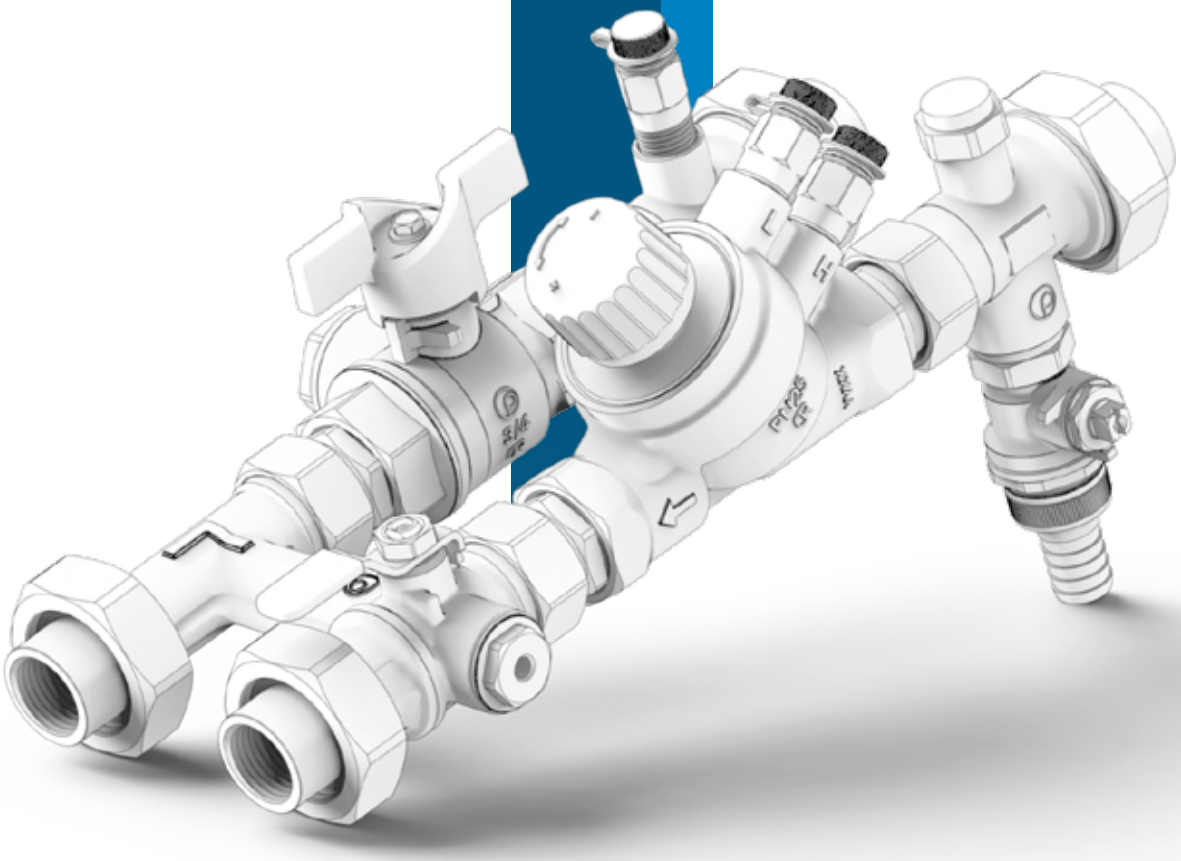
2024

HVAC
WATER distribution



PETTINAROLI

HVAC
WATER distribution

Catalog
2024

V1 Mar 2024

FRATELLI PETTINAROLI S.p.A.
CLIMATE SYSTEMS TECHNOLOGY

FRATELLI
PETTINAROLI S.p.A.
CLIMATE SYSTEMS TECHNOLOGY

FRATELLI PETTINAROLI S.P.A

Ensuring product quality and compliance with international standards has been a corporate prerogative supported for years: this is why the Fratelli Pettinaroli quality system has been **certified by the British Standard Institute since 1975** and has been approved (with constant updates) according to **ISO 9001**. The company also holds **ISO 14001** and **ISO 50001** certifications, remarking its commitment to manufacturing while protecting the environment and the local territory, to whom has always been strongly linked. The **high level of raw materials** used in Pettinaroli guarantees the high standard of each piece manufactured. Products can also bear the **approval of 16 authorised institutions**, thanks to their high quality standards, to the strict tests and to the continuous monitoring carried out on them. Fratelli Pettinaroli is also the first company to have obtained the prestigious **NSF OQC registration**, a certification that proves the true origin of all the components in order to guarantee and affirm that its production is **100% made in italy**. The company's vision is constantly focused on research & development and realisation of environmentally friendly and energy saving products, in different sectors of activity: **heating, air conditioning, sanitary installations, gas and renewable energies**. Despite more than 80 years of constant growth, **Pettinaroli is still family owned** with a philosophy of continuous improvement. In addition, the utmost attention is paid to: quality testing, internal auditing, product and process innovation and dedicated human resources. Relying on these sturdy foundations, Fratelli Pettinaroli aims **to overcome future challenges, turning each of them into new goals to be achieved**.

FRATELLI PETTINAROLI SPA

The **mechanics workshop** manufactures and equip the production with all the tools necessary. In Pettinaroli not only the products, but also any tooling is designed and manufactured in-house.

Equipment produced and tools / year:
1.000 - 2.000 pcs

Machinery equipment / year:
Over 10.000 pcs

The **turnery department**, made for brass processing from rod or forged bodies, includes single-spindle, multi-spindle and CNC machines, capable of working with traditional and lead-free brass.

Machined brass rod:
Traditional **CW614** & **CW617**
CW602 corrosion resistant
Lead-free **CW510** & **CW511L**

Lathe machines:
Mechanical **multi-spindle**
Electronic **single-spindle**
Transfer machines
CNC machines

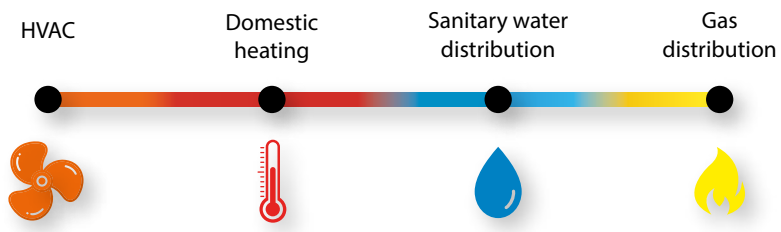
The **assembly department** employs more than 75 workers equipped with automatic machines for the mounting of manifolds, radiator valves and ball valves plus a specific area dedicated to the assembly and testing of PICV valves and commissioning kits.

Material movement capacity / day:
Over 300.000 pcs

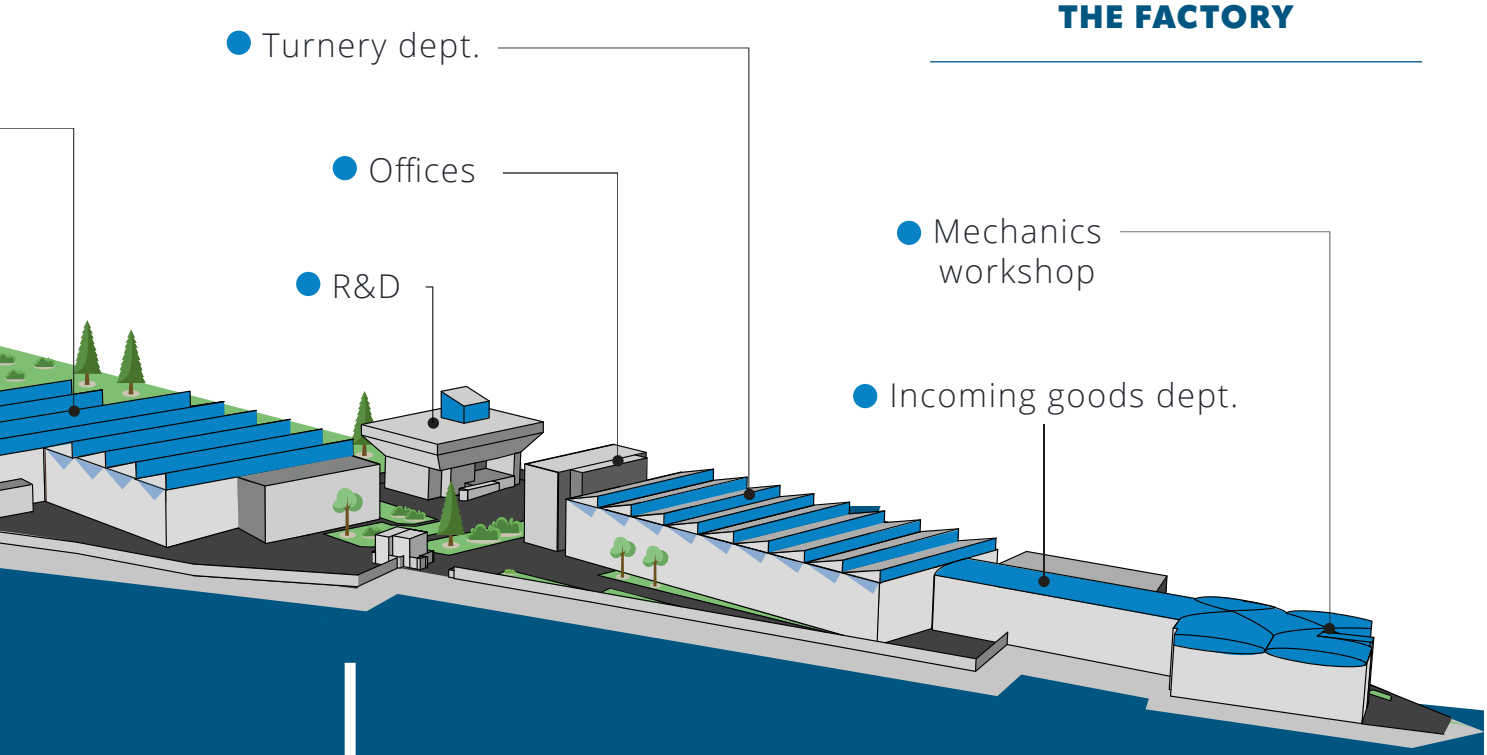
Production capacity / day:
70.000 complete products

Handling of material with forklifts / day:
Over 400

BUSINESS AREAS



THE FACTORY



Pettinaroli France
Carmaux - FRA

Pettinaroli Suisse
Montreux - SUI

TSM Galvanocromo
Gozzano - ITA

Jomar Group
Warren - USA

Hydronic Components
HCi
Warren - USA

Pettinaroli Middle East
Dubai - UAE

+ 20.000.000
Finished products

+ 90.000.000
Handling operations

+ 7.000
Shipped pallets

+ 150
Shipped containers

PRODUCT INDEX

CHAPTER INDEX

PICV
pressure independent control valves

DYNASTY

EvoPICV
Pressure Independent Control Valve

EvoPICV R
Rotary Pressure Independent Control Valve

DYNASTY

The new **Dynasty** range of **PICV** has been designed to give all the advantages of the existing PICV valve range with the added benefit of **operating in heavily contaminated water**.
The valve has a **Linear characteristic** and it has also been **designed to allow the internals to be removed, clean and replaced** without effecting the performance of the valve.

★★★★★
5 YEARS WARRANTY
ON PRODUCTION DEFECTS

Patented
PATENT
IT1428884
US9910447 B2
EP3067772 B1


92VL-92L 1/2″


92H 1/2″


92L-92H 3/4″


92L-92H 1″ - 92H 1 1/4″


92H 1 1/2″ - 92H 2″


92X/2

FEATURES AND ADVANTAGES

√ LOW MINIMUM PRESSURE required for start-up

√ THERMAL ACTUATORS and ELECTRO MECHANICAL ACTUATORS available

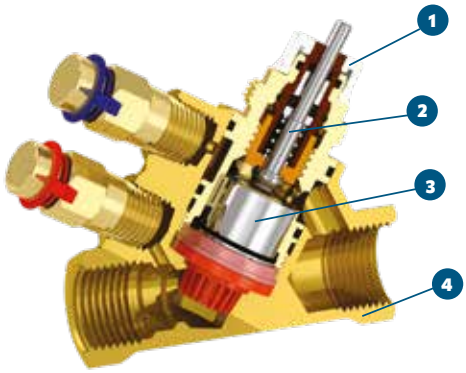
√ DIRT RESISTANT DIAPHRAGM
life-tested according to proprietary **test with dirty water,**
constantly contaminated by **900 PPM of Iron Oxide Fe2O3 (5 micorns).**

√ COMPACT size

√ LINEAR and Equalpercentage characteristic thru actuator

√ EASY manteinance

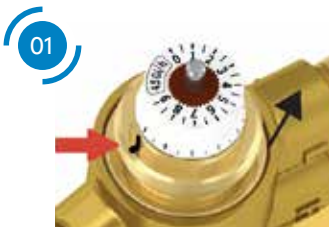
TECHNICAL SPECIFICATIONS



	Material list
Regulating valve (2)	Hight performance polymer, stainless steel
Pre-setting knob (1)	ABS + Polycarbonate
Membrane based diaphgram (3)	Hight performance polymer, WMQ silicon, stainless steel, HNBR
Body (4)	Corrosion resistant brass CW602N
O-rings	EPDM-x

√ INTERNAL PRESETTING
with strike reduction of the control valve

√ ACCESSIBLE
diaphragm for easy manteinance



92 DYNASTY

Dynasty Pressure independent balancing and control valve with linear characteristic.

Connections: F x F
Patent: IT1428884 - US9910447 B2 - EP3067772 B1
Insulating case: Available

Ø"		Code
92VL 1/2"	1	3701592010C
92L 1/2"	1	3701592000C
92H 1/2"	1	3701592210C
92L 3/4"	1	3702092000C
92H 3/4"	1	3702092080C
92L 1"	1	3702592040C
92H 1"	1	3702592030C
92H 1 1/4"	1	3703292010C
92H 1 1/2"	1	3704092000C
92H 2"	1	

Ø"		Code
92VLN 1/2" NPT	1	3701592005C
92LN 1/2" NPT	1	3701592015C
92HN 1/2" NPT	1	3701592220C
92LN 3/4" NPT	1	3702092015C
92HN 3/4" NPT	1	3702092090C
92LN 1" NPT	1	3702592070C
92HN 1" NPT	1	3702592050C
92HN 1 1/4" NPT	1	3703292011C
92HN 1 1/2" NPT	1	3704092010C
92HN 2" NPT	1	

92_1 DYNASTY

EvoPICV Pressure independent balancing and control valve with linear characteristic. With predisposition of pressure ports.

Connections: F x F
PATENT IT1428884 - US9910447 B2 - EP3067772 B1
Insulating case: Available

Ø"		Code
92VL1 1/2"	1	3701592110C
92L1 1/2"	1	3701592100C
92H1 1/2"	1	3701592180C
92L1 3/4"	1	3702092100C
92H1 3/4"	1	3702092180C
92L1 1"	1	3702592100C
92H1 1"	1	3702892180C
92H1 1 1/4"	1	3703292020C
92H1 1 1/2"	1	3704092070C
92H1 2"	1	

Ø"		Code
92VL1N 1/2" NPT	1	
92L1N 1/2" NPT	1	3701592105C
92H1N 1/2" NPT	1	
92L1N 3/4" NPT	1	3702092105C
92H1N 3/4" NPT	1	3702092200C
92L1N 1" NPT	1	
92H1N 1" NPT	1	
92H1N 1 1/4" NPT	1	
92H1N 1 1/2" NPT	1	
92H1N 2" NPT	1	

	92VL ½" 92VL1 ½"	92L ½" 92L1 ½"	92H ½" 92H1 ½"	92L ¾" 92L1 ¾"	92H ¾" 92H1 ¾"	92L 1" 92L1 1"	92H 1" 92H1 1"	92H 1 1/4" 92H1 1 1/4"	92H 1 1/2" 92H1 1 1/2"	92H 2" 92H1 2"
Flow rate max.	150 l/h 0,66 GPM	450 l/h 1,98 GPM	850 l/h 3,74 GPM	1000 l/h 4,40 GPM	1850 l/h 8,15 GPM	2500 l/h 11,01 GPM	3300 l/h 14,53 GPM	5200 l/h 22,89 GPM	9000 l/h 39,63 GPM	14000 l/h 61,70 GPM
Start-up max	3,63 psi 0,25 bar	5,08 psi 0,35 bar	4,35 psi 0,30 bar	4,35 psi 0,30 bar	5,08 psi 0,35 bar	4,35 psi 0,30 bar	4,35 psi 0,30 bar	5,08 psi 0,35 bar	5,80 psi 0,40 bar	5,80 psi 0,40 bar
Connections	Rp 1/2" F EN 10226-1	Rp 1/2" F EN 10226-1	Rp 1/2" F EN 10226-1	Rp 3/4" F EN 10226-1	Rp 3/4" F EN 10226-1	Rp 1" union F EN 10226-1	Rp 1" union F EN 10226-1	Rc 1 1/4" union F EN 10226-1	Rp 1 1/2" F EN 10226-1	Rp 2" F EN 10226-1
	92VLN ½" 92VL1N ½"	92LN ½" 92L1N ½"	92HN ½" 92H1N ½"	92LN ¾" 92L1N ¾"	92HN ¾" 92H1N ¾"	92LN 1" 92L1N 1"	92HN 1" 92H1N 1"	92HN 1 1/4" 92H1N 1 1/4"	92HN 1 1/2" 92H1N 1 1/2"	92HN 2" 92H1N 2"
Connections	F 1/2" NPT	F 1/2" NPT	F 1/2" NPT	F 3/4" NPT	F 3/4" NPT	1" NPT union F	1" NPT union F	1 1/4" NPT union F	F 1 1/2" NPT	F 2" NPT

General technical specifications	
Accuracy 0 ÷ 1 bar	± 5%
ΔP max.	87,02 psi / 6 bar
Temperature	-10 ÷ 120 °C
Working pressure max.	362,59 psi / 25 bar
Stroke 1/2" - 3/4"	3 mm
Stroke 1" - 1 1/4"	6 mm
Stroke 1 1/2" - 2"	7,5 mm

92X/2 DYNASTY

EvoPICV Pressure independent balancing and control valve with linear characteristic.

Connections: M x M
PATENT IT1428884 - US9910447 B2 - EP3067772 B1

Ø"		Code
92XVL/2 1/2"	1	3701592230C
92XL/2 1/2"	1	3701592240C
92XVL/2 3/4"	1	3702092240C
92XL/2 3/4"	1	3702092250C
92XVL/2 1"	1	3702592230C
92XL/2 1"	1	3702592240C
92XH/2 1"	1	3702092230C

General technical specifications	
Accuracy 0 ÷ 1 bar	± 5%
ΔP max.	87,02 psi / 6 bar
Temperature	-10 ÷ 120 °C
Working pressure max.	362,59 psi / 25 bar
Stroke	3 mm

	92XVL/2 ½"	92XL/2 ½"	92XVL/2 ¾"	92XL/2 ¾"	92XVL/2 1"	92XL/2 1"	92XH/2 1"
Flow rate max.	150 l/h 0,66 GPM	450 l/h 1,98 GPM	150 l/h 0,66 GPM	450 l/h 1,98 GPM	850 l/h 3,74 GPM	1000 l/h 4,40 GPM	1850 l/h 8,15 GPM
Start-up max	3,63 psi 0,25 bar	5,08 psi 0,35 bar	3,63 psi 0,25 bar	5,08 psi 0,35 bar	3,63 psi 0,25 bar	4,35 psi 0,30 bar	5,08 psi 0,35 bar
Connections	G 1/2" M ISO 228-1	G 1/2" M ISO 228-1	G 3/4" M ISO 228-1	G 3/4" M ISO 228-1	G 1" M ISO 228-1	G 1" M ISO 228-1	G 1" M ISO 228-1

EvoPICV

Pressure Independent Control Valve

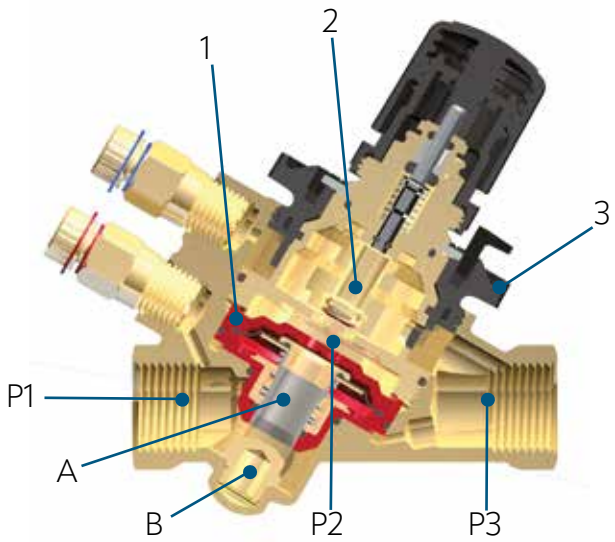
The **EvoPICV** Pressure Independent Control Valve "PICV" is a combined constant flow limiter and full stroke, full authority equal percentage temperature control valve.
The **EvoPICV** is suitable for use in variable and constant temperature systems and may be used as a constant flow limiter in constant volume systems (without an actuator head) or as a true PICV in variable volume systems.

OPERATING PRINCIPLES

EvoPICV valve is made up of three main parts:
1. differential pressure regulator
2. regulating valve for flow adjustment
3. flow pre-setting knob

DIFFERENTIAL PRESSURE REGULATOR

The differential pressure regulator is the heart of the pressure independent control valve. By keeping a constant differential pressure across the valve seats constant flow and full authority temperature control can be achieved.
Incoming pressure P1 is transmitted to the top face of the diaphragm, outgoing pressure P3 is transmitted to the underside of this same diaphragm. A constant effective differential pressure is maintained between P2 and P3. As P1 increases relative to P3 it acts on the diaphragm closing the shutter (A) against a seat (B) thereby lowering the effective differential pressure. As P1 decreases relative to P3 the diaphragm acts to open the shutter (A) from the seat (B) thus increasing the effective differential pressure. The diaphragm acts against a spring in order to balance the pressure control and stop the diaphragm oscillating.

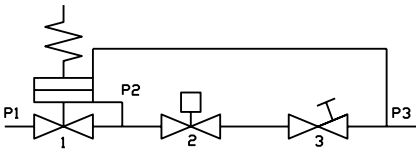


REGULATION VALVE

Water flow through a valve varies as a function of the area of passage and the pressure differential across that valve. Due to the incorporation of the differential pressure regulator the differential pressure across the valve seats P2 – P3 is constant meaning that flow is now only a function of area of passage.
Setting any flow rate value and maintaining it is also possible. The regulation valve presents an equal percentage characteristic.

ADJUSTMENT KNOB

The maximum value of the flow can be preset, choking the outlet section of the control valve, using the graduated adjustment knob. The percentage value, indicated on the scale, matches the maximum flow rate percentage. This value can be changed turning the adjustment knob until it reaches the selected position (matching the percentage indicated on the scale). A locking mechanism stops the valve set values from being changed inadvertently.



Functional

91 EvoPICV

EvoPICV Pressure independent balancing and control valve with equal percentage characteristic.

Connections: F x F
Patent: EP 2488994 B1 - US 8,985,140 B2
Insulating case: Available

Ø"		Code
91VL 1/2"	1	3701590220C
91L 1/2"	1	3701590070C
91H 1/2"	1	3701590090C
91L 3/4"	1	3702090080C
91H 3/4"	1	3702090100C
91H 1"	1	3702890090C

Ø"		Code
91VL 1/2" NPT	1	
91L 1/2" NPT	1	3701590130C
91H 1/2" NPT	1	3701690090C
91L 3/4" NPT	1	3702090130C
91H 3/4" NPT	1	3702290100C
91H 1" NPT	1	

91_1 EvoPICV

EvoPICV Pressure independent balancing and control valve with equal percentage characteristic. With predisposition of pressure ports.

Connections: F x F
Patent: EP 2488994 B1 - US 8,985,140 B2
Insulating case: Available

Ø"		Code
91VL1 1/2"	1	3701590250C
91L1 1/2"	1	3701590280C
91H1 1/2"	1	3701590190C
91L1 3/4"	1	3702090280C
91H1 3/4"	1	3702090190C
91H1 1"	1	3702890190C

Ø"		Code
91VL1 1/2" NPT	1	
91L1 1/2" NPT	1	3701690280C
91H1 1/2" NPT	1	
91L1 3/4" NPT	1	
91H1 3/4" NPT	1	3702290190C
91H1 1" NPT	1	

General technical specifications	
Accuracy 0 ÷ 1 bar	± 5 %
ΔP max.	87,02 psi / 6 bar
Temperature	-10 ÷ 120 °C
Working pressure max.	362,59 psi / 25 bar
Stroke	3 mm

	91VL ½" 91VL1 ½"	91L ½" 91L1 ½"	91H ½" 91H1 ½"	91L ¾" 91L1 ¾"	91H ¾" 91H1 ¾"	91H 1" 91H1 1"
Flow rate max.	150 l/h 0,66 GPM	600 l/h 2,64 GPM	780 l/h 3,43 GPM	1000 l/h 4,40 GPM	1500 l/h 6,60 GPM	1500 l/h 6,60 GPM
Start-up max	2,9 psi 0,20 bar	3,63 psi 0,25 bar	5,08 psi 0,35 bar	4,35 psi 0,30 bar	5,08 psi 0,35 bar	5,08 psi 0,35 bar
Connections	Rp ½" F EN 10226-1	Rp ½" F EN 10226-1	Rp ½" F EN 10226-1	Rp ¾" F EN 10226-1	Rp ¾" F EN 10226-1	Rp 1" union F EN 10226-1
	91VL ½" NPT 91VL1 ½" NPT	91L ½" NPT 91L1 ½" NPT	91H ½" NPT 91H1 ½" NPT	91L ¾" NPT 91L1 ¾" NPT	91H ¾" NPT 91H1 ¾" NPT	91H 1" NPT 91H1 1" NPT
Connections	1/2" NPT	1/2" NPT	1/2" NPT	3/4" NPT	3/4" NPT	1" NPT

91X EvoPICV

EvoPICV Pressure independent balancing and control valve with equal percentage characteristic. Without pressure ports.

Connections: F x F
Patent: EP 2488994 B1 - US 8,985,140 B2
Insulating case: Available

Ø"		Code
91XVL 1/2"	1	3701590320C
91XL 1/2"	1	3701610170C
91XH 1/2"	1	3701590310C

Ø"		Code
91XVL 1/2" NPT	1	
91XL 1/2" NPT	1	
91XH 1/2" NPT	1	3701511310C

91X/2 EvoPICV

EvoPICV Pressure independent balancing and control valve with equal percentage characteristic. Without pressure ports.

Connections: M x M flat seat
Patent: EP 2488994 B1 - US 8,985,140 B2
Insulating case: Available

Ø"		Code
91XVL/2 1/2"	1	
91XL/2 1/2"	1	3701410170C
91XL/2 3/4"	1	3702010170C
91XH/2 3/4"	1	3702090320C

General technical specifications	
Accuracy 0 ÷ 1 bar	± 5%
ΔP max.	87,02 psi / 6 bar
Temperature	-10 ÷ 120 °C
Working pressure max.	362,59 psi / 25 bar
Stroke	3 mm

	91XVL ½"	91XL ½"	91XH ½"
Flow rate max.	150 l/h 0,66 GPM	600 l/h 2,64 GPM	900 l/h 3,96 GPM
Start-up max	2,9 psi 0,20 bar	3,63 psi 0,25 bar	4,35 psi 0,30 bar
Connections	Rp ½" F EN 10226-1	Rp ½" F EN 10226-1	Rp ½" F EN 10226-1
	91XVL ½" NPT	91XL ½" NPT	91XH ½" NPT
Connections	1/2" NPT	1/2" NPT	1/2" NPT

	91XVL/2 ½"	91XL/2 ½"	91XL/2 ¾"	91XH/2 ¾"
Flow rate max.	150 l/h 0,66 GPM	600 l/h 2,64 GPM	600 l/h 2,64 GPM	900 l/h 3,96 GPM
Start-up max	2,9 psi 0,20 bar	3,63 psi 0,25 bar	3,63 psi 0,25 bar	4,35 psi 0,30 bar
Connections	G 1/2" M EN 10226-1	G 1/2" M EN 10226-1	G 3/4" M EN 10226-1	G 3/4" M EN 10226-1

91X/3 EvoPICV

EvoPICV Pressure independent balancing and control valve with equal percentage characteristic. Without pressure ports.

Connections: F x Union ends
Patent: EP 2488994 B1 - US 8,985,140 B2
Insulating case: Available

Ø"		Code
91XVL/3 1/2" F x 1/2" M	1	3701610291C
91XL/3 1/2" F x 1/2" M	1	3701610271C
91XH/3 1/2" F x 1/2" M	1	3701610281C

91X3S EvoPICV

EvoPICV Pressure independent balancing and control valve with equal percentage characteristic. Without pressure ports.

Connections: F x M BS5250
Patent: EP 2488994 B1 - US 8,985,140 B2
Insulating case: Available

Ø"		Code
91XVL3S 1/2" F x 3/4" M	1	
91XL3S 1/2" F x 3/4" M	1	3701610270C
91XH3S 1/2" F x 3/4" M	1	

General technical specifications	
Accuracy 0 ÷ 1 bar	± 5%
ΔP max.	87,02 psi / 6 bar
Temperature	-10 ÷ 120 °C
Working pressure max.	362,59 psi / 25 bar
Stroke	3 mm

	91XVL/3 ½"x ½"	91XL/3 ½"x ½"	91XH/3 ½"x ½"
Flow rate max.	150 l/h 0,66 GPM	600 l/h 2,64 GPM	900 l/h 3,96 GPM
Start-up max	2,9 psi 0,20 bar	3,63 psi 0,25 bar	4,35 psi 0,30 bar
Connections	½" F x ½" union M EN 10226-1	½" F x ½" union M EN 10226-1	½" F x ½" union M EN 10226-1

	91XVL3S ½"x¾"	91XL3S ½"x¾"	91XH3S ½"x¾"
Flow rate max.	150 l/h 0,66 GPM	600 l/h 2,64 GPM	900 l/h 3,96 GPM
Start-up max	2,9 psi 0,20 bar	3,63 psi 0,25 bar	4,35 psi 0,30 bar
Connections	½"F x ¾"M BS5250 60° EN 10226-1	½"F x ¾"M BS5250 60° EN 10226-1	½"F x ¾"M BS5250 60° EN 10226-1

93 EvoPICV

EvoPICV Pressure independent balancing and control valve with equal percentage characteristic.

Connections: Union end F x F
Patent: EP 2488994 B1 - US 8,985,140 B2
Insulating case: Available

Ø"		Code
93L 3/4"	1	3702090090C
93H 3/4"	1	3702090180C
93L 1"	1	3702590090C
93H 1"	1	3702590180C
93L 1 1/4"	1	3703290090C
93H 1 1/4"	1	3703290180C

Ø"		Code
93L 3/4" NPT	1	3702290090C
93H 3/4" NPT	1	3702090220C
93L 1" NPT	1	3702690090C
93H 1" NPT	1	3702591220C
93L 1 1/4" NPT	1	
93H 1 1/4" NPT	1	3703290220C

93_1 EvoPICV

EvoPICV Pressure independent balancing and control valve with equal percentage characteristic. With predisposition of pressure ports.

Connections: F x F Union end
Patent: EP 2488994 B1 - US 8,985,140 B2
Insulating case: Available

Ø"		Code
93L1 3/4"	1	3702290140C
93H1 3/4"	1	3702290350C
93L1 1"	1	3702590140C
93H1 1"	1	3702890350C
93L1 1 1/4"	1	3703290150C
93H1 1 1/4"	1	3703290350C

Ø"		Code
93L1 3/4" NPT	1	3702290150C
93H1 3/4" NPT	1	
93L1 1" NPT	1	
93H1 1" NPT	1	
93L1 1 1/4" NPT	1	
93H1 1 1/4" NPT	1	

General technical specifications	
Accuracy 0 ÷ 1 bar	± 5%
ΔP max.	87,02 psi / 6 bar
Temperature	-10 ÷ 120 °C
Working pressure max.	362,59 psi / 25 bar
Stroke	6 mm

	93L ¾" 93L1 ¾"	93H ¾" 93H1 ¾"	93L 1" 93L1 1"	93H 1" 93H1 1"	93L 1 1/4" 93L1 1 1/4"	93H 1 1/4" 93H1 1 1/4"
Flow rate max.	2200 l/h 9,69 GPM	2700 l/h 11,89 GPM	2200 l/h 9,69 GPM	2700 l/h 11,89 GPM	2700 l/h 11,89 GPM	3000 l/h 13,21 GPM
Start-up max	3,63 psi 0,25 bar	4,35 psi 0,30 bar	3,63 psi 0,25 bar	4,35 psi 0,30 bar	4,35 psi 0,30 bar	5,08 psi 0,35 bar
Connections	Rc ¾" union F EN 10226-1	Rc ¾" union F EN 10226-1	Rc 1" union F EN 10226-1	Rc 1" union F EN 10226-1	Rc 1 1/4" union F EN 10226-1	Rc 1 1/4" union F EN 10226-1
	93L ¾" NPT 93L1 ¾" NPT	93H ¾" NPT 93H1 ¾" NPT	93L 1" NPT 93L1 1" NPT	93H 1" NPT 93H1 1" NPT	93L 1 1/4" NPT 93L1 1 1/4" NPT	93H 1 1/4" NPT 93H1 1 1/4" NPT
Connections	3/4" NPT	3/4" NPT	1" NPT	1" NPT	1 1/4" NPT	1 1/4" NPT

EvoPICV R

Rotary Pressure Independent Control Valve

81

EvoPICV Pressure independent balancing and control valve with equal percentage characteristic for rotary actuator.
Connections: F x F BSP
81_JP: suitable for Pettinaroli and JCI actuators
81_SP: suitable for Sauter and Siemens actuators

Ø"		Code
81VLJP 1/2"	1	3701590210C
81LJP 1/2"	1	3701590100C
81HJP 1/2"	1	3701590260C
81LJP 3/4"	1	3702090210C
81HJP 3/4"	1	3702090260C

Ø"		Code
81VLSP 1/2"	1	3701590720C
81LSP 1/2"	1	3701590700C
81HSP 1/2"	1	3701590290C
81LSP 3/4"	1	
81HSP 3/4"	1	3702090270C

83

EvoPICV Pressure independent balancing and control valve with equal percentage characteristic for rotary actuator.
Connections: Union end F x F BSP
83_JP: suitable for Pettinaroli and JCI actuators
83_SP: suitable for Sauter and Siemens actuators

Ø"		Code
83HJP 3/4" DN25	1	3702090151C
83LJP 1" DN25	1	
83HJP 1" DN25	1	3702590071C
83LJP 1 1/4" DN25	1	
83HJP 1 1/4" DN25	1	3703290250C

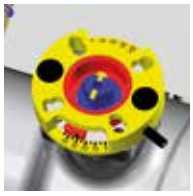
Ø"		Code
83HSP 3/4" DN25	1	
83LSP 1" DN25	1	
83HSP 1" DN25	1	
83LSP 1 1/4" DN25	1	
83HSP 1 1/4" DN25	1	

General technical specifications	
Accuracy 0 ÷ 1 bar	± 5%
ΔP max.	87 psi / 6 bar
Temperature	-10 ÷ 120 °C
Working pressure max.	362,59 psi / 25 bar
Stroke	90°

81	81VLSP ½" 81VLJP ½"	81LSP ½" 81LJP ½"	81HSP ½" 81HJP ½"	81LSP ¾" 81LJP ¾"	81HSP ¾" 81HJP ¾"
Flow rate max.	360 l/h 1,59 GPM	700 l/h 3,08 GPM	1000 l/h 4,40 GPM	780 l/h 3,43 GPM	1150 l/h 5,06 GPM
Start-up max	2,9 psi 0,20 bar	2,9 psi 0,20 bar	2,9 psi 0,20 bar	3,63 psi 0,25 bar	3,63 psi 0,25 bar

83	83HSP 3/4" 83HJP 3/4"	83LSP 1" 83LJP 1"	83HSP 1" 83HJP 1"	83LSP 1 1/4" 83LJP 1 1/4"	83HSP 1 1/4" 83HJP 1 1/4"
Flow rate max.	2200 l/h 9,69 GPM	2200 l/h 9,69 GPM	2700 l/h 11,89 GPM	3000 l/h 13,21 GPM	4000 l/h 17,61 GPM
Start-up max	4,35 psi 0,30 bar	4,35 psi 0,30 bar	4,35 psi 0,30 bar	4,35 psi 0,30 bar	4,35 psi 0,30 bar

83_PR



EvoPICV Pressure independent balancing and control valve with equal percentage characteristic for rotary actuator.
Connections: F x F Union end
Patent: EP2.841.853.B1 - US9383033B2
Features: With Presetting device 081PR1
Insulating case: Available

Ø"		Code
83HPR1 1 1/4" DN40	1	3704240160C
83LPR1 1 1/2" DN40	1	3704040140C
83HPR1 1 1/2" DN40	1	3704040160C
83VLPR1 2" DN40	1	3704040230C
83LPR1 2" DN50	1	3705040130C
83HPR1 2" DN50	1	3705040180C

Ø"		Code
83HPR1 1 1/4" NPT DN40	1	3704540160C
83LPR1 1 1/2" NPT DN40	1	3704240140C
83HPR1 1 1/2" NPT DN40	1	3704240100C
83VLPR1 2" NPT DN40	1	3704540230C
83LPR1 2" NPT DN50	1	3705440130C
83HPR1 2" NPT DN50	1	3705440080C

General technical specifications	
Accuracy 0 ÷ 1 bar	± 5%
ΔP max.	87,02 psi/ 6 bar
Temperature	-10 ÷ 120 °C
Working pressure max.	232,06 psi / 16 bar
Stroke	90°

	83HPR1 1 1/4"	83LPR1 1 1/2"	83HPR1 1 1/2"	83VLPR1 2"	83LPR1 2"	83HPR1 2"
Flow rate max.	6000 l/h 26,42 GPM	6000 l/h 26,42 GPM	9000 l/h 39,63 GPM	11000 l/h 48,43 GPM	12000 l/h 52,83 GPM	18000 l/h 79,25 GPM
Start-up max	4,35 psi 0,30 bar	4,35 psi 0,30 bar	5,08 psi 0,35 bar	5,80 psi 0,40 bar	5,08 psi 0,35 bar	5,08 psi 0,35 bar
Connections	Rc 1 1/4" union F EN 10226-1	Rc 1 1/2" union F EN 10226-1	Rc 1 1/2" union F EN 10226-1	Rc 2" union F EN 10226-1	Rc 2" union F EN 10226-1	Rc 2" union F EN 10226-1
	83HPR1 1 1/4" NPT	83LPR1 1 1/2" NPT	83HPR1 1 1/2" NPT	83VLPR1 2" NPT	83LPR1 2" NPT	83HPR1 2" NPT
Connections	1 1/4" NPT	1 1/2" NPT	1 1/2" NPT	2" NPT	2" NPT	2" NPT

94F

EvoPICV Pressure independent balancing and control valve.

Connections: Flanged
Features: Smart actuator included
Insulating case: Available

Ø"		Code
94FH 2" DN50	1	3705040600C
94FH 2 1/2" DN65	1	3706540600C
94FL 3" DN80	1	3708040610C
94FL 4" DN100	1	3710040610C
94FL 5" DN125	1	3712540610C
94FH 5" DN125	1	3712540600C
94FH 6" DN150	1	3715040600C
94FL 8" DN200	1	3720040310C
94FH 8" DN200	1	3725040310C
94FH 10" DN250	1	3725040300C

General technical specifications	
Accuracy 0 ÷ 1 bar	± 5%
ΔP max.	87,02 psi/ 6 bar from 2" to 6" 58,02 psi / 4 bar from 8" to 10"
Temperature	-10 ÷ 120 °C
Working pressure max.	232,06 psi / 16 bar

	94FH 2"	94FH 2 1/2"	94FL 3"	94FL 4"	94FL 5"	94FH 5"	94FH 6"	94FL 8"	94FH 8"	94FH 10"
Flow rate max.	20000 l/h 88,06 GPM	30000 l/h 132,09 GPM	30000 l/h 132,09 GPM	55000 l/h 242,16 GPM	90000 l/h 396,26 GPM	120000 l/h 528,34 GPM	150000 l/h 660,43 GPM	200000 l/h 880,57 GPM	300000 l/h 1320,86 GPM	500000 l/h 2201,43 GPM
Start-up max	5,80 psi 0,40 bar	4,35 psi 0,30 bar	4,35 psi 0,30 bar	4,35 psi 0,30 bar	5,08 psi 0,35 bar	5,08 psi 0,35 bar	7,25 psi 0,50 bar	5,80 psi 0,40 bar	5,80 psi 0,40 bar	9,43 psi 0,65 bar
Connections	Flanged EN 1092-2	Flanged EN 1092-2	Flanged EN 1092-2	Flanged EN 1092-2	Flanged EN 1092-2	Flanged EN 1092-2	Flanged EN 1092-2	Flanged EN 1092-2	Flanged EN 1092-2	Flanged EN 1092-2

95F

EvoPICV Pressure independent balancing and control valve.

Connections: ANSI Flanged
Features: Smart actuator included
Insulating case: Available

Ø"		Code
95FH 2" DN50	1	3705040630C
95FH 2 1/2" DN65	1	3706540630C
95FL 3" DN65	1	3708040620C
95FL 4" DN100	1	3710040620C
95FL 6" DN150	1	3715040620C
95FH 6" DN150	1	3715040630C

General technical specifications	
Accuracy 0 ÷ 1 bar	± 5%
ΔP max.	87,02 psi/ 6 bar
Temperature	-10 ÷ 120 °C
Working pressure max.	232,06 psi / 16 bar

	95FH 2"	95FH 2 1/2"	95FL 3"	95FL 4"	95FL 6"	95FH 6"
Flow rate max.	20000 l/h 88,06 GPM	30000 l/h 132,09 GPM	30000 l/h 132,09 GPM	55000 l/h 242,16 GPM	90000 l/h 396,26 GPM	150000 l/h 660,43 GPM
Start-up max	5,80 psi 0,40 bar	4,35 psi 0,30 bar	4,35 psi 0,30 bar	4,35 psi 0,30 bar	5,08 psi 0,35 bar	7,25 psi 0,50 bar
Connections	Flanged 2" ANSI B16.42 EN 558 (face to face)	Flanged 2 1/2" ANSI B16.42 EN 558 (face to face)	Flanged 3" ANSI B16.42 EN 558 (face to face)	Flanged 4" ANSI B16.42 EN 558 (face to face)	Flanged 6" ANSI B16.42 EN 558 (face to face)	Flanged 6" ANSI B16.42 EN 558 (face to face)

ACTUATORS
thermoelectric and electromechanical

V54202

Thermo-electric actuator ON-OFF-PWM N.C. (normally closed) 230V, with adapter VA64. For 91 series and 92 (1/2" - 3/4") series. Stroke 4 mm. Cable 1 m.

V		Code
230 V - ON/OFF PWM - 4 mm - VA64	100/1	V542020001C

V54402

Thermo-electric actuator ON-OFF-PWM N.C. (normally closed) 24V, with adapter VA64. For 91 series and 92 (1/2" - 3/4") series. Stroke 4 mm. Cable 1 m.

V		Code
24 V - ON/OFF PWM - 4 mm - VA64	100/1	V544020001C

A54202

Thermo-electric actuator ON-OFF-PWM N.C. (normally closed) 230V, with adapter VA64. For 91 series and 92 (1/2" - 3/4") series. Stroke 4 mm. Cable 1 m.

V		Code
230 V - ON/OFF PWM - 4 mm - VA64	100/1	A542O20001C

A54402

Thermo-electric actuator ON-OFF-PWM N.C. (normally closed) 24V, with adapter VA64. For 91 series and 92 (1/2" - 3/4") series. Stroke 4 mm. Cable 1 m.

V		Code
24 V - ON/OFF PWM - 4 mm - VA64	100/1	A544O20001C

A54204

Thermo-electric actuator ON-OFF-PWM N.C. (normally closed) 230V, with adapter VA64. For 91 series and 92 (1/2" - 3/4") series. Stroke 4 mm. Cable 1 m.
Features: With micro aux. 4 wires

V		Code
230 V - ON/OFF PWM - 4 mm - VA64	1	A542O40001C

A54404

Thermo-electric actuator ON-OFF-PWM N.C. (normally closed) 24V, with adapter VA64. For 91 series and 92 (1/2" - 3/4") series. Stroke 4 mm. Cable 1 m.
Features: With micro aux 4 wires

V		Code
24 V - ON/OFF PWM - 4 mm - VA64	1	A544O40001C

MT541O2

Thermo-electric actuator ON-OFF N.C. (normally closed) - 120V, with adapter 0A7010, For 91 series and 92 (1/2" - 3/4") series. Stroke 4 mm.

V		Code
120 V - ON/OFF - 4 mm	100/1	MT541O2001C

A56102

Thermo-electric actuator ON-OFF-PWM N.C. (normally closed) 120V, with adapter VA64. For 93 series and 92 (1" - 1 1/4") series. Stroke 6,5 mm. Cable 1 m.

V		Code
120 V - ON/OFF PWM - 6,5 mm - VA64	100/1	A561O20001C

A56202

Thermo-electric actuator ON-OFF-PWM N.C. (normally closed) 230V, with adapter VA64. For 93 series and 92 (1" - 1 1/4") series. Stroke 6,5 mm. Cable 1 m.

V		Code
230 V - ON/OFF PWM - 6,5 mm - VA64	100/1	A562O20001C

A56402

Thermo-electric actuator ON-OFF-PWM N.C. (normally closed) 24V, with adapter VA64. For 93 series and 92 (1" - 1 1/4") series. Stroke 6,5 mm. Cable 1 m.

V		Code
24 V - ON/OFF PWM - 6,5 mm - VA64	100/1	A564O20001C

A544P3

Thermo-electric actuator 24V with VA64 adapter. Proportional 0-10V (normally closed). For 91 series and 92 (1/2" - 3/4") series. Stroke 4 mm. Cable 1 m.

V		Code
24 V - (0-10V) - 4 mm - VA64	1	A544P30001C

A564P3

Thermo-electric actuator 24V with VA64 adapter. Proportional 0-10V (normally closed). For 93 series and 92 (1" - 1 1/4") series. Stroke 6,5 mm. Cable 1 m.

V		Code
24 V - (0-10V) - 6,5 mm - VA64	1	A564P30001C

VA7481

Electric actuator for balancing valve 91 - 92 - 93 Series. Floating version.

Features: Adaptor not included
Art. 0A7010 for EvoPICV 91 Series / Dynasty 92 (1/2" - 3/4") Series
Art. 0A748X for EvoPICV 93 Series / Dynasty 92 (1" - 1 1/4") Series

V		Code
24 V	1	6400700180C
230 V	1	6400800190C

VA7482

Electric actuator for balancing valve 91 - 93 Series. Proportional version.

Features: Adaptor not included
Art. 0A7010 for EvoPICV 91 Series
Art. 0A748X for EvoPICV 93 Series

V		Code
24V - (0-10V) - 3.2 mm	1	6400800320C
24V - (0-10V) - 6.3 mm	1	6400800330C

VA7482-A

Electric actuator for balancing valve 91 - 92 - 93 Series. Proportional version, autostroke.

Features: Adaptor not included
Art. 0A7010 for EvoPICV 91 Series / Dynasty 92 (1/2" - 3/4") Series
Art. 0A748X for EvoPICV 93 Series / Dynasty 92 (1" - 1 1/4") Series

V		Code
24V - (0-10V) - max 6.3 mm - IP54	1	6400800410C

VA7483

Electric actuator for balancing valve 91 - 92 - 93 Series. Proportional version, autostroke with feedback.

Features: Adaptor not included
Art. 0A7010 for EvoPICV 91 Series / Dynasty 92 (1/2" - 3/4") Series
Art. 0A748X for EvoPICV 93 Series / Dynasty 92 (1" - 1 1/4") Series

V		Code
24V - (0-10V) - max 6.3 mm - IP54	1	6400800340C

VA7484

Electric actuator for balancing valve 91 - 92 - 93 Series. Proportional version, autostroke with feedback and fail safe.

Features: Configurator for specific setup art. 0C74874 (not included)
Adaptor art. 0A7010 for 91 Series / 92 (1/2" - 3/4") Series (not included)
Adaptor art. 0A748X for 93 Series / 92 (1" - 1 1/4") Series (not included)

V		Code
24V - (0-10V) - max 6.3 mm - IP54	1	6400800360C

VA7493

Electromotive actuator for balancing valve 92H 1 1/2". Proportional version 0 - 10 V. Equipped with valve stroke detection system and feedback (0-10V DC) to verify the position of the actuator at every moment.
Adaptor included

V		Code
24V - (0-10V) - max 8.7 mm - IP54	1	6400800240C

VM060

Electromotive actuator for balancing valve 91 - 93 Series and Dynasty 92 Series.
Proportional version 0 - 10 V.
Features: Adaptor included. Fail safe and feedback 0 - 10V

V		Code
24 V - (0 -10V)	1	6400800290C

VM000

Electromotive actuator for balancing valve 91 - Dynasty 92 - 93 Series.
Proportional version 0 - 10 V.
Features: Adaptor 76TE included. Feedback signal options

V		Code
24 V - (0 -10V)	1	6400900290C

RVAZ2

Electromotive actuator floating (3 points) or ON/OFF actuator to drive Pettinaroli PICV 92 series.
Equipped with stroke detection system.

Features: Adaptor not included. Art. 0A748X for 92 Series

V		Code
24V - max 8.5 mm - IP54	1	6400800390C
120V-230V - max 8.5 mm - IP54	1	6400800370C

RVAZ2C

Electromotive proportional actuator (input signal 0(2)-10-V DC-/-0(4)-20-mA) to drive Pettinaroli's PICV 92 series.
Equipped with valve stroke detection system, feedback signal (0-10 V DC) to verify the position of the actuator at every moment.
Features: Adaptor not included. Art. 0A748X for 92 Series

V		Code
24 V - (0 -10V) - max 8.5 mm - IP54	1	6400800380C

0A748X

Adaptor for 92 (1" - 1 1/4") and 93 series

Ø"	Code
M28 x M30	7403110040C

0A7010

Adaptor for 91 series and 92 (1/2" - 3/4") series.

Ø"	Code
M28 x M30	7403110030C

0C7484

Encoder for configuration change of VA7484

Code
6400000000C

SN08

Electromotive actuator for EvoPICV 81 - 83 Series, floating control version.
Features: linkage bracket included.
8 Nm operating torque

V		Code
24 V	1	6402410000C
230 V - 110 V	1	6402410010C

SN08CC

Electromotive actuator for EvoPICV 81 - 83 series, proportional control version.
Features: linkage bracket included.
8 Nm operating torque

V		Code
24 V - (0-10V)	1	6402410020C
100...240 V - (0-10V)	1	6402410040C

VA9208

Electromotive actuator for 83 series.
Features: ON/OFF control. Spring return option

V		Code
24 V	1	6400800250C
230 V	1	6400800260C

VA9208C

Electromotive actuator for EvoPICV 83 Series.
Features: Proportional control 0 -10V. Spring return option

V		Code
24 V - (0-10V)	1	6400800270C

M94F2

Actuator for EvoPICV 94F / 95F 2" - 10".

Ø"		Code
M94F2 - 2" 20000 l/h	1	6405000301C
M94F2 - 2 1/2" 20000 l/h	1	6407100301C
M94F2 - 2 1/2" 30000 l/h	1	6407000301C
M94F2 - 3" 30000 l/h	1	6408000301C
M94F2 - 4" 55000 l/h	1	6410000301C
M94F2 - 5" 90000 l/h	1	6412500301C
M94F2 - 5" 120000 l/h	1	6412600301C
M94F2 - 6" 90000 l/h	1	6415000301C
M94F2 - 6" 150000 l/h	1	6415100301C
M94F2 - 8" 200000 l/h	1	6420000301C
M94F2 - 8" 300000 l/h	1	6420100301C
M94F2 - 10" 300000 l/h	1	6425000301C
M94F2 - 10" 500000 l/h	1	6425100301C

M94FC

Fail safe device for M94F2 actuator.

		Code
	1	8000000200C

Actuators chart

THERMOELECTRIC ACTUATORS

Code	Voltage	Stroke	for PICV series	Note
V542O2	230V	4 mm	91 / 92 (1/2"-3/4") / 92X	with adapter and 1 meter long cable included
V544O2	24V	4 mm	91 / 92 (1/2"-3/4") / 92X	with adapter and 1 meter long cable included

Code	Voltage	Stroke	for PICV series	Note
A54202	230V	4 mm	91 / 92 (1/2"-3/4") / 92X	with adapter and 1 meter long cable included
A54204	230V	4 mm	91 / 92 (1/2"-3/4") / 92X	with adapter and 1 meter long cable included Micro auxiliary 4-wire
A54402	24V	4 mm	91 / 92 (1/2"-3/4") / 92X	with adapter and 1 meter long cable included
A54404	24V	4 mm	91 / 92 (1/2"-3/4") / 92X	with adapter and 1 meter long cable included Micro auxiliary 4-wire
A55102	120V	5 mm	91 / 92 (1/2"-3/4") / 92X	with adapter and 1 meter long cable included
A56102	120V	6,5 mm	93 / 92 (1" y 1 1/4")	with adapter and 1 meter long cable included
A56202	230V	6,5 mm	93 / 92 (1" y 1 1/4")	with adapter and 1 meter long cable included
A56402	24V	6,5 mm	93 / 92 (1" y 1 1/4")	with adapter and 1 meter long cable included

Code	Voltage	Stroke	for PICV series	Note
A544P3	0-10V	4 mm	91 / 92 (1/2"-3/4") / 92X	Proportional actuator 24V (0-10V) with adapter and 1 meter long cable included
A564P3	0-10V	6,5 mm	93 / 92 (1" y 1 1/4")	Proportional actuator 24V (0-10V) with adapter and 1 meter long cable included

Code	Voltage	Stroke	for PICV series	Note
MT54102	115V	4 mm	91 / 92 (1/2"-3/4") / 92X	adapter included

Actuators chart

ELECTROMECHANICAL ACTUATORS

Code	Voltage	Stroke	for PICV series	Note
VA7481	24V	6,3 mm	91 / 92X / 93 92 (except 1 1/2")	Electric actuator, 3 points. Adapter not included Art. 0A7010 for 91 / 92 series (1/2" - 3/4") Art. 0A748X for 92 (1" - 1 1/4") - 93 series
VA7481	230V	6,3 mm	91 / 92X / 93 92 (except 1 1/2")	Electric actuator, 3 points. Adapter not included Art. 0A7010 for 91 / 92 series (1/2" - 3/4") Art. 0A748X for 92 (1" - 1 1/4") - 93 series
VA7482	0-10V	3,2 mm	91	Electric actuator, 3 points. Adapter not included Art. 0A7010 for 91 series
VA7482	0-10V	6,3 mm	93	Electric actuator, 3 points. Adapter not included Art. 0A748X for 93 series
VA7482-A	0-10V	6,3 mm	91 / 92X / 93 92 (except 1 1/2")	Electric actuator, proportional. Adapter not included Art. 0A7010 for 91 / 92 series (1/2" - 3/4") Art. 0A748X for 92 (1" - 1 1/4") - 93 series
VA7483	0-10V	6,3 mm	91 / 92X / 93 92 (except 1 1/2")	Electric actuator, proportional. Adapter not included Art. 0A7010 for 91 / 92 series (1/2" - 3/4") Art. 0A748X for 92 (1" - 1 1/4") - 93 series
VA7484	0-10V	6,3 mm	91 / 92X / 93 92 (except 1 1/2")	Electric actuator, proportional. Adapter not included Art. 0A7010 for 91 / 92 series (1/2" - 3/4") Art. 0A748X for 92 (1" - 1 1/4") - 93 series
VA7493	0-10V	8,5 mm	92 (1 1/2")	Electric actuator, proportional. Adapter included

Code	Voltage	Stroke	for PICV series	Note
VM060	0-10V	6,5 mm	91 / 92X / 93 92 (except 1 1/2")	Control valve stroke recognition system. Proportional actuator 0-10V, fail safe and feedback signal with adapter included.
VM000	0-10V	6,5 mm	91 / 92X / 93 92 (except 1 1/2")	Control valve stroke recognition system. Proportional actuator 0-10V, fail safe and feedback signal with adapter included.

Code	Voltage	Stroke	for PICV series	Note
RVAZ2	24V	8,7 mm	92 (from 1/2" to 2")	Electromotive actuator floating (3 points) or ON/OFF actuator to drive Pettinaroli PICV 92 series. Equipped with stroke detection system. Adaptor not included. Art. 0A748X for 92 Series
RVAZ2	120V - 230V	8,7 mm	92 (from 1/2" to 2")	Electromotive actuator floating (3 points) or ON/OFF actuator to drive Pettinaroli PICV 92 series. Equipped with stroke detection system. Adaptor not included. Art. 0A748X for 92 Series
RVAZ2C	0-10V	8,7 mm	92 (from 1/2" to 2")	Electromotive proportional actuator (input signal 0(2)-10-V DC-/-0(4)-20-mA) to drive Pettinaroli PICV 92 series. Equipped with valve stroke detection system, feedback signal (0-10 V DC) Adaptor not included. Art. 0A748X for 92 Series

Code	Voltage	Stroke	for PICV series	Note
SN08	24V	0° - 90°	81 / 83	Electromechanical rotary actuator with 3-point floating control. Support included - Nm 8. With flow reduction through angular limiting system.
SN08	230-110V	0° - 90°	81 / 83	Electromechanical rotary actuator with 3-point floating control. Support included - Nm 8. With flow reduction through angular limiting system.
SN08CC	24 V - (0-10V)	0° - 90°	81 / 83	Electromechanical rotary actuator with 3-point floating control. Support included - Nm 8. With flow reduction through angular limiting system.
SN08CC	100...240V (0-10V)	0° - 90°	81 / 83	Electromechanical rotary actuator with 3-point floating control. Support included - Nm 8. With flow reduction through angular limiting system.

Code	Voltage	Stroke	for PICV series	Note
VA9208	24V	0° - 95°	81 / 83	Electromechanical rotary actuator. On/off control. Spring return
VA9208	230V	0° - 95°	81 / 83	Electromechanical rotary actuator. On/off control. Spring return
VA9208C	24 V - (0-10V)	0° - 95°	81 / 83	Electromechanical rotary actuator. On/off control. Spring return. Proportional control.

HYDRONIC
kits

PCS
Pettinaroli Commissioning Solutions

Pettinaroli Commissioning Solutions

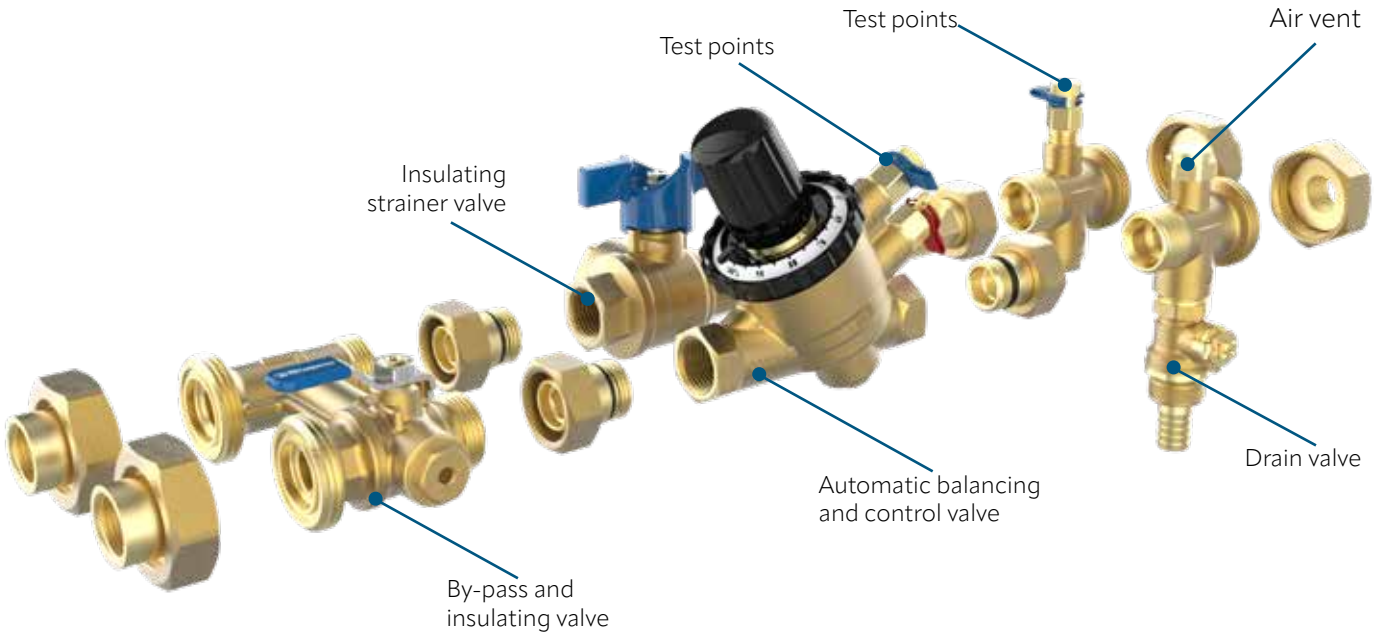
Pettinaroli's versatile range of **valve assemblies for fan coils, chilled beams and other hydronic terminal units** offers significant **benefits over standard products** - for consultants, contractors, commissioning engineers and building operators / owners.

The valve assembly is a **modular approach** to meeting the flushing, flow balancing, isolation, and temperature control requirements of each terminal unit.

Pettinaroli's pre-fabricated valve assemblies ensure that **everything required** for a successful connection is **supplied in one package**. Furthermore, off-site assembly and testing **reduces site time and virtually eliminates costly failures**.

Units are available in manual/automatic/pressure independent characterised control valves, offering **different levels of functionality to meet the needs and budgets of each project**, whilst sharing the high quality that is synonymous with the Pettinaroli name.

TECHNICAL SPECIFICATIONS



√ **CONNECTING KIT** FOR TERMINAL UNITS (fan-coils, chilled beams and air handling units)

√ **REDUCED ON-SITE LABOUR TIME**

√ FACTORY TESTED FOR **MINIMUM LEAKEAGE RISK**

√ **100% MADE IN ITALY** WITH PATENTED TECHNOLOGY

√ **FLEXIBLE AND BESPOKEN** CONFIGURATION (automatic, manual balancing)

√ **NO FLUSHING THRU CONTROL VALVE** (100% safe)

XT600

PCS Flushing by-pass (60 mm / 40 mm centre-to-centre) with EvoPICV 91 Series and FilterBall strainer / shut-off valve.
Insulating case: Available

Ø"		Code
1/2" X 150 l/h (0,66 GPM)	1	6201510011C
1/2" X 600 l/h (2,64 GPM)	1	6201510010C
1/2" X 780 l/h (3,43 GPM)	1	6201510012C

Available in NPT version

XT601

PCS preassembled valve kit, flushing by-pass (60 mm / 40 mm centre-to-centre) with EvoPICV 91 Series and FilterBall strainer / shut-off valve.
Features: coil connection set with drain-off valve and additional PT port included. Insulating case: Available

Ø"		Code
1/2" X 150 l/h (0,66 GPM)	1	6201510002C
1/2" X 600 l/h (2,64 GPM)	1	6201510000C
1/2" X 780 l/h (3,43 GPM)	1	6201510001C

Available in NPT version

XT600G

PCS Flushing by-pass (60 mm / 40 mm centre-to-centre) with EvoPICV 91 Series and FilterBall strainer / shut-off valve.
Insulating case: Included

Ø"		Code
1/2" X 150 l/h (0,66 GPM)	1	6201510019C
1/2" X 600 l/h (2,64 GPM)	1	6201510017C
1/2" X 780 l/h (3,43 GPM)	1	6201510018C

Available in NPT version

XT601G

PCS preassembled valve kit, flushing by-pass (60 mm / 40 mm centre-to-centre) with EvoPICV 91 Series and FilterBall strainer / shut-off valve.
Features: coil connection set with drain-off valve and additional PT port included. Insulating case: Included

Ø"		Code
1/2" X 150 l/h (0,66 GPM)	1	
1/2" X 600 l/h (2,64 GPM)	1	6201510013C
1/2" X 780 l/h (3,43 GPM)	1	

Available in NPT version

General technical specifications	
Pipe centres	60/40 mm
Nominal flow rate from	150 l/h to 780 l/h
Connections	1/2" F x 1/2" F
Filtering capacity	700 µm

General technical specifications	
Pipe centres	60/40 mm
Nominal flow rate from	150 l/h to 780 l/h
Connections	1/2" double union end connections x 1/2" F
Filtering capacity	700 µm

XT700

PCS preassembled valve kit, flushing by-pass (70 mm centre-to-centre) with EvoPICV 91 Series PICV, FilterBall strainer / shut-off valve.
Insulating case: Available

Ø"		Code
1/2" X 150 l/h (0,66 GPM)	1	6201510710C
1/2" X 600 l/h (2,64 GPM)	1	6201510700C
1/2" x 780 l/h (3,43 GPM)	1	6201510720C
3/4" x 1000 l/h (4,40 GPM)	1	6202210700C
3/4" x 1500 l/h (6,60 GPM)	1	6202210710C

Available in NPT version

XT701

PCS preassembled valve kit, flushing by-pass (70 mm centre-to-centre) with EvoPICV 91 Series PICV, FilterBall strainer / shut-off valve.
Features: Coil connection set with drain-off valve and additional PT port.
Insulating case: Available

Ø"		Code
1/2" X 150 l/h (0,66 GPM)	1	6201510790C
1/2" X 600 l/h (2,64 GPM)	1	6201510730C
1/2" x 780 l/h (3,43 GPM)	1	6201510740C
3/4" x 1000 l/h (4,40 GPM)	1	6202010780C
3/4" x 1500 l/h (6,60 GPM)	1	

Available in NPT version

XT700G

PCS preassembled valve kit, flushing by-pass (70 mm centre-to-centre) with EvoPICV 91 Series PICV, FilterBall strainer / shut-off valve.
Insulating case: Included

Ø"		Code
1/2" X 150 l/h (0,66 GPM)	1	6201510711C
1/2" X 600 l/h (2,64 GPM)	1	6201510701C
1/2" x 780 l/h (3,43 GPM)	1	6201510721C
3/4" x 1000 l/h (4,40 GPM)	1	
3/4" x 1500 l/h (6,60 GPM)	1	6202210711C

Available in NPT version

XT701G

PCS preassembled valve kit, flushing by-pass (70 mm centre-to-centre) with EvoPICV 91 Series PICV, FilterBall strainer / shut-off valve.
Features: Coil connection set with drain-off valve and additional PT port.
Insulating case: Included

Ø"		Code
1/2" X 150 l/h (0,66 GPM)	1	6201510791C
1/2" X 600 l/h (2,64 GPM)	1	6201510731C
1/2" x 780 l/h (3,43 GPM)	1	6201510741C
3/4" x 1000 l/h (4,40 GPM)	1	6202010780C
3/4" x 1500 l/h (6,60 GPM)	1	6202011000C

Available in NPT version

General technical specifications	
Pipe centres	70 mm
Nominal flow rate from	150 l/h to 1500 l/h
Connections	1/2" F x 1/2" union end connections 3/4" F x 3/4" union end connections
Filtering capacity	700 µm

General technical specifications	
Pipe centres	70 mm
Nominal flow rate from	150 l/h to 1500 l/h
Connections	1/2" double union end connections 3/4" double union end connections
Filtering capacity	700 µm

XT702

PCS preassembled valve kit, flushing by-pass (70 mm centre-to-centre) with Dynasty 92 Series PICV, FilterBall strainer / shut-off valve.
Insulating case: Available

Ø"		Code
1/2" X 150 l/h (0,66 GPM)	1	6201510750C
1/2" X 450 l/h (1,98 GPM)	1	6201510760C
1/2" X 850 l/h (3,74 GPM)	1	6201510770C
3/4" X 1000 l/h (4,40 GPM)	1	6202010750C
3/4" X 1850 l/h (8,15 GPM)	1	6202010760C
3/4" F X 1" F X 2500 l/h (11,01 GPM)	1	6202510830C
3/4" F X 1" F X 3300 l/h (14,53 GPM)	1	6202510770C

Available in NPT version

XT704

PCS preassembled valve kit, flushing by-pass (70 mm centre-to-centre) with Dynasty 92 Series PICV and FilterBall shut off valve.
Features: Coil connection set with drain-off valve and additional PT port.
Insulating case: Available

Ø"		Code
1/2" X 150 l/h (0,66 GPM)	1	
1/2" X 450 l/h (1,98 GPM)	1	6201510820C
1/2" X 850 l/h (3,74 GPM)	1	6201510870C
3/4" X 1000 l/h (4,40 GPM)	1	
3/4" X 1850 l/h (8,15 GPM)	1	
1" X 2500 l/h (11,01 GPM)	1	
1" X 3300 l/h (14,53 GPM)	1	

Available in NPT version

XT702G

PCS preassembled valve kit, flushing by-pass (70 mm centre-to-centre) with Dynasty 92 Series PICV, FilterBall strainer / shut-off valve.
Insulating case: Included

Ø"		Code
1/2" X 150 l/h (0,66 GPM)	1	6201510751C
1/2" X 450 l/h (1,98 GPM)	1	6201510762C
1/2" X 850 l/h (3,74 GPM)	1	6201510772C
3/4" X 1000 l/h (4,40 GPM)	1	6202010752C
3/4" X 1850 l/h (8,15 GPM)	1	6202010762C
3/4" F X 1" F X 2500 l/h (11,01 GPM)	1	6202510831C
3/4" F X 1" F X 3300 l/h (14,53 GPM)	1	6202510771C

Available in NPT version

General technical specifications	
Pipe centres	70 mm
Nominal flow rate from	150 l/h to 3300 l/h
Connections	1/2" F x 1/2" union end connections 3/4" F x 3/4" union end connections 3/4" F x 1" union end connections
Filtering capacity	700 µm

XT704G

PCS preassembled valve kit, flushing by-pass (70 mm centre-to-centre) with Dynasty 92 Series PICV and FilterBall shut off valve.
Features: Coil connection set with drain-off valve and additional PT port.
Insulating case: Included

Ø"		Code
1/2" X 150 l/h (0,66 GPM)	1	6201510991C
1/2" X 450 l/h (1,98 GPM)	1	6201510821C
1/2" X 850 l/h (3,74 GPM)	1	6201510871C
3/4" X 1000 l/h (4,40 GPM)	1	6202011011C
3/4" X 1850 l/h (8,15 GPM)	1	6202010871C
1" X 2500 l/h (11,01 GPM)	1	6202510921C
1" X 3300 l/h (14,53 GPM)	1	6202510931C

Available in NPT version

General technical specifications	
Pipe centres	70 mm
Nominal flow rate from	150 l/h to 3300 l/h
Connections	1/2" double union end connections 3/4" double union end connections 1" double union end connections
Filtering capacity	700 µm

XT702P

XT702P

PCS preassembled valve kit, flushing by-pass (70 mm centre-to-centre) with Dynasty 92 Series PICV, FilterBall strainer / shut-off valve.
Insulating case: Included

Ø"		Code
1/2" X 150 l/h (0,66 GPM)	1	6201510752C
1/2" X 450 l/h (1,98 GPM)	1	6201510763C
1/2" X 850 l/h (3,74 GPM)	1	6201510773C
3/4" X 1000 l/h (4,40 GPM)	1	6202010753C
3/4" X 1850 l/h (8,15 GPM)	1	6202010763C

General technical specifications	
Pipe centres	70 mm
Nominal flow rate from	150 l/h a 1850 l/h
Connections	1/2" F x 1/2" double union end connections 3/4" F x 3/4" double union end connections
Filtering capacity	700 µm

X702GA

PCS preassembled valve kit, flushing by-pass (70 mm centre-to-centre) with Dynasty 92 Series PICV, FilterBall strainer / shut-off valve.
Insulating case and flexible hoses: Included

Ø"		Code
1/2" X 150 l/h (0,66 GPM)	1	0000000364C
1/2" X 450 l/h (1,98 GPM)	1	0000000356C
1/2" X 850 l/h (3,74 GPM)	1	0000000365C
3/4" X 1000 l/h (4,40 GPM)	1	0000000355C
3/4" X 1850 l/h (8,15 GPM)	1	0000000366C
3/4" F X 1" F X 2500 l/h (11,01 GPM)	1	0000000384C
3/4" F X 1" F X 3300 l/h (14,53 GPM)	1	0000000386C

General technical specifications	
Pipe centres	70 mm
Nominal flow rate from	150 l/h to 3300 l/h (0,66 GPM to 14,53 GPM)
Connections	1/2" H x 1/2" double union end connections 3/4" H x 3/4" double union end connections 3/4" H x 1" double union end connections
Filtering capacity	700 µm
Flexible Male X Female length	300 mm from 150 l/h to 1850 l/h 350 mm from 2500 l/h to 3300 l/h

XT716

PCS preassembled valve kit, flushing by-pass (70 mm centre-to-centre) with Dynasty 92 Series PICV, FilterBall strainer / shut-off valve, venturi adapter and pressure ports

Ø"		Code
1/2" X 150 l/h (0,66 GPM) - Kvs 0,37	1	
1/2" X 450 l/h (1,98 GPM) - Kvs 1,38	1	
1/2" X 850 l/h (3,74 GPM) - Kvs 2,28	1	
3/4" X 1000 l/h (4,40 GPM) - Kvs 3,37	1	
3/4" X 1850 l/h (8,15 GPM) - Kvs 4,7	1	
1" X 3/4" X 2500 l/h (11,01 GPM) - Kvs 6	1	

XT716G

PCS preassembled valve kit, flushing by-pass (70 mm centre-to-centre) with Dynasty 92 Series PICV, FilterBall strainer / shut-off valve, venturi adapter and pressure ports. Insulating case: Included.

Ø"		Code
1/2" X 150 l/h (0,66 GPM) - Kvs 0,37	1	
1/2" X 450 l/h (1,98 GPM) - Kvs 1,38	1	
1/2" X 850 l/h (3,74 GPM) - Kvs 2,28	1	0000000463C
3/4" X 1000 l/h (4,40 GPM) - Kvs 3,37	1	
3/4" X 1850 l/h (8,15 GPM) - Kvs 4,7	1	
1" X 3/4" X 2500 l/h (11,01 GPM) - Kvs 6	1	

General technical specifications	
Pipe centres	70 mm
Nominal flow rate from	150 l/h to 2500 l/h (0,66 GPM to 11,01 GPM)
Kvs	0,37 a 6
Filtering capacity	700 µm

XT800

PCS preassembled valve kit, flushing by-pass (80 mm centre-to-centre) with EvoPICV 91 Series and FilterBall strainer / shut-off valve.
Insulating case: Available

Ø"		Code
1/2" X 150 l/h (0,66 GPM)	1	
1/2" X 600 l/h (2,64 GPM)	1	
1/2" X 780 l/h (3,43 GPM)	1	6201510600C
3/4" X 1000 l/h (4,40 GPM)	1	6202010600C
3/4" X 1500 l/h (6,60 GPM)	1	6202010601C

Available in NPT version

XT801

PCS flushing by-pass (80 mm centre-to-centre) with EvoPICV 91 Series and FilterBall strainer / shut-off valve.
Features: Coil connection set with drain-off valve and additional PT port.
Insulating case: Available

Ø"		Code
3/4" X 600 l/h (2,64 GPM)	1	6202010055C
3/4" X 780 l/h (3,43 GPM)	1	6202010056C
3/4" X 1000 l/h (4,40 GPM)	1	6202010050C
3/4" X 1500 l/h (6,60 GPM)	1	6202010051C

Available in NPT version

XT800G

PCS preassembled valve kit, flushing by-pass (80 mm centre-to-centre) with EvoPICV 91 Series and FilterBall strainer / shut-off valve.
Insulating case: Included

Ø"		Code
1/2" X 150 l/h (0,66 GPM)	1	
1/2" X 600 l/h (2,64 GPM)	1	
1/2" X 780 l/h (3,43 GPM)	1	
3/4" X 1000 l/h (4,40 GPM)	1	6202010610C
3/4" X 1500 l/h (6,60 GPM)	1	6202010611C

Available in NPT version

General technical specifications	
Pipe centres	80 mm
Nominal flow rate from	150 l/h to 1500 l/h
Connections	1/2" F x 1/2" union end connections 3/4" F x 3/4" union end connections
Filtering capacity	700 µm

XT801G

PCS flushing by-pass (80 mm centre-to-centre) with EvoPICV 91 Series and FilterBall strainer / shut-off valve.
Features: Coil connection set with drain-off valve and additional PT port.
Insulating case: Included

Ø"		Code
3/4" X 600 l/h (2,64 GPM)	1	
3/4" X 780 l/h (3,43 GPM)	1	
3/4" X 1000 l/h (4,40 GPM)	1	6202010054C
3/4" X 1500 l/h (6,60 GPM)	1	6202010052C

Available in NPT version

General technical specifications	
Pipe centres	80 mm
Nominal flow rate from	600 l/h to 1500 l/h
Connections	3/4" double union end connections
Filtering capacity	700 µm

XT850

PCS flushing by-pass (80 mm centre-to-centre) with EvoPICV 93 Series and FilterBall strainer / shut-off valve.
Insulating case: Available

Ø"		Code
1" X 3/4" X 2200 l/h (9,69 GPM)	1	6202510651C
1" X 3/4" X 2700 l/h (11,89 GPM)	1	6202510652C
1" X 3/4" X 3000 l/h (13,21 GPM)	1	6202510653C

Available in NPT version

XT851

PCS flushing by-pass (80 mm centre-to-centre) with EvoPICV 93 Series and FilterBall strainer / shut-off valve.
Features: Coil connection set with drain-off valve and additional PT port.
Insulating case: Available

Ø"		Code
1" X 1" 2200 l/h (9,69 GPM)	1	6202510701C
1" X 1" 2700 l/h (11,89 GPM)	1	6202510700C
1" X 1" 3000 l/h (13,21 GPM)	1	6202510702C

Available in NPT version

XT850G

PCS flushing by-pass (80 mm centre-to-centre) with EvoPICV 93 Series and FilterBall strainer / shut-off valve.
Insulating case: Available

Ø"		Code
1" X 3/4" X 2200 l/h (9,69 GPM)	1	
1" X 3/4" X 2700 l/h (11,89 GPM)	1	
1" X 3/4" X 3000 l/h (13,21 GPM)	1	

Available in NPT version

General technical specifications	
Pipe centres	80 mm
Nominal flow rate from	2200 l/h to 3000 l/h
Connections	1" F x 3/4" union end connection
Filtering capacity	700 µm

XT851G

PCS flushing by-pass (80 mm centre-to-centre) with EvoPICV 93 Series and FilterBall strainer / shut-off valve.
Features: Coil connection set with drain-off valve and additional PT port.
Insulating case: Available

Ø"		Code
1" X 1" 2200 l/h (9,69 GPM)	1	6202510711C
1" X 1" 2700 l/h (11,89 GPM)	1	6202510710C
1" X 1" 3000 l/h (13,21 GPM)	1	6202510705C

Available in NPT version

General technical specifications	
Pipe centres	80 mm
Nominal flow rate from	2200 l/h to 3000 l/h
Connections	1" double union end connection
Filtering capacity	700 µm

XT1300

PCS preassembled valve kit (130 mm centre-to-centre) flushing by-pass, EvoPICV 91 Series PICV, FilterBall strainer / shut-off valve.
Insulating case: Available on request

Ø"		Code
1/2" X 1/2" X 150 l/h (0,66 GPM)	1	6201510110C
1/2" X 1/2" X 600 l/h (2,64 GPM)	1	6201510100C
1/2" X 1/2" X 780 l/h (3,43 GPM)	1	
3/4" X 3/4" X 1000 l/h (4,40 GPM)	1	
3/4" X 3/4" X 1500 l/h (6,60 GPM)	1	
1" X 3/4" X 2200 l/h (9,69 GPM)	1	
1" X 3/4" X 2700 l/h (11,89 GPM)	1	
1" X 3/4" X 3000 l/h (13,21 GPM)	1	

XT1303

PCS preassembled valve kit (130 mm centre-to-centre) flushing by-pass, EvoPICV 91 Series PICV, FilterBall strainer / shut-off valve.
Insulating case: Available on request

Ø"		Code
1/2" X 1/2" X 150 l/h (0,66 GPM)	1	
1/2" X 1/2" X 600 l/h (2,64 GPM)	1	6201710400C
1/2" X 1/2" X 780 l/h (3,43 GPM)	1	6201810400C
3/4" X 3/4" X 1000 l/h (4,40 GPM)	1	
3/4" X 3/4" X 1500 l/h (6,60 GPM)	1	
1" X 3/4" X 2200 l/h (9,69 GPM)	1	
1" X 3/4" X 2700 l/h (11,89 GPM)	1	
1" X 3/4" X 3000 l/h (13,21 GPM)	1	

General technical specifications	
Pipe centres	130 mm
Nominal flow rate from	150 l/h to 3000 l/h
Connections	1/2" x 1/2" - 3/4" x 3/4" - 1" x 3/4"
Filtering capacity	700 µm

KIT FOR AHU

XT880

PCS preassembled valve kit, flushing by-pass (80 mm centre-to-centre) with Dynasty 92 Series DN25 PICV, FilterBall strainer / shut-off valve.
Insulating case: Available

Ø"		Code
3/4" F X 1" F X 2500 l/h (11,01 GPM)	1	6202510656C
3/4" F X 1" F X 3300 l/h (14,53 GPM)	1	
1" F X 1" F X 5200 l/h (22,89 GPM)	1	

Available in NPT version

XT881

PCS preassembled valve kit, flushing by-pass (80 mm centre-to-centre) with Dynasty 92 Series DN25 PICV and FilterBall shut off valve.
Features: Coil connection set with drain-off valve and additional PT port.
Insulating case: Available

Ø"		Code
1" F X 1" F X 2500 l/h (11,01 GPM)	1	
1" F X 1" F X 3300 l/h (14,53 GPM)	1	

Available in NPT version

XT880G

PCS preassembled valve kit, flushing by-pass (80 mm centre-to-centre) with Dynasty 92 Series DN25 PICV, FilterBall strainer / shut-off valve.
Insulating case: Included

Ø"		Code
3/4" F X 1" F X 2500 l/h (11,01 GPM)	1	
3/4" F X 1" F X 3300 l/h (14,53 GPM)	1	
1" F X 1" F X 5200 l/h (22,89 GPM)	1	6202510657C

Available in NPT version

XT881G

PCS preassembled valve kit, flushing by-pass (80 mm centre-to-centre) with Dynasty 92 Series DN25 PICV and FilterBall shut off valve.
Features: Coil connection set with drain-off valve and additional PT port.
Insulating case: Included

Ø"		Code
1" F X 1" F X 2500 l/h (11,01 GPM)	1	
1" F X 1" F X 3300 l/h (14,53 GPM)	1	

Available in NPT version

General technical specifications	
Pipe centres	80 mm
Nominal flow rate from	2500 l/h to 5200 l/h
Connections	3/4" F x 1" union end connections
Filtering capacity	700 µm

General technical specifications	
Pipe centres	80 mm
Nominal flow rate from	2500 l/h to 3300 l/h
Connections	1" double union end connections
Filtering capacity	700 µm

XT1694

PCS preassembled valve kit, flushing by-pass with Dynasty 92 Series PICV, FilterBall strainer / shut-off valve.
Insulating case: Available

Ø"		Code
1 1/2" X 1 1/2" x 9000 l/h (39,62 GPM)	1	6204011080C

Available in NPT version

XT1695

PCS preassembled valve kit, flushing by-pass with Dynasty 92 Series PICV and FilterBall shut off valve.
Features: Coil connection set with drain-off valve and additional PT port.
Insulating case: Available

Ø"		Code
1 1/2" X 1 1/2" x 9000 l/h (39,62 GPM)	1	

Available in NPT version

XT1694G

PCS preassembled valve kit, flushing by-pass with Dynasty 92 Series PICV, FilterBall strainer / shut-off valve.
Insulating case: Included

Ø"		Code
1 1/2" X 1 1/2" x 9000 l/h (39,62 GPM)	1	6204011081C

Available in NPT version

XT1695G

PCS preassembled valve kit, flushing by-pass with Dynasty 92 Series PICV and FilterBall shut off valve.
Features: Coil connection set with drain-off valve and additional PT port.
Insulating case: Included

Ø"		Code
1 1/2" X 1 1/2" x 9000 l/h (39,62 GPM)	1	

Available in NPT version

General technical specifications	
Pipe centres	169 mm
Nominal flow rate from	9000 l/h (39,62 GPM)
Connections	1 1/2" F X 1 1/2" F
Filtering capacity	700 µm

General technical specifications	
Pipe centres	169 mm
Nominal flow rate from	9000 l/h (39,62 GPM)
Connections	1 1/2" F X 1 1/2" F
Filtering capacity	700 µm

XT1680

168 mm flushing by-pass with pressure independent control valve 83 series and FilterBall strainer

Ø"		Code
1 1/4" X 1 1/4" x 6000 l/h (26,41 GPM)	1	0000000376C

XT1681

168 mm flushing by-pass with pressure independent control valve 83 series and FilterBall strainer. PT port, air vent and blow down valve.

Ø"		Code
1 1/4" X 1 1/4" x 6000 l/h (26,41 GPM)	1	

XT1682

168 mm flushing by-pass with pressure independent control valve 83 series and FilterBall strainer. PT port

Ø"		Code
1 1/4" X 1 1/4" x 6000 l/h (26,41 GPM)	1	0000000372C

General technical specifications	
Pipe centres	168 mm
Nominal flow rate from	6000 l/h (26,41 GPM)
Connections	1 1/4" F X 1 1/4" F
Filtering capacity	700 µm

XT1690

169 mm flushing by-pass with pressure independent control valve 83 series and FilterBall strainer

Ø"		Code
1 1/2" X 1 1/2" x 9000 l/h (39,62 GPM)	1	0000000374C

XT1691

168 mm flushing by-pass with pressure independent control valve 83 series and FilterBall strainer. PT port, air vent and blow down valve.

Ø"		Code
1 1/2" X 1 1/2" x 9000 l/h (39,62 GPM)	1	0000000374C

General technical specifications	
Pipe centres	169 mm
Nominal flow rate from	9000 l/h (39,62 GPM)
Connections	1 1/2" F X 1 1/2" F
Filtering capacity	700 µm

XT2070

207 mm flushing by-pass with pressure independent control valve 83 series and FilterBall strainer

Ø"		Code
2" X 2" x 11000 l/h (48,43 GPM)	1	0000000427C
2" X 2" x 12000 l/h (52,83 GPM)	1	0000000429C
2" X 2" x 18000 l/h (79,25 GPM)	1	0000000430C

Available in NPT version

XT2071

168 mm flushing by-pass with pressure independent control valve 83 series and FilterBall strainer. PT port, air vent and blow down valve.

Ø"		Code
2" X 2" x 11000 l/h (48,43 GPM)	1	
2" X 2" x 12000 l/h (52,83 GPM)	1	
2" X 2" x 18000 l/h (79,25 GPM)	1	

Available in NPT version

General technical specifications	
Pipe centres	207 mm
Nominal flow rate from	11000 l/h TO 18000 l/h (48,43 GPM TO 79,25 GPM)
Connections	2" X 2"
Filtering capacity	700 µm

PETTINAROLI

DATA CENTER SOLUTIONS

HYDRONIC kits

OUR STRENGTHS

Energy saving

√ Widest range of PICVs: from 150 l/h up to 500.000 l/h
√ Optimal cooling power control
√ Low start-up pressure
√ Pump head optimisation

Easy system commissioning and maintenance

√ Flushing by-pass for pipes cleaning
√ Easy flow rate setting through the PICV
√ Dry strainer cleaning of Filterball®
√ Improved system reliability
√ Less maintenance required

System control

√ Pressure and Temperature gauges integrated
√ Valve test points
√ Full authority – always the least flow rate

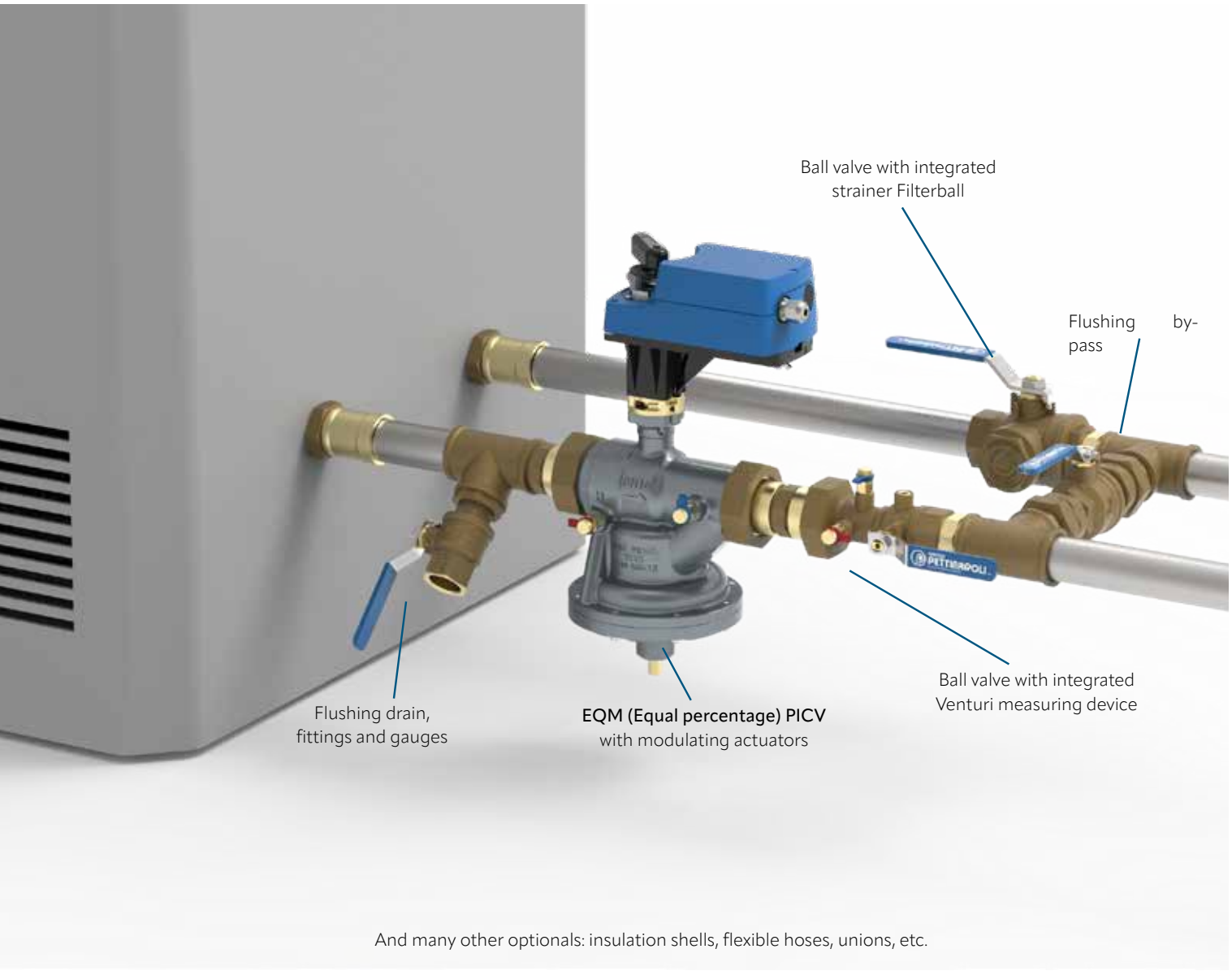
WHAT CAN WE OFFER ?

For small and medium size CRAHU:

√ Pre-fabricated kits with PICV
√ EQM (Equal percentage) PICV
√ Modulating actuators
√ Insulation shells
√ Flexible hoses
√ Venturi devices
√ Non-return valves
√ Unions and fittings

For big size CRAHU:

√ Equalpercentage PICV
√ Modulating actuators
√ Flushing 3-way ball valve
√ DZR ball valve with integrated stariner Filterball
√ Isolation ball valve with integrated Venturi
√ Insulation shells
√ PT gauges
√ Unions and fittings



And many other optionals: insulation shells, flexible hoses, unions, etc.

- - - BIM files and technical support available - - -

ISOLATING CASES
for PICV & KITS

091IHV

Heating insulating case for EvoPICV 91 Series.

Ø"		Code
1/2" - 3/4"	1	6902010471C
1"	1	6902010770C

091ICV

Cooling insulating case for EvoPICV 91 Series.

Ø"		Code
1/2" - 3/4"	1	6902010472C
1"	1	6902010780C

091XIHV

Heating insulating case for EvoPICV 91X Series.

Ø"		Code
1/2" - 3/4"	1	

091XICV

Cooling insulating case for EvoPICV 91X Series.

Ø"		Code
1/2" - 3/4"	1	6902010570C

092IHV

Heating insulating case for Dynasty PICV 92 Series.

Ø"		Code
1/2"(92VL - 92L)	1	6902010590C
1/2"-3/4"(92H) - 3/4"(92L)	1	6902010600C
1" - 92L - 92H	1	6902010970C
1 1/4" - 92H	1	6902011250C
1 1/2" - 92H	1	6902011260C
2" - 92H	1	

092ICV

Cooling insulating case for Dynasty PICV 92 Series.

Ø"		Code
1/2"(92VL - 92L)	1	6902010610C
1/2"-3/4"(92H) - 3/4"(92L)	1	6902010620C
1" - 92L - 92H	1	6902011110C
1 1/4" - 92H	1	
1 1/2" - 92H	1	

083IHV

Heating insulating case for EvoPICV 83 Series.

Ø"		Code
1 1/4" - 1 1/2" - 2" DN40	1	6902010720C
2" DN50	1	6902010760C

093IHV

Heating insulating case for EvoPICV 93 Series.

Ø"		Code
3/4" - 1" - 1 1/4"	1	6902010531C

094IHV

Heating insulating case for EvoPICV 94F Series.

Ø"		Code
2" - 94FH / 95FH	1	6902010790C
2 1/2" - 94FH / 95FH	1	6902010800C
3" - 94FL / 95FL	1	6902010840C
4" - 94FL / 95FL	1	6902010810C
5" - 94FL	1	6902010820C
6" - 94FL /94FH / 95FL / 95FH	1	6902010830C

IHV

Heating insulating case for XT series.

Ø"		Code
I600HV 1/2" - XT600 series	1	6902010190C

Ø"		Code
I601HV 1/2" - XT601 series	1	6902010070C

Ø"		Code
I700HV 1/2" / 3/4" - XT700 series	1	6902010540C

Ø"		Code
I701HV 1/2" / 3/4" - XT701 series	1	6902010580C

Ø"		Code
I702HV 1/2" x 150/450 l/h - XT702 series	1	6902010890C
I702HV 1/2" x 850 l/h - XT702 series	1	6902010900C
I702HV 3/4" - XT702 series	1	6902010880C
I702HV 1" x 3/4" - XT702 series	1	6902010990C

Ø"		Code
I704HV 1/2" x 150/450 l/h - XT704 series	1	6902010850C
I704HV 1/2" x 850 l/h - XT704 series	1	
I704HV 3/4" - XT704 series	1	6902010580C
I704HV 1" - XT704 series	1	

Ø"		Code
I800HV 3/4" - XT800 series	1	6902010170C
I800HV 1" - XT800 series	1	

Ø"		Code
I801HV 3/4" - XT801 series	1	6902010080C
I801HV 1" - XT801 series	1	

Ø"		Code
I850HV 1" - XT850 series	1	6902010160C

Ø"		Code
I851HV 1" - XT851 series	1	6902010090C

Ø"		Code
I880HV 1"x 3/4" - XT880 series	1	
I880HV 1" - XT880 series	1	

Ø"		Code
I881HV 1" 2500-3300 l/h- XT881 series	1	
I881HV 1" 5200 l/h - XT881 series	1	

Ø"		Code
I1694HV 1 1/2" - XT1694 series	1	
I1695HV 1 1/2" - XT1695 series	1	

ICV

Cooling insulating case for XT series.

Ø"		Code
I600CV 1/2" - XT600 series	1	6902010210C

Ø"		Code
I601CV 1/2" - XT601 series	1	6902010230C

Ø"		Code
I700CV 1/2" / 3/4" - XT700 series	1	

Ø"		Code
I701CV 1/2" / 3/4" - XT701 series	1	

Ø"		Code
I702CV 1/2" x 150/450 l/h - XT702 series	1	
I702CV 1/2" x 850 l/h - XT702 series	1	
I702CV 3/4" - XT702 series	1	
I702CV 1" x 3/4" - XