



giacotech

GENERAL CATALOGUE

**MICROMETRIC, THERMOSTATIC VALVES
THERMOSTATIC VALVES
MANUAL VALVES
LOCKSHIELDS**

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**MICROMETRIC, THERMOSTATIC VALVES**

THERMOSTATIC VALVES

MANUAL VALVES

LOCKSHIELDS

GIACOTECH**► Use**

Constantly focused on the market and on the growing needs in terms of user-friendliness and reliability of the system, Giacomini proposes the Giacotech valves and lockshields range. This family represents the evolution and implementation of the well-known and successful Programma 80 that, with its functional innovative characteristics (the thermostatic element and the pipe union with self-sealing element in plastic material) imposed itself on the market from 1979 on. Today Giacotech comes out as legitimate successor, with a new version, enhanced both in the range and in the technical aspects.

Unlike the well-known and successful Programma 80, the most recent Giacotech series consists of a wider range including micrometric thermostatic valves as well as the basic thermostatic valves, manual valves and lockshields, all are both in the versions with iron connection and with adapter connection. This way the installer can easily choose within the Giacotech series with the safety of finding and using something as close as possible to one's needs.

Programma 80, introduced on the Italian market in 1979, was successful thanks to its functional innovative characteristics, such as the thermostatic element (without the help of any accessories) and the presence of a pipe union with a self-sealing element in plastic material. During the years the work of the installer became easier and this is one of the basic aspects for Giacomini. Within the Giacotech series the main aspects are:

- Introduction of a self-sealing element in elastomeric material, the natural evolution of the self-sealing in plastic material featured by Programma 80
- Unification of the adapter for the mostly used sizes
- Restyling of operation hand wheels of micrometric thermostatic valves
- Introduction of building yard protections to prevent accidental damage to operation handwheels during the installation.

▸ Micrometric thermostatic valves

Micrometric adjustment.

The series of micrometric thermostatic valves Giacotech features, in addition to a more comfortable operation handle and a series of parameters already widely described in the introduction, and the possibility of making the micrometric adjustment through which it is possible to separate the opening of the valve operating in manual. Removing the upper part of the handwheel access to the graduation scale is easy.



The adjustment can be made shifting the metal pin in the position that best suits one's needs, according to the specific diagrams reported in the [Hydraulic Versions and Characteristics](#).

**MICROMETRIC, THERMOSTATIC VALVES**

THERMOSTATIC VALVES

MANUAL VALVES

LOCKSHIELDS

GIACOTECH**► Technical Data**

- Fluids: hot water
- Max. operating temperature: 110°C
- Max operating pressure for manual applications: PN16
- Max operating pressure in association with thermostatic heads: 1 MPa (10 bar)
- Max differential pressure:
 - 0,14 MPa (1,4 bar), 3/8" - 1/2" - 3/4" (except for the F series)
 - 0,07 MPa (0,7 bar), 3/4" (F series)
 - 0,04 MPa (0,4 bar), 1"

► Materials

- Bodies, caps and pipe unions: brass UNI EN 12165 CW617N
- Operation handwheels: ABS
- Self-sealing: EP

► Hydraulic versions and characteristics

In the following tables the values of Kv are reported according to the micrometric adjustment set positioning the metal pin (as described in the previous paragraph). T=2K refers to the situation of valve with thermostatic head installed.

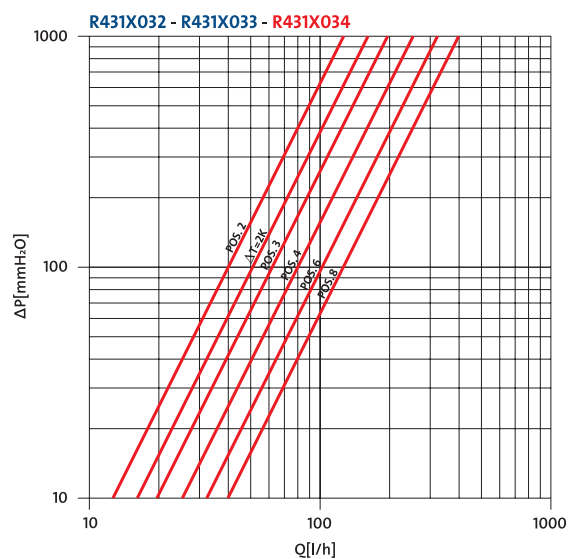


R431TG

Chrome-plated thermostatic angle micrometric valve, with adapter connection and pipe union with self-sealing*

*Pipe unions with self-sealing in measures 3/8" and 1/2"

CODE	MEASURE	POSITION					$\Delta T=2K$
		2	3	4	6	8	
R431X032	3/8" x 16	0,40	0,62	0,80	1,02	1,26	0,51
R431X033	1/2" x 16	0,40	0,62	0,80	1,02	1,26	0,51
R431X034	1/2" x 18	0,40	0,62	0,80	1,02	1,26	0,51



**MICROMETRIC, THERMOSTATIC VALVES**

THERMOSTATIC VALVES

MANUAL VALVES

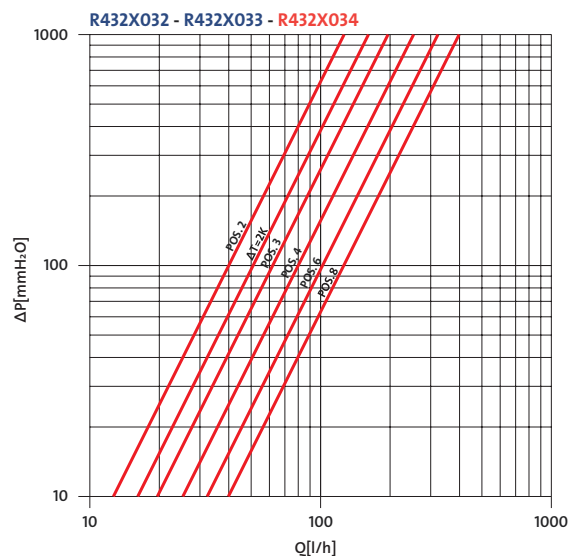
LOCKSHIELDS

GIACOTECH**R432TG**

Chrome-plated thermostatic straight micrometric valve, with adapter connection and pipe union with self-sealing*

*Pipe unions with self-sealing in measures 3/8" and 1/2"

CODE	MEASURE	POSITION					$\Delta T=2K$
		2	3	4	6	8	
R432X032	3/8" x 16	0,40	0,62	0,80	1,02	1,26	0,51
R432X033	1/2" x 16	0,40	0,62	0,80	1,02	1,26	0,51
R432X034	1/2" x 18	0,40	0,62	0,80	1,02	1,26	0,51



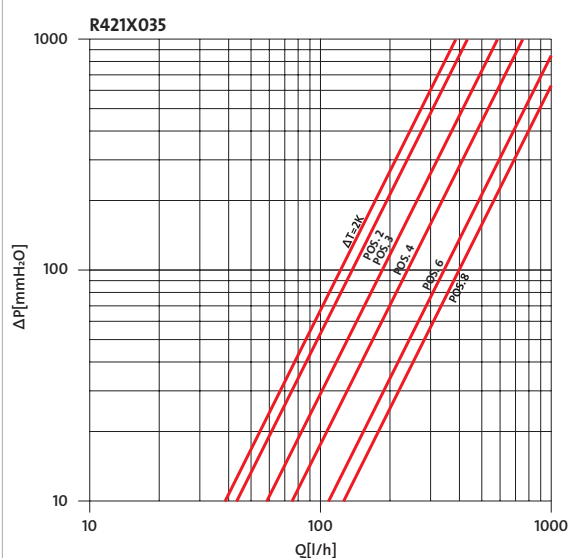
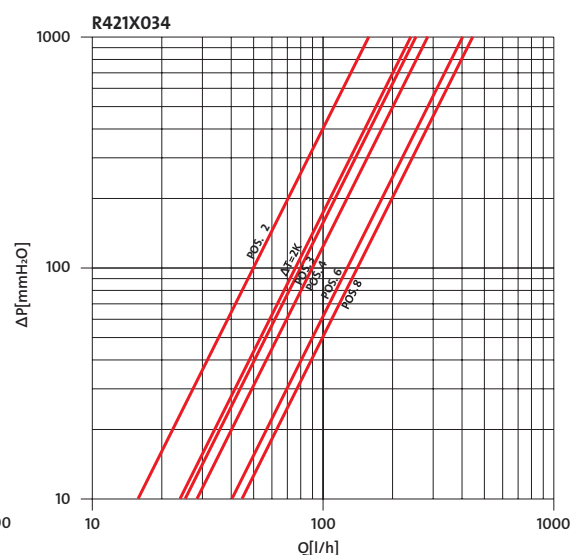
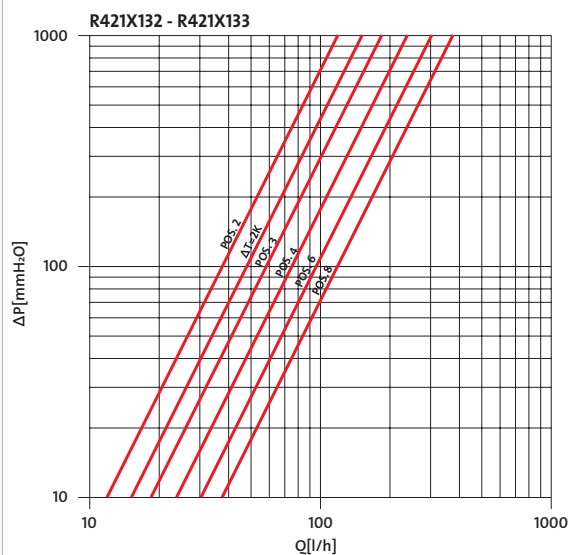


R421TG

Chrome-plated thermostatic angle micrometric valve, with iron pipe connection and pipe union with self-sealing

*Pipe unions with self-sealing in measures 3/8" and 1/2"

CEN	CODE	MEASURE	POSITION					$\Delta T=2K$
			2	3	4	6	8	
	R421X132	3/8" x 3/8"	0,40	0,58	0,78	1,00	1,26	0,51
	R421X133	1/2" x 1/2"	0,42	0,62	0,80	1,02	1,26	0,51
	R421X034	3/4" x 3/4"	0,50	0,80	0,90	1,25	1,41	0,76
	R421X035	1" x 1"	1,37	1,85	2,38	3,36	3,98	1,22



