spanner 26 and 30 mm. For DARCAL connections 23 p.1,5 and 3/4".

Code	
387100	



3871

Multi-purpose tool. Can be used for unions from 3/8" to 1".

Code	
387127	

SPECIFICATION SUMMARIES

Series 340

Manual radiator valve. Elbow connections for copper and single and multilayer plastic pipe 23 p.1,5 for piping from 10 to 18 mm. Connection to radiator 3/8" or 1/2" M with tailpiece supplied with seal in EPDM. Brass body. Chrome plated. Control knob white RAL 9010 in ABS. Double seal consisting of EPDM O-Ring on control spindle and gland in PTFE. Maximum working temperature 100°C. Maximum working pressure 10 bar.

Series 341

Manual radiator valve. Straight connections for copper and single and multilayer plastic pipe 23 p.1,5 for piping from 10 to 18 mm. Connection to radiator 3/8" or 1/2" M with tailpiece supplied with seal in EPDM. Brass body. Chrome plated. Control knob white RAL 9010 in ABS. Double seal consisting of EPDM O-Ring on control spindle and gland in PTFE. Maximum working temperature 100°C. Maximum working pressure 10 bar.

Series 342

Lockshield valve. Elbow connections for copper and single and multilayer plastic pipe 23 p.1,5 for piping from 10 to 18 mm. Radiator connection 3/8" or 1/2" M with tailpiece provided with EPDM seal. Brass body. Chrome plated. Cap white RAL 9010 in ABS. Outward seal consisting of EPDM O-Ring on control spindle. Maximum working temperature 100°C. Maximum working pressure 10 bar.

Series 343

Lockshield valve. Straight connections for copper and single and multilayer plastic pipe 23 p.1,5 for piping from 10 to 18 mm. Radiator connection 3/8" or 1/2" M with tailpiece provided with EPDM seal. Brass body. Chrome plated. Cap white RAL 9010 in ABS. Outward seal consisting of EPDM O-Ring on control spindle. Maximum working temperature 100°C. Maximum working pressure 10 bar.

Series 411

Manual radiator valve. Elbow connections for steel pipe, 3/8" or 1/2". Connection to radiator 3/8" or 1/2" M with tailpiece supplied with seal in EPDM. Brass body. Chrome plated. Control knob white RAL 9010 in ABS. Double seal consisting of EPDM O-Ring on control spindle and gland in PTFE. Maximum working temperature 100°C. Maximum working pressure 10 bar.

Series 412

Manual radiator valve. Straight connections for steel pipe, 3/8" or 1/2". Connection to radiator 3/8" or 1/2" M with tailpiece supplied with seal in EPDM. Brass body. Chrome plated. Control knob white RAL 9010 in ABS. Double seal consisting of EPDM O-Ring on control spindle and gland in PTFE. Maximum working temperature 100°C. Maximum working pressure 10 bar.

Series 415

Manual radiator valve. Elbow connections for copper and single and multilayer plastic pipe, 3/8" or 23 p.1,5. Connection to radiator 3/8" or 1/2" M with tailpiece. Brass body. Chrome plated. Control knob white RAL 9010 in ABS. Double seal consisting of EPDM O-Ring on control spindle and gland in PTFE. Maximum working temperature 100°C. Maximum working pressure 10 bar.

Series 416

Manual radiator valve. Straight connections for copper and single and multilayer plastic pipe, 3/8" or 23 p.1,5. Connection to radiator 3/8" or 1/2" M with tailpiece. Brass body. Chrome plated. Control knob white RAL 9010 in ABS. Double seal consisting of EPDM O-Ring on control spindle and gland in PTFE. Maximum working temperature 100°C. Maximum working pressure 10 bar.

Series 431

Lockshield valve. Elbow connections for steel pipes 3/8", 1/2" or 3/4". Radiator connection 3/8" or 1/2" M with tailpiece provided with EPDM seal, 3/4" with tailpiece without seal. Brass body. Chrome plated. Cap white RAL 9010 in ABS. Outward seal consisting of EPDM O-Ring on control spindle. Maximum working temperature 100°C. Maximum working pressure 10 bar.

Series 432

Lockshield valve. Straight connections for steel pipes 3/8", 1/2" or 3/4". Radiator connection 3/8" or 1/2" M with tailpiece provided with EPDM seal, 3/4" with tailpiece without seal. Brass body. Chrome plated. Cap white RAL 9010 in ABS. Outward seal consisting of EPDM O-Ring on control spindle. Maximum working temperature 100°C. Maximum working pressure 10 bar.

Series 435

Lockshield valve. Elbow connections for copper and single and multilayer plastic pipe 3/8" or 23 p.1,5. Radiator connection 3/8" or 1/2" M with tailpiece. Brass body. Chrome plated. Cap white RAL 9010 in ABS. Outward seal consisting of EPDM O-Ring on control spindle. Maximum working temperature 100°C. Maximum working pressure 10 bar.

Series 436

Lockshield valve. Straight connections for copper and single and multilayer plastic pipe 3/8" or 23 p.1,5. Radiator connection 3/8" or 1/2" M with tailpiece. Brass body. Chrome plated. Cap white RAL 9010 in ABS. Outward seal consisting of EPDM O-Ring on control spindle. Maximum working temperature 100°C. Maximum working pressure 10 bar.

We reserve the right to change our products and their relevant technical data, contained in this publication, at any time and without prior notice.

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