**MICROMETRIC, THERMOSTATIC VALVES**

THERMOSTATIC VALVES

MANUAL VALVES

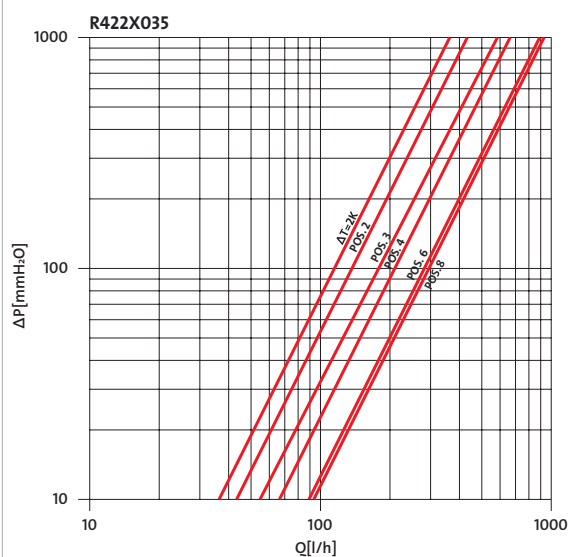
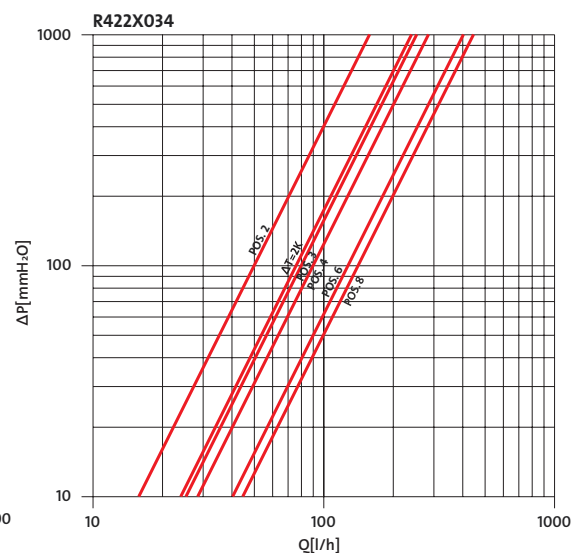
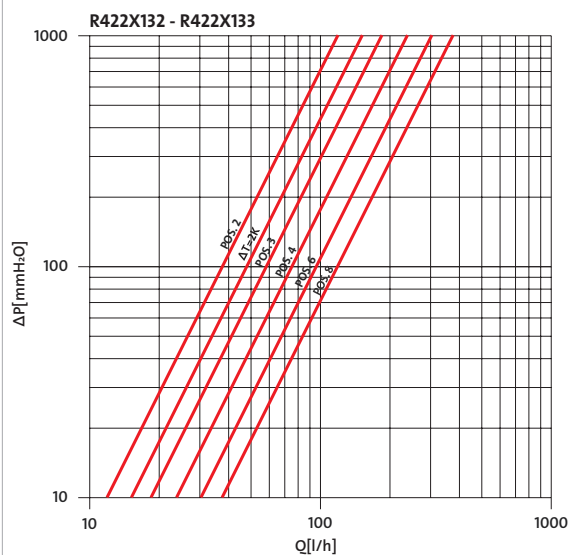
LOCKSHIELDS

GIACOTECH**R422TG**

Chrome-plated thermostatic straight micrometric valve, with iron pipe connection and pipe union with self-sealing*

*Pipe unions with self-sealing in measures 3/8" and 1/2"

CEN	CODE	MEASURE	POSITION					$\Delta T=2K$
			2	3	4	6	8	
	R422X132	3/8" x 3/8"	0,40	0,58	0,78	1,00	1,26	0,51
	R422X133	1/2" x 1/2"	0,42	0,62	0,80	1,02	1,26	0,51
	R422X034	3/4" x 3/4"	0,50	0,80	0,90	1,25	1,41	0,76
	R422X035	1" x 1"	1,37	1,73	2,10	2,82	2,95	1,15





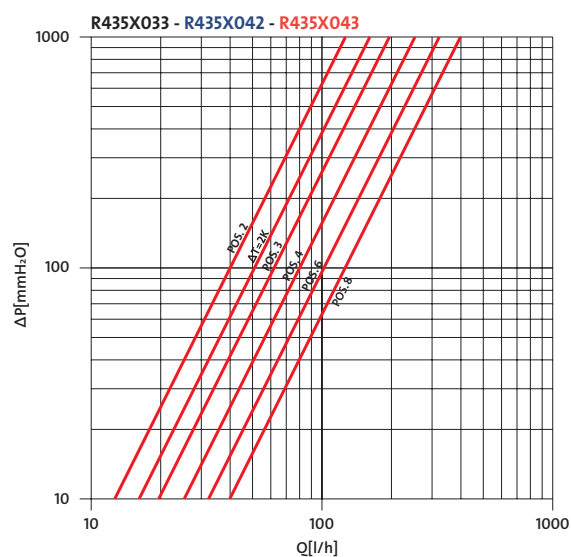
R435TG

Chrome-plated thermostatic angle micrometric valve, with pipe union with self-sealing*;

Available both with adapter and iron pipe connection

*Pipe unions with self-sealing in measures 3/8" and 1/2"

CODE	MEASURE	POSITION					$\Delta T=2K$
		2	3	4	6	8	
R435X033	1/2" x 1/2"	0,40	0,62	0,80	1,02	1,26	0,51
R435X042	1/2" x 16	0,40	0,62	0,80	1,02	1,26	0,51
R435X043	1/2" x 18	0,40	0,62	0,80	1,02	1,26	0,51



**MICROMETRIC, THERMOSTATIC VALVES**

THERMOSTATIC VALVES

MANUAL VALVES

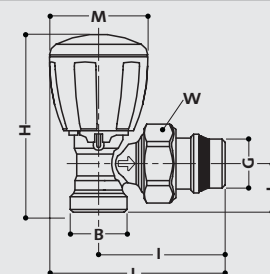
LOCKSHIELDS

GIACOTECH**► Volumes and dimensions [mm]**

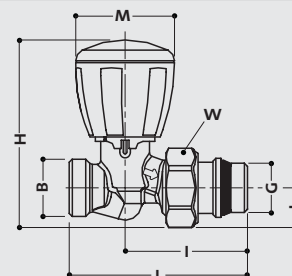
Hmax maximum volume with thermostatic head installed

R431TG

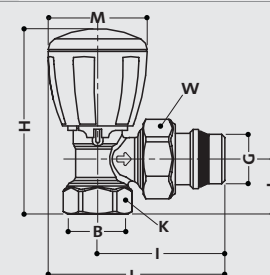
CODE	MEASURE	H	I	J	L	M	W	H _{MAX}
R431X032	3/8" x 16	79	60	21	74	42	30	117
R431X033	1/2" x 16	79	54	21	74	42	30	117
R431X034	1/2" x 18	79	54	21	74	42	30	117

**R432TG**

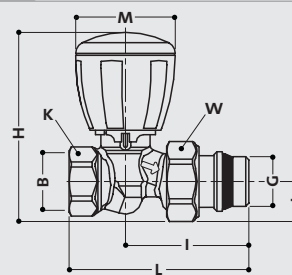
CODE	MEASURE	H	I	J	L	M	W	H _{MAX}
R432X032	3/8" x 16	83	51	17	74	42	30	121
R432X033	1/2" x 16	83	51	17	74	42	30	121
R432X034	1/2" x 18	83	51	17	74	42	30	121

**R421TG**

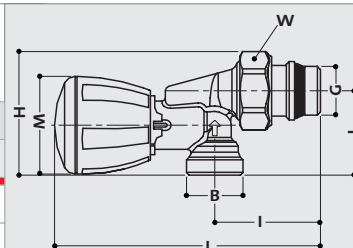
CEN	CODE	MEASURE	H	I	J	K	L	M	W	H _{MAX}
	R421X132	3/8" x 3/8"	74	51	20	22	72	42	27	112
	R421X133	1/2" x 1/2"	78	53	23	26	74	42	30	116
	R421X034	3/4" x 3/4"	83	60	25	32	81	42	38	122
	R421X035	1" x 1"	100	72	31	39	93	42	46	139

**R422TG**

CEN	CODE	MEASURE	H	I	J	K	L	M	W	H _{MAX}
	R422X132	3/8" x 3/8"	81	51	15	22	71	42	27	119
	R422X133	1/2" x 1/2"	83	51	17	26	82	42	30	121
	R422X034	3/4" x 3/4"	87	55	21	32	81	42	38	126
	R422X035	1" x 1"	99	64	26	39	105	42	46	137

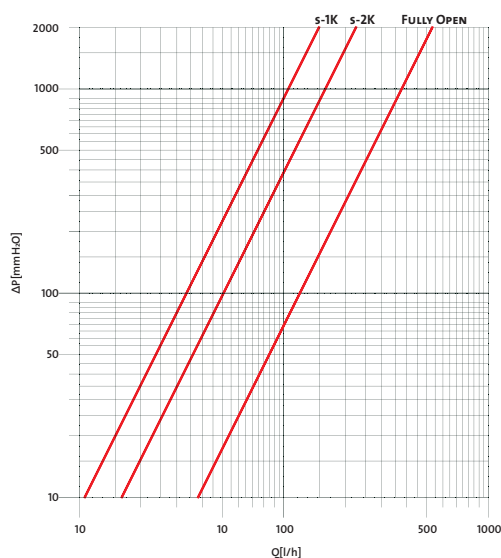
**R435TG**

CODE	MEASURE	H	I	J	K	L	M	W	H _{MAX}
R435X033	1/2" x 1/2"	53	45	36	25	113	42	30	155
R435X042	1/2" x 16	53	45	36	-	113	42	30	155
R435X043	1/2" x 18	53	45	36	-	113	42	30	155



► Informazioni aggiuntive per le valvole certificate CEN - EN215

CODE	MEASURE	THERMOSTATIC HEAD	nominal supply QMNH in association with the heads	Authority of the shutter
R421X132 R422X132	3/8"	R452	130 Kg/h	0,894
R421X133 R422X133	1/2"	R452	130 Kg/h	0,894
R421X132 R422X132	3/8"	R456	150 Kg/h	0,858
R421X133 R422X133	1/2"	R456	150 Kg/h	0,858
R421X132 R422X132	3/8"	R470	150 Kg/h	0,858
R421X133 R422X133	1/2"	R470	150 Kg/h	0,858



3/8" - 1/2"	Kv
s - 1K	0,332
s - 2K	0,506
Fully Open	1,26

Declared hysteresis value: 0,8K

Min calibration in association with thermostatic heads R452, R456, R470: 8°C in position*

Max operating pressure in association with thermostatic heads: 10 bar

On demand data relative to response time (Z) are available, temperature influence (W), influence of differential pressure (D), spindle movement.



MICROMETRIC, THERMOSTATIC VALVES

THERMOSTATIC VALVES

MANUAL VALVES

LOCKSHIELDS

GIACOTECH

► Thermostatic valves

The series of Giacotech thermostatic valves with protection handle is especially recommended for the assemblies with thermostatic heads or electrothermal actuators installation for the control of ambient temperature, aimed at maintaining the comfort conditions in addition to optimising consumptions. The building yard protection anyway allows separating the supply of the valve. Turning the red cap counter clockwise to open it and the opposite to close it. Red cap's rotations of 36° correspond to temperature variations equal to 1°C.

The protection with the red cap tightly closed in addition allows largely exceeding differential pressures of 10 bar with the system off. Anyway we recommend carrying out pressure tightness tests only after connecting the heating bodies in order to avoid, in case of damage to the mechanism, causing floods.

► Technical data

- Fluids: hot water
- Max. operating temperature: 110°C
- Max. operating pressure for manual applications: PN16
- Max. operating pressure in association with thermostatic heads: 1 MPa (10 bar)
- Pressione differenziale massima:
 - 0,14 MPa (1,4 bar), 3/8" - 1/2" - 3/4" (except for F series)
 - 0,07 MPa (0,7 bar), 3/4" (F series)
 - 0,04 MPa (0,4 bar), 1"

► Materials

- Bodies, caps and pipe unions: brass UNI EN 12165 CW617N
- Operation handwheels: PP-H
- Self-sealing: EP

► Hydraulic versions and characteristics

The following tables report the values of Kv with thermostatic head installed. Usually at the stage of design reference is made to the situation $\Delta T=2K$. T.A.= all open

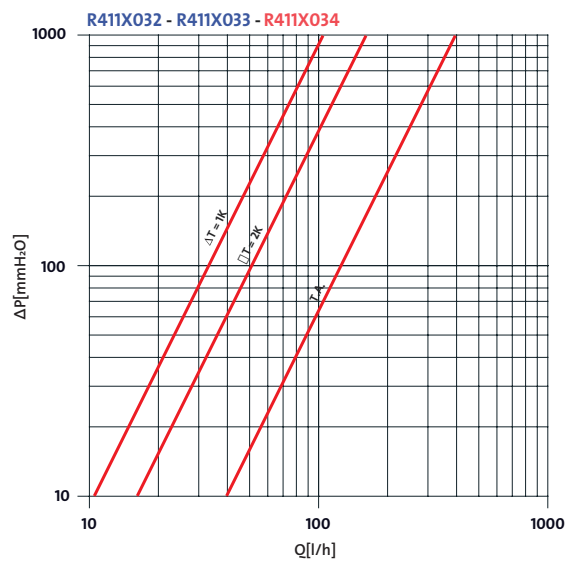


R411TG

Chrome-plated thermostatic angle valve, with protection for building yards. Complete with adapter connection and pipe union with self-sealing*

*Self-sealing pipe unions in measures 3/8" and 1/2"

CODE	MEASURE	$\Delta T=1K$	$\Delta T=2K$	T.A.
R411X032	3/8" x 16	0,33	0,51	1,26
R411X033	1/2" x 16	0,33	0,51	1,26
R411X034	1/2" x 18	0,33	0,51	1,26





MICROMETRIC, THERMOSTATIC VALVES

THERMOSTATIC VALVES

MANUAL VALVES

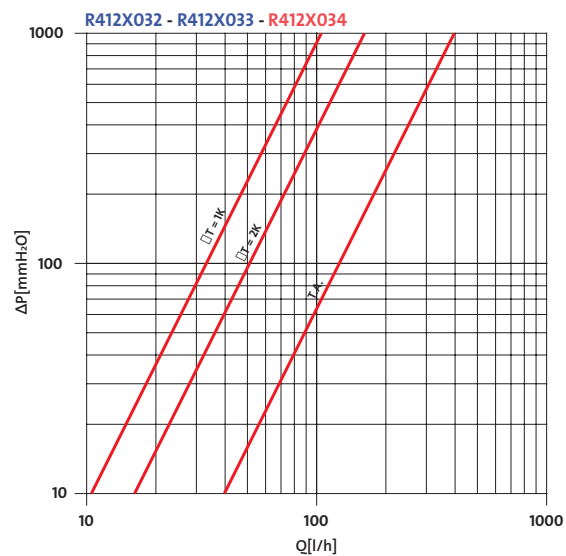
LOCKSHIELDS

GIACOTECH**R412TG**

Chrome-plated thermostatic straight valve, with protection for building yards. Complete with adapter connection and pipe union with self-sealing

*Self-sealing pipe unions in measures 3/8" and 1/2"

CODE	MEASURE	$\Delta T=1K$	$\Delta T=2K$	T.A.
R412X032	3/8" x 16	0,33	0,51	1,26
R412X033	1/2" x 16	0,33	0,51	1,26
R412X034	1/2" x 18	0,33	0,51	1,26



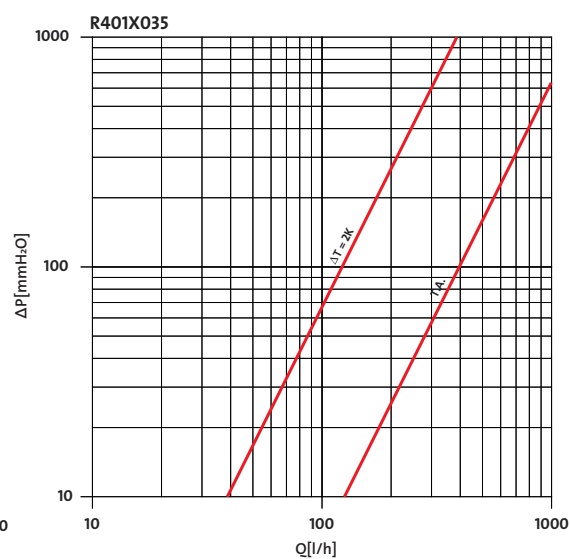
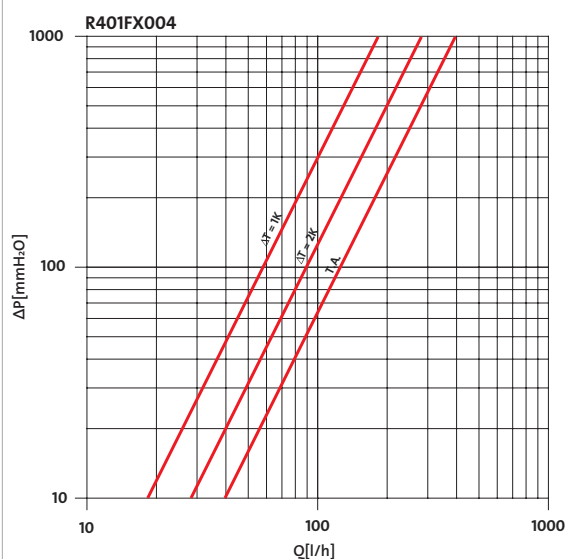
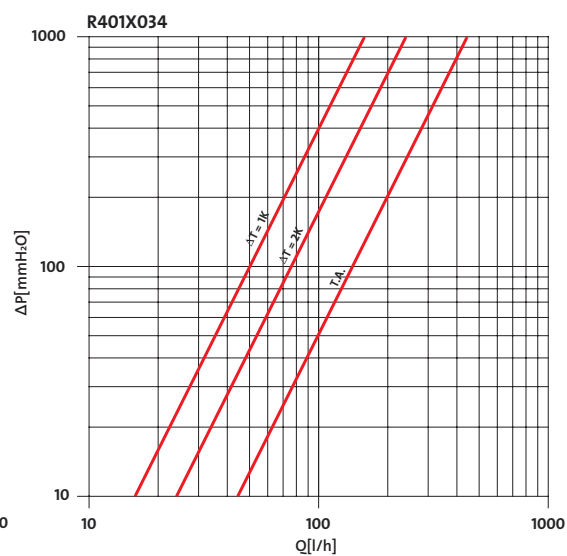
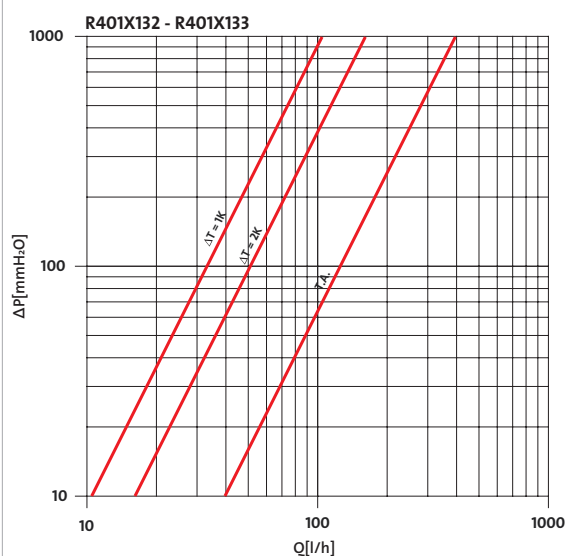


R401TG

Chrome-plated thermostatic angle valve, with protection for building yards. Complete with iron pipe connection and pipe union with self-sealing*

*Self-sealing pipe unions in measures 3/8" and 1/2"

CEN	CODE	MEASURE	$\Delta T=1K$	$\Delta T=2K$	T.A.
	R401X132	3/8" x 3/8"	0,33	0,51	1,26
	R401X133	1/2" x 1/2"	0,33	0,51	1,26
	R401FX004	3/4" x 3/4"	0,60	0,92	3,54
	R401X034	3/4" x 3/4"	0,50	0,76	1,41
	R401X035	1" x 1"	-	1,22	3,98





MICROMETRIC, THERMOSTATIC VALVES

THERMOSTATIC VALVES

MANUAL VALVES

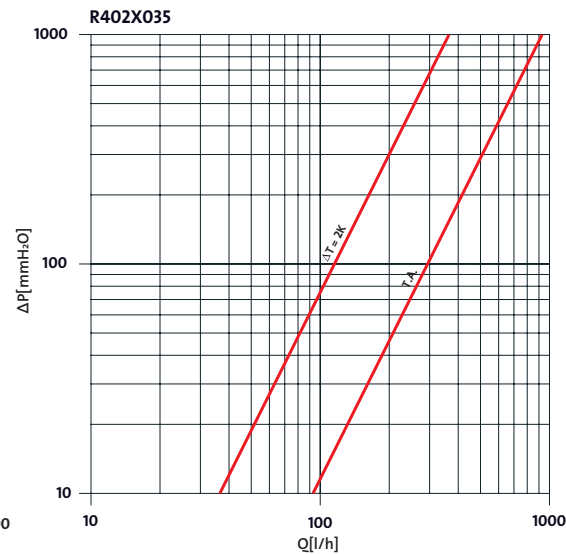
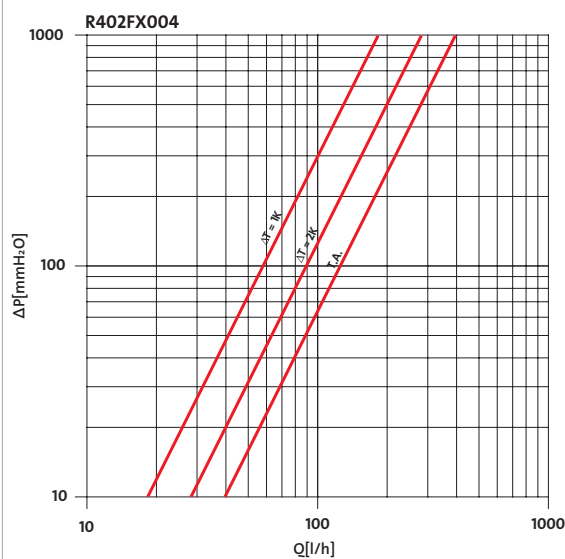
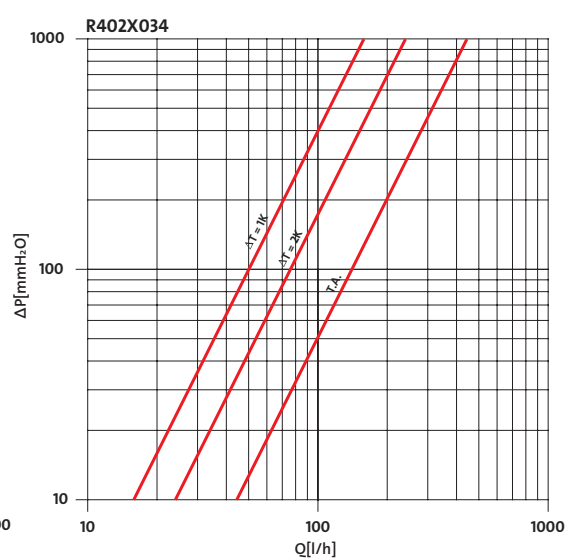
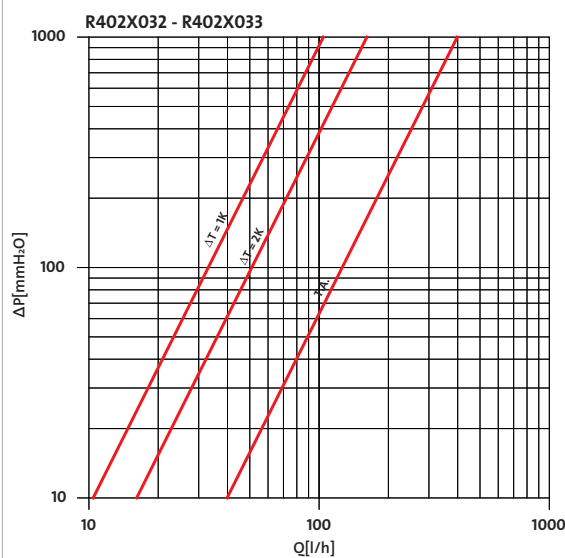
LOCKSHIELDS

GIACOTECH**R402TG**

Chrome-plated thermostatic straight valve, with protection for building yards. Complete with iron pipe connection and pipe union with self-sealing

*Self-sealing pipe unions in measures 3/8" and 1/2"

CEN	CODE	MEASURE	$\Delta T=1K$	$\Delta T=2K$	T.A.
	R402X132	3/8" x 3/8"	0,33	0,51	1,26
	R402X133	1/2" x 1/2"	0,33	0,51	1,26
	R402FX004	3/4" x 3/4"	0,60	0,92	2,67
	R402X034	3/4" x 3/4"	0,50	0,76	1,41
	R402X035	1" x 1"	-	1,15	2,95



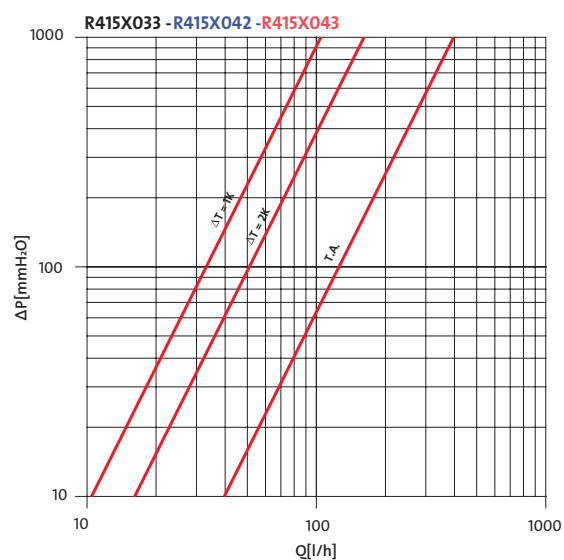
R415TG



Chrome-plated thermostatic angle valve, with protection for building yards. Complete with adapter connection and pipe union with self-sealing
Available both with adapter and iron pipe connection

*Self-sealing pipe unions in measures 3/8" and 1/2"

CEN	CODE	MEASURE	$\Delta T=2K$	$\Delta T=2K$	T.A.
	R415X033	1/2" x 1/2"	0,33	0,51	1,26
	R415X042	1/2" x 16	0,33	0,51	1,26
	R415X043	1/2" x 18	0,33	0,51	1,26





MICROMETRIC, THERMOSTATIC VALVES

THERMOSTATIC VALVES

MANUAL VALVES

LOCKSHIELDS

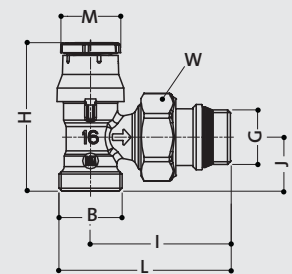
GIACOTECH

► Volumes and dimensions [mm]

Hmax max volume with thermostatic head installed

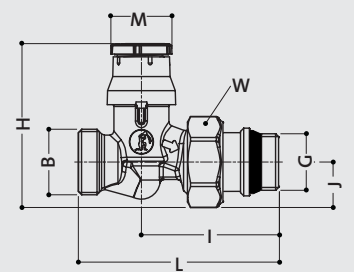
R411TG

CODE	MEASURE	H	I	J	L	M	W	H _{MAX}
R411X032	3/8" x 16	60	53	21	66	23	30	117
R411X033	1/2" x 16	60	53	21	66	23	30	117
R411X034	1/2" x 18	60	53	21	66	23	30	117



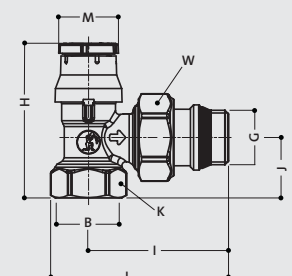
R412TG

CODE	MEASURE	H	I	J	L	M	W	H _{MAX}
R412X032	3/8" x 16	64	51	17	74	23	30	121
R412X033	1/2" x 16	64	51	17	75	23	30	121
R412X034	1/2" x 18	64	51	17	76	23	30	121



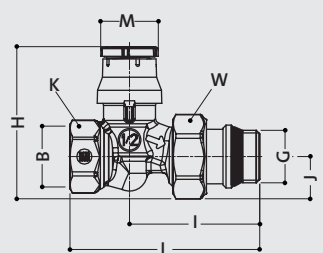
R401TG

CEN	CODE	MEASURE	H	I	J	K	L	M	W	H _{MAX}
	R401X132	3/8" x 3/8"	55	51	20	22	64	23	27	112
	R401X133	1/2" x 1/2"	59	53	23	26	68	23	30	116
	R401FX004	3/4" x 3/4"	70	65	22	32	98	23	38	127
	R401X034	3/4" x 3/4"	65	60	25	32	78	23	38	122
	R401X035	1" x 1"	82	72	31	39	94	23	46	139



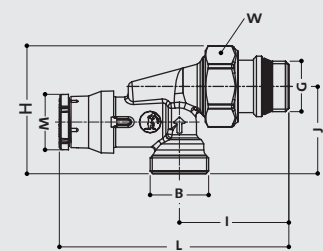
R402TG

CEN	CODE	MEASURE	H	I	J	K	L	M	W	H _{MAX}
	R402X132	3/8" x 3/8"	58	54	15	22	76	23	27	115
	R402X133	1/2" x 1/2"	60	55	17	26	82	23	30	117
	R402FX004	3/4" x 3/4"	68	62	26	32	80	23	38	125
	R402X034	3/4" x 3/4"	83	60	25	32	81	42	38	122
	R402X035	1" x 1"	100	72	31	39	93	42	46	139



R415TG

CODE	MEASURE	H	I	J	K	L	M	W	H _{MAX}
R415X033	1/2" x 1/2"	53	45	36	25	98	23	30	155
R415X042	1/2" x 16	53	45	36	-	98	23	30	155
R415X043	1/2" x 18	53	45	36	-	98	23	30	155



► Additional information for CEN - EN215 certified valves

CODE	MEASURE	THERMOSTATIC HEAD	Nominal supply qmNH in association with the heads 130 Kg/h	Authority of the shutter
R401X132 R402X132	3/8 "	R452	130 Kg/h	0,894
R401X133 R402X133	1/2 "	R452	130 Kg/h	0,894
R401FX004	3/4 "	R452	240 Kg/h	0,954
R402FX004	3/4 "	R452	240 Kg/h	0,919
R401X132 R402X132	3/8 "	R456	150 Kg/h	0,858
R401X133 R402X133	1/2 "	R456	150 Kg/h	0,858
R401FX004	3/4 "	R456	250 Kg/h	0,950
R402FX004	3/4 "	R456	250 Kg/h	0,912
R401X132 R402X132	3/8 "	R470	150 Kg/h	0,858
R401X133 R402X133	1/2 "	R470	150 Kg/h	0,858
R401FX004	3/4 "	R470	250 Kg/h	0,950
R402FX004	3/4 "	R470	250 Kg/h	0,912

R415X033	1/2 "	R452	140 Kg/h	0,877
R415X033	1/2 "	R456	180 Kg/h	0,796
R415X033	1/2 "	R470	180 Kg/h	0,796

Declared hysteresis value: 0,8K

Min calibration with thermostatic heads R452, R456, R470: 8°C in position*

Max operating pressure in association with thermostatic heads: 10 bar

On demand data relative to response time (Z) are available, temperature influence (W), influence of differential pressure (D), spindle movement.



MICROMETRIC, THERMOSTATIC VALVES

THERMOSTATIC VALVES

MANUAL VALVES

LOCKSHIELDS

GIACOTECH

► Thermostatic element

The series of Giacotech thermostatic valves and micrometric thermostatic valves can be easily equipped with thermostatic heads of thermoelectric actuators in order to allow, quite simply, the automation of ambient temperature control thus guaranteeing comfort and significant energy saving. So thermostatic heads with wax (R452) or liquid sensor (R470, R456, R462 with remote sensor, R463 with remote adjustment sensor) can be used or thermoelectric actuators normally open (R478/R478M) or normally closed (R473/R473M) directly controlled by ordinary ambient thermostats.



► Anti-blocking-system screw-down valve

The series of Giacotech micrometric and thermostatic micrometric valves features a system called anti-blocking-system. Inside the operation mechanism there is an operation rod in stainless steel in a single piece, obtained with cold moulding and successive roll-forming, strongly reduces the adhesion capability of lime deposits and consequently the possibility of screw down blocking.



STAINLESS STEEL SHAFT

NUT

BODY MADE IN BRASS UNI EN 12164 CW617N

STAINLESS STEEL SPRING

EP SEAL

▸ Manual valves

The widespread habit of installing manual valves led Giacomini to introduce within the Gia series also this kind of valves. The Giacotech manual valves are easy to operate, and in addition the new handle is more comfortable and is equipped with a specific building yard protection.



▸ Technical data

- Fluids: hot water
- Max operating temperature: 110°C
- Max operating temperature for manual applications: PN16

▸ Materials

- Bodies, caps, pipe unions: UNI EN 12165 CW617N brass
- Operation hand wheels: ABS
- Self-sealing: EP



MICROMETRIC, THERMOSTATIC VALVES

THERMOSTATIC VALVES

MANUAL VALVES

LOCKSHIELDS

GIACOTECH

► Hydraulic versions and characteristics

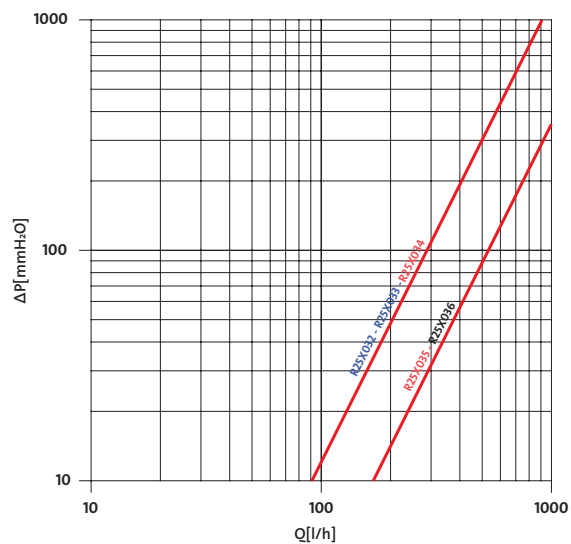
The following tables show the Kv values referred to situations of all open valve.

**R25TG**

Chrome-plated, single-adjustment angle valve with adapter connection and pipe union with self-sealing*

*Self-sealing pipe unions in measures 3/8" and 1/2"

CODE	MEASURE	Kv
R25X032	3/8" x 16	2,88
R25X033	1/2" x 16	2,88
R25X034	1/2" x 18	2,88
R25X035	3/4" x 18	5,34
R25X036	3/4" x 22	5,34



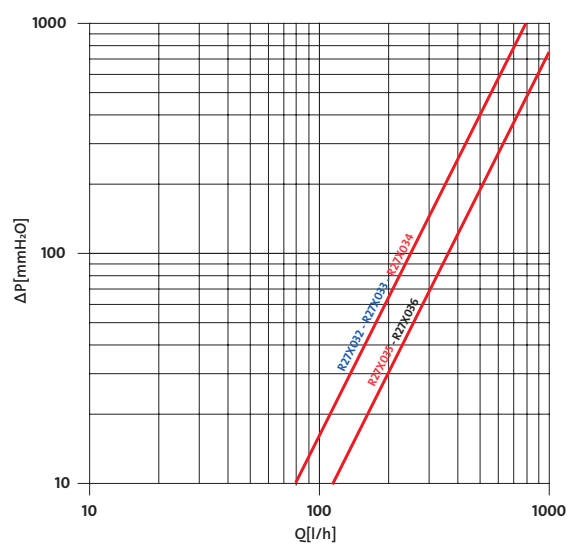


R27TG

Chrome-plated, single-adjustment straight valve with adapter connection and pipe union with self-sealing*

*Self-sealing pipe unions in measures 3/8" and 1/2"

CODE	MEASURE	Kv
R27X032	3/8" x 16	2,50
R27X033	1/2" x 16	2,50
R27X034	1/2" x 18	2,50
R27X035	3/4" x 18	3,65
R27X036	3/4" x 22	3,65





MICROMETRIC, THERMOSTATIC VALVES

THERMOSTATIC VALVES

MANUAL VALVES

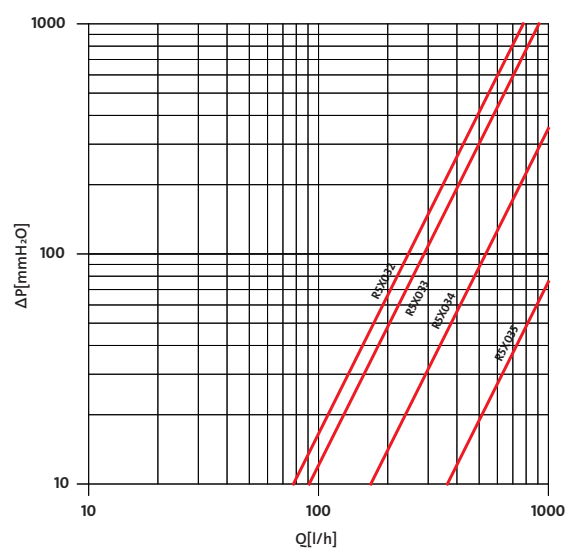
LOCKSHIELDS

GIACOTECH**R5TG**

Chrome-plated angle valve with simple adjustment, complete with iron pipe connection and pipe union with self-sealing*

*Self-sealing pipe unions in measures 3/8" and 1/2"

CODE	MEASURE	Kv
R5X032	3/8" x 3/8"	2,46
R5X033	1/2" x 1/2"	2,88
R5X034	3/4" x 3/4"	5,34
R5X035	1" x 1"	11,50
R5X036	1" 1/4 x 1" 1/4	-



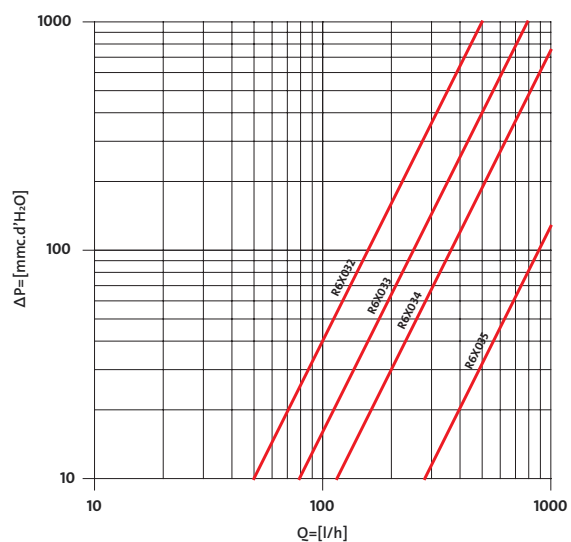


R6TG

Chrome-plated, straight valve with simple-adjustment, iron pipe connection and with self-sealing*

*Self-sealing pipe unions in measures 3/8" and 1/2"

CODE	MEASURE	Kv
R6X032	3/8" x 3/8"	1,58
R6X033	1/2" x 1/2"	2,50
R6X034	3/4" x 3/4"	3,65
R6X035	1" x 1"	8,45
R6X036	1" 1/4 x 1" 1/4	-



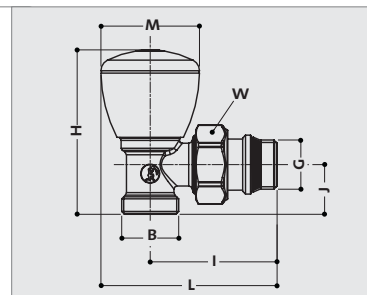


MICROMETRIC, THERMOSTATIC VALVES
THERMOSTATIC VALVES
MANUAL VALVES
LOCKSHIELDS

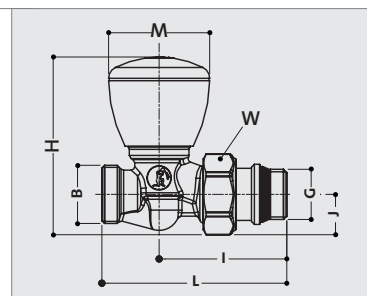
GIACOTECH

► Volumes and dimensions [mm]

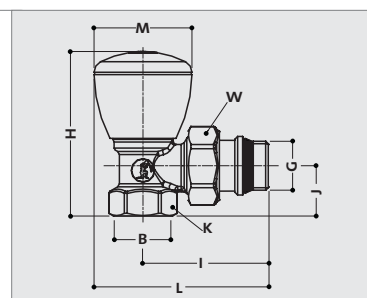
R25TG							
CODE	MEASURE	H	I	J	L	M	W
R25X032	3/8" x 16	70	54	21	74	42	30
R25X033	1/2" x 16	70	54	21	74	42	30
R25X034	1/2" x 18	73	55	24	75	42	30
R25X035	3/4" x 18	80	60	24	84	48	38
R25X036	3/4" x 22	86	60	31	84	48	38



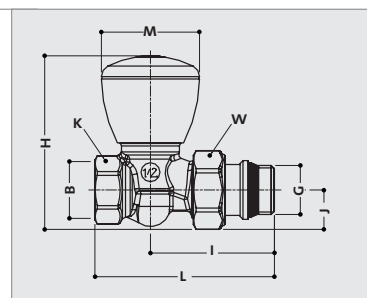
R27TG							
CODE	MEASURE	H	I	J	L	M	W
R27X032	3/8" x 16	73	52	17	75	42	30
R27X033	1/2" x 16	73	52	17	76	42	30
R27X034	1/2" x 18	73	52	17	77	42	30
R27X035	3/4" x 18	87	55	21	81	48	30
R27X036	3/4" x 22	87	55	21	91	48	30



R5TG								
CODE	MEASURE	H	I	J	K	L	M	W
R5X032	3/8" x 3/8"	65	50	19	22	71	42	27
R5X033	1/2" x 1/2"	70	53	21	26	74	42	30
R5X034	3/4" x 3/4"	79	60	23	32	84	48	38
R5X035	1" x 1"	87	68	30	39	92	48	46
R5X036	1" 1/4 x 1" 1/4	102	81	33	49	110	59	53



R6TG								
CODE	MEASURE	H	I	J	K	L	M	W
R6X032	3/8" x 3/8"	69	51	15	22	72	42	27
R6X033	1/2" x 1/2"	73	52	17	26	76	42	30
R6X034	3/4" x 3/4"	86	55	21	32	81	48	38
R6X035	1" x 1"	92	69	26	39	106	48	46
R6X036	1" 1/4 x 1" 1/4	97	84	30	49	135	59	53



▸ Lockshields

System adjustment.

In order to make available for the operator a complete installation system, the Giacotech series also includes lockshields, essential elements for proper system balancing.



This operation, to make according to design characteristics of the system and of hydraulic characteristics of the product at issue, is crucial to guarantee the proper operation of the system. Removing the upper cap you can reach easily the adjustment rod that should be operated with the help of a specific hexagonal wrench (R73). Starting from the position of all closed the shutter is opened according to what the system design provides for.

▸ Technical data

- Fluids: hot water
- Max. operating temperature: 110°C
- Max. operating pressure for manual applications: PN16

▸ Materials

- Bodies, caps and pipe unions: UNI EN 12165 CW617N brass
- Self-sealing: EP



MICROMETRIC, THERMOSTATIC VALVES
THERMOSTATIC VALVES
MANUAL VALVES
LOCKSHIELDS

GIACOTECH

► Versions and hydraulic characteristics

The following tables show the values of Kv according to the n° of opening turns of the lockshield starting from the position of complete closing.

T.A.= (tutto aperto) all open

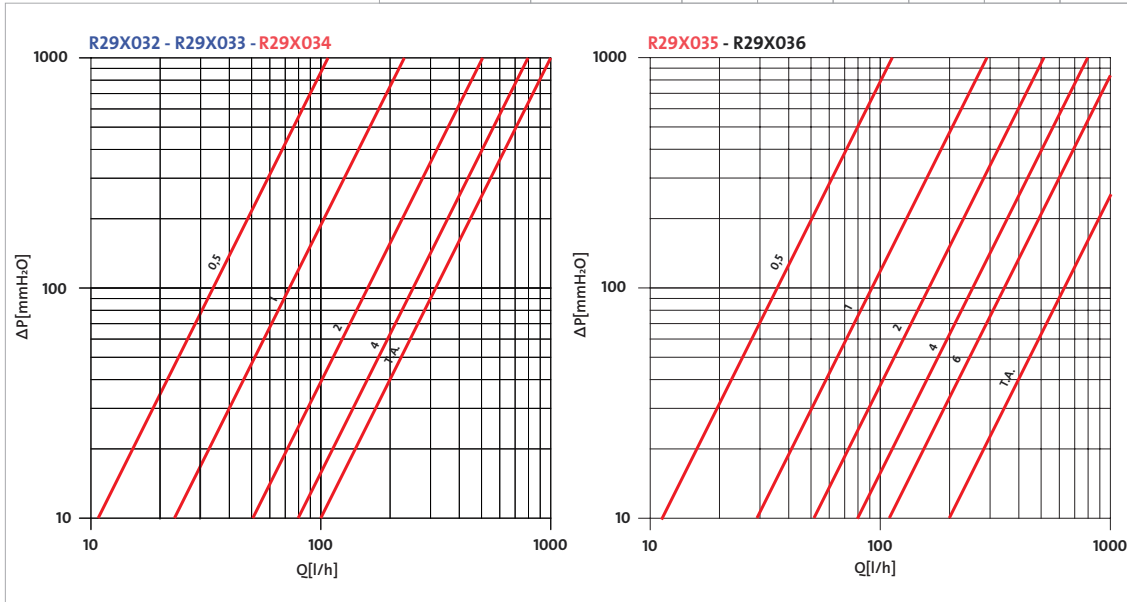
R29TG



Chrome-plated, angle lockshield with adapter connection and pipe union with self-sealing*

*Self-sealing pipe unions in measures 3/8" and 1/2"

CODE	MEASURE	NUMERO GIRI D'APERTURA					T.A.
		0,5	1	2	4	6	
R29X032	3/8" x 16	0,34	0,73	1,60	2,52	-	3,16
R29X033	1/2" x 16	0,34	0,73	1,60	2,52	-	3,16
R29X034	1/2" x 18	0,34	0,73	1,60	2,52	-	3,16
R29X035	3/4" x 18	0,35	0,89	1,60	2,52	3,46	6,32
R29X036	3/4" x 22	0,35	0,89	1,60	2,52	2,95	6,32



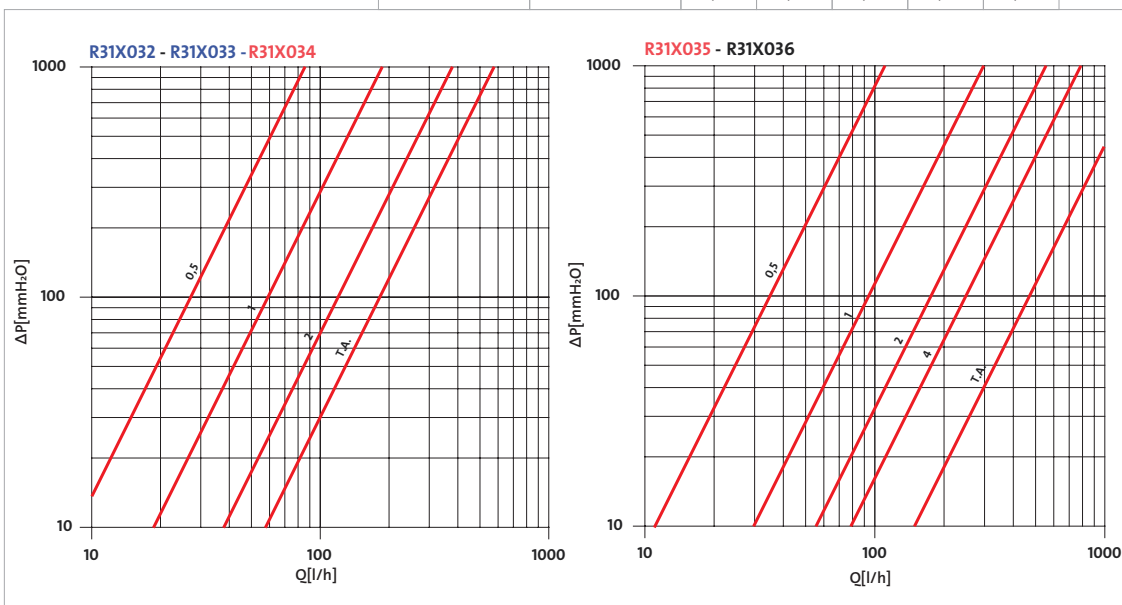
R31TG



Chrome-plated, angle lockshield with adapter connection and pipe union with self-sealing*

*Self-sealing pipe unions in measures 3/8" and 1/2"

CODE	MEASURE	NUMERO GIRI D'APERTURA				T.A.
		0,5	1	2	4	
R31X032	3/8" x 16	0,27	0,59	1,20	-	1,83
R31X033	1/2" x 16	0,27	0,59	1,20	-	1,83
R31X034	1/2" x 18	0,27	0,59	1,20	-	1,83
R31X035	3/4" x 18	0,35	0,94	1,76	2,50	4,71
R31X036	3/4" x 22	0,35	0,94	1,76	2,50	4,71





MICROMETRIC, THERMOSTATIC VALVES
THERMOSTATIC VALVES
MANUAL VALVES
LOCKSHIELDS

GIACOTECH

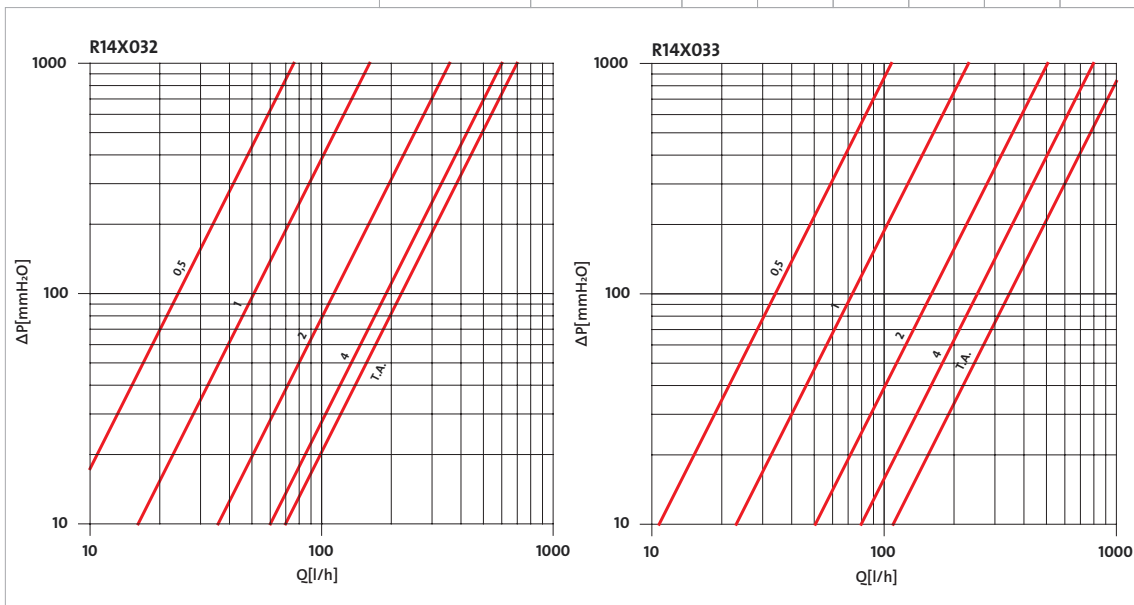
R14TG



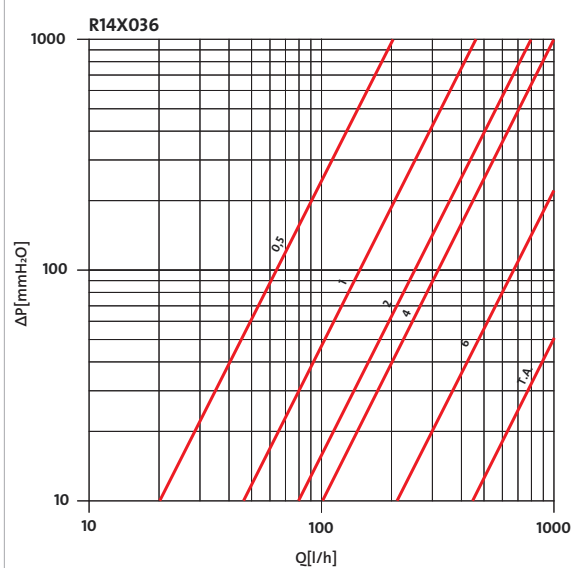
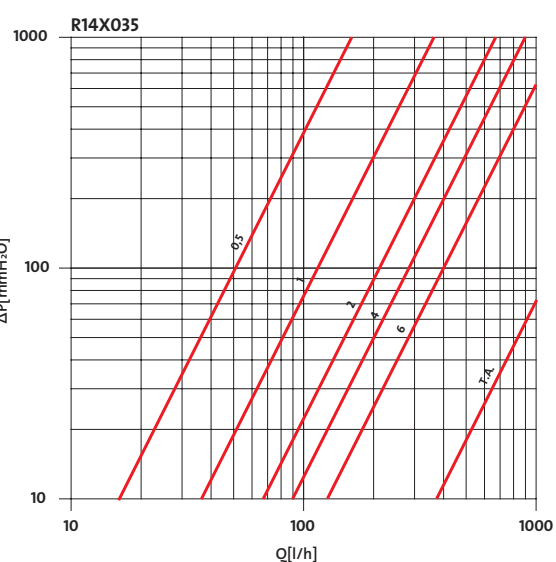
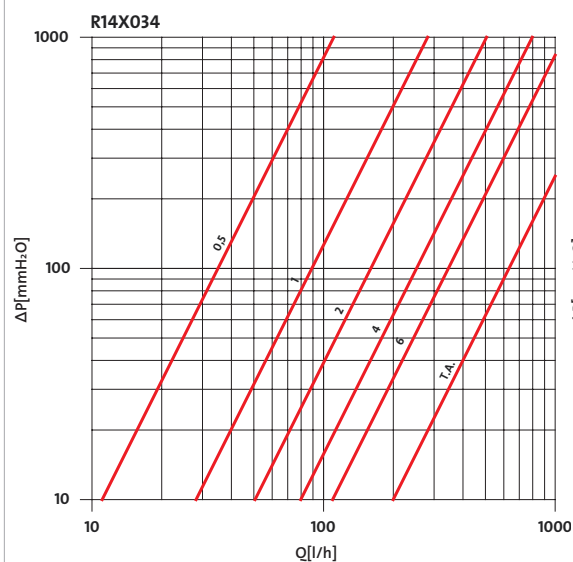
Chrome-plated angle lockshield with iron pipe connection and pipe union with self-sealing*

*Self-sealing pipe unions in measures 3/8" and 1/2"

CODE	SIZE	NUMERO GIRI D'APERTURA					
		0,5	1	2	4	6	T.A.
R14X032	3/8" x 3/8"	0,24	0,51	1,13	1,90	-	2,21
R14X033	1/2" x 1/2"	0,34	0,73	1,60	2,52	-	3,16
R14X034	3/4" x 3/4"	0,35	0,89	1,60	2,52	3,46	6,32
R14X035	1" x 1"	0,51	1,15	2,12	2,84	4,00	11,80
R14X036	1" 1/4 x 1" 1/4	0,64	1,46	2,52	3,20	6,70	14,10



R14TG





MICROMETRIC, THERMOSTATIC VALVES
THERMOSTATIC VALVES
MANUAL VALVES
LOCKSHIELDS

GIACOTECH

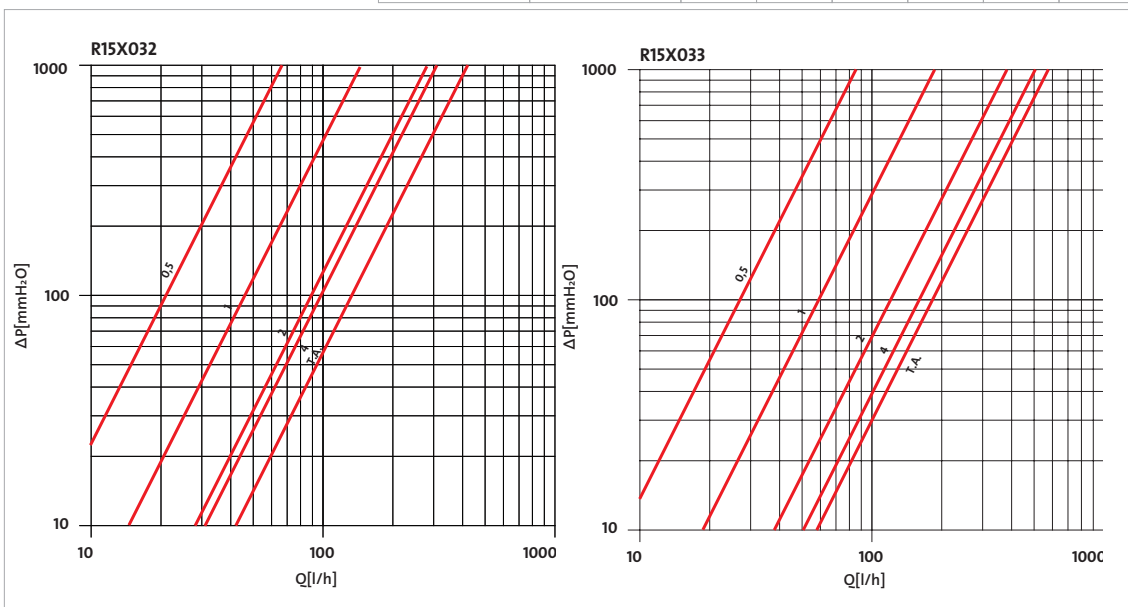
R15TG



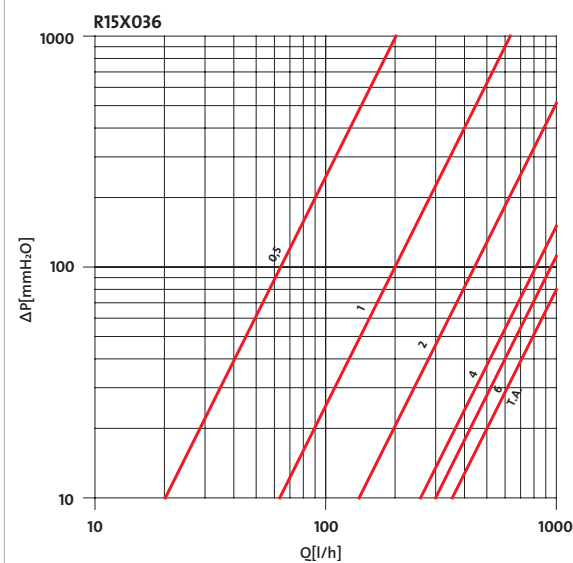
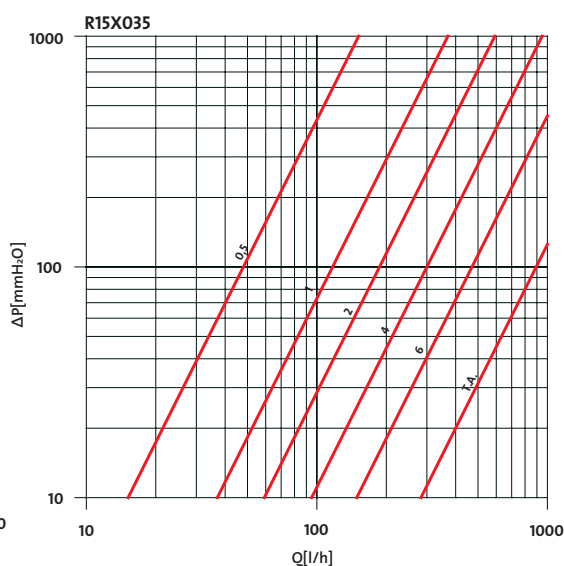
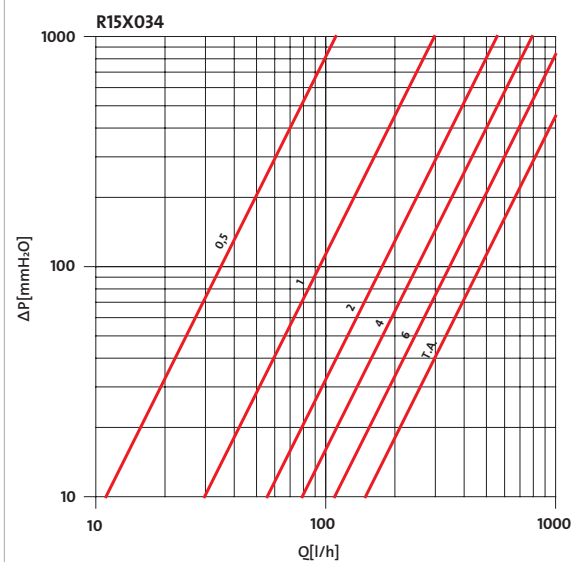
Chrome-plated straight lockshield with iron pipe connection and pipe union with self-sealing*

*Self-sealing pipe unions in measures 3/8" e 1/2"

CODE	SIZE	NUMERO GIRI D'APERTURA					T.A.
		0,5	1	2	4	6	
R15X032	3/8"	0,21	0,46	0,89	0,98	-	1,33
R15X033	1/2"	0,27	0,59	1,20	1,60	-	1,83
R15X034	3/4"	0,35	0,94	1,76	2,50	3,46	4,71
R15X035	1"	0,48	1,17	1,87	3,00	4,71	8,94
R15X036	1" 1/4	0,70	2,00	4,42	8,16	9,48	11,20



R15TG





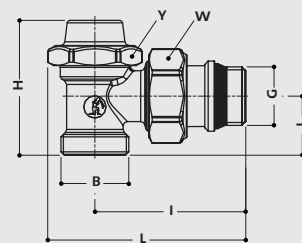
MICROMETRIC, THERMOSTATIC VALVES
THERMOSTATIC VALVES
MANUAL VALVES
LOCKSHIELDS

GIACOTECH

► Volumes and dimensions [mm]

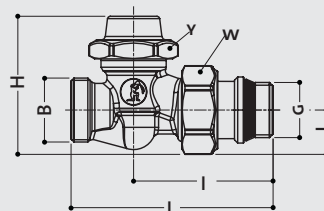
R29TG

CODE	MEASURE	H	I	J	L	W	Y
R29X032	3/8" x 16	48	53	21	70	30	30
R29X033	1/2" x 16	48	53	21	70	30	30
R29X034	1/2" x 18	51	54	24	71	30	30
R29X035	3/4" x 18	54	60	24	79	38	35
R29X036	3/4" x 22	61	60	31	79	38	35



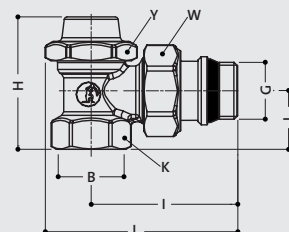
R31TG

CODE	MEASURE	H	I	J	L	W	Y
R31X032	3/8" x 16	52	52	17	75	30	30
R31X033	1/2" x 16	52	52	17	75	30	30
R31X034	1/2" x 18	52	52	17	77	30	30
R31X035	3/4" x 18	62	54	21	81	38	35
R31X036	3/4" x 22	62	54	21	91	38	35



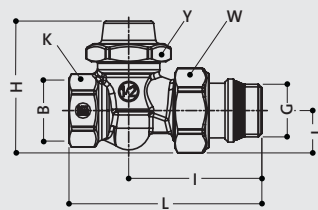
R14TG

CODE	MEASURE	H	I	J	K	L	W	Y
R14X032	3/8" x 3/8"	44	50	19	22	65	27	27
R14X033	1/2" x 1/2"	48	53	21	26	70	30	30
R14X034	3/4" x 3/4"	54	60	23	32	79	38	35
R14X035	1" x 1"	72	68	30	39	90	46	40
R14X035	1" 1/4 x 1" 1/4	80	80	34	49	108	53	46



R15TG

CODE	MEASURE	H	I	J	K	L	W	Y
R15X032	3/8" x 3/8"	48	51	15	22	71	27	27
R15X033	1/2" x 1/2"	52	52	17	26	76	30	30
R15X034	3/4" x 3/4"	62	55	21	32	81	38	35
R15X035	1" x 1"	78	69	26	39	106	46	40
R15X035	1" 1/4 x 1" 1/4	86	78	30	49	119	53	46



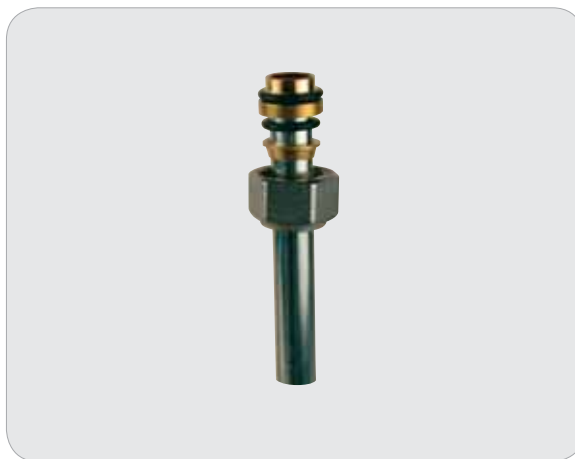
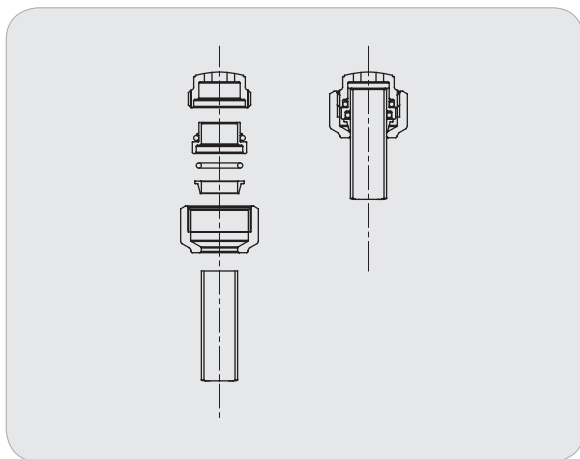
► Connection to the system

The extensive Giacotech series range allows installing systems regardless of the kind of pipes used for the distribution of the vector fluid. It envisages most traditional versions with iron connection and female threaded connections ISO228 as well as adapter connections that allow connecting, through a proper adapter, both copper pipes (or malleable steel) and synthetic material such as Giacotherm or Polybutylene and multilayer like R999 as well.

Adapters for copper pipes

The valves can be connected to the whole range of copper or malleable steel pipes, in current dimensions, using the specific R178 adapters. It is always wise to lightly lubricate with silicone grease O-rings before executing these kinds of assembly.

ADAPTER R178						
VALVE	AVAILABLE SIZES					
3/8"x 16 o 1/2"x 16	-	16 x 10	16 x 12	16 x 14	16 x 15	16 x 16
1/2"x 18	18 x 10	18 x 12	18 x 14	18 x 15	18 x 16	18 x 18
3/4"x 22	22 x 16	22 x 18	22 x 22	-	-	-





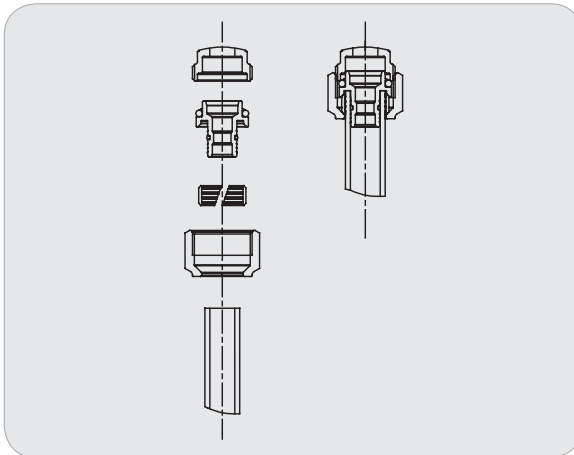
MICROMETRIC, THERMOSTATIC VALVES
THERMOSTATIC VALVES
MANUAL VALVES
LOCKSHIELDS

GIACOTECH

Adapters for plastic pipe

The connection of Giacotherm or Polybutylene synthetic pipes is made with the R179 adapters to install on the valves. Always lightly lubricate with silicone grease the O-rings before making these kinds of assembly.

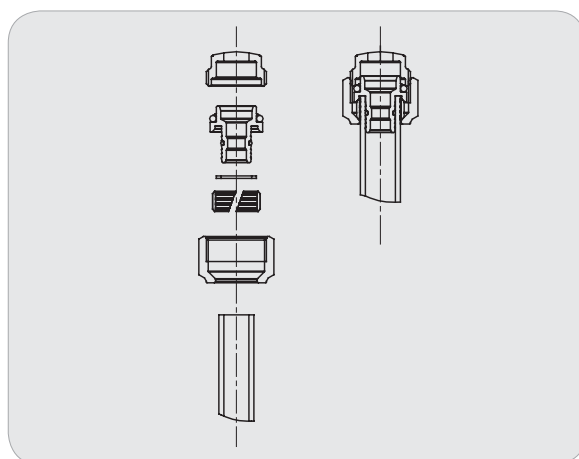
R179 ADAPTER					
VALVE	AVAILABLE SIZES				
3/8" x 16 o 1/2" x 16	16 x (12x1,1)	16 x (12x2)	16 x (14x2)	16 x (15x2)	16 x (15x2,5)
	16 x (16x1,5)	16 x (16x18)	16 x (16x2)	16 x (16x2,2)	16 x (17x2)
	16 x (18x2)	16 x (18x2,5)	16 x (20x1,9)	16 x (20x2)	-
1/2" x 18	18 x (12x1,1)	18 x (12x2)	18 x (14x1)	18 x (14x1,5)	18 x (14x2)
	18 x (15x2)	18 x (15x2,5)	18 x (16x1,5)	18 x (16x1,8)	18 x (16x2)
	18 x (16x2,2)	18 x (17x2)	18 x (17x2,5)	18 x (18x2)	18 x (18x2,5)
	18 x (20x1,9)	18 x (20x2)	18 x (20x2,5)	18 x (20x2,8)	18 x (20x3,4)
	18 x (21x2,5)	18 x (22x2)	-	-	-
3/4" x 22	22 x (16x2,5)	22 x (20x1,9)	22 x (20x2)	22 x (25x2,3)	22 x (25x3,5)



Adapters for multilayer pipe

Following the growing presence of R999 multilayer pipes for the connection to the valves an extensive array of specific R179AM adapters was developed. Always lightly lubricate with silicone grease the O-rings before making these kinds of assembly.

R179 ADAPTER					
VALVE	AVAILABLE SIZES				
3/8" x 16 o 1/2" x 16	16 x (12x1,1)	16 x (14x2)	16 x (16x2)	16 x (16x2,2)	16 x (18x2)
	16 x (16x1,5)	16 x (20x2,5)	-	-	-
1/2" x 18	18 x (14x2)	18 x (16x2)	18 x (16x2,2)	18 x (16x2,2)	-
	-	18 x (20x2)	18 x (20x2,5)	18 x (20x2,5)	-
3/4" x 22	22 x (26x3)	22 x (32x3)	-	-	-



► Self/sealing pipe union

Always attentive to market needs, during long studies and tests at its technological laboratories Giacomini implemented also on the valves and radiator lockshields of the new Giacotech series (in 3/8" and 1/2" sizes) the notion of self/sealing largely used in the components of the manifold family (R590D, R591D, R554A, R554C). The presence of the tightness ring on the conical part of the union pipe allows making the installation without forcing the screwing of the union cap between the body and the union pipe. Following attentively some simple instructions you can quickly make functional long-life installations. The self-sealing union pipe by Giacomini is supplied already equipped with a tightness element in elastomeric material that prepares its assembly on the heating body without the use of hemp, paste or other tightness materials. For proper and fast assembly we recommend light lubrication of the threading before starting the screwing. The screwing phase should be carried out with specific R73 hexagonal Allen wrench (e.g. 10 or 13 mm according to the models). Due to the presence of the tightness element in elastomeric material just apply a screwing torque not higher than 25 Nm.



MICROMETRIC, THERMOSTATIC VALVES
THERMOSTATIC VALVES
MANUAL VALVES
LOCKSHIELDS

GIACOTECH

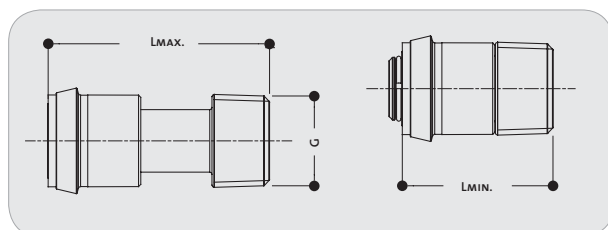


► Chrome-plated telescopic pipe union

In order to facilitate the operations of systems refurbishing the R173 telescopic extensible pipe unions with R173TG self-sealing. The variable length of the pipe union according to installation needs allows saving a lot of time and avoiding the need of extensions, obtaining anyway a simple and reliable assembly. This solution in addition allows compensating very easily any thermal expansions.

CODE	G	Lmin	Lmax	Δ	COMPATIBILITY
R173X002	3/8"	31	47	16	Valves and lockshields 3/8" iron connection
R173X007	3/8"	31	47	16	Valves and lockshields 3/8" x 16
R173X003	1/2"	34	50	16	Valves and lockshields 1/2" x 16 - 1/2" x 18 - 1/2" x 12"
R173X004	3/4"	38	57	19	Valves and lockshields 3/4" x 18 - 3/4" x 22 - 3/4" x 3/4"
R173X005	1"	42	63	21	Valves and lockshields 1" x 1"
R173X006	1" 1/4	50	74	24	Valves and lockshields 1" x 1/4 x 1" x 1/4

CODE	G	Lmin	Lmax	Δ	COMPATIBILITY
R173X032	3/8"	37	53	16	Valves and lockshields iron connection 3/8"
R173X037	3/8"	37	53	16	Valves and lockshields 3/8" x 16
R173X033	1/2"	38	54	16	Valves and lockshields 1/2" x 16 - 1/2" x 18 - 1/2" x 12"



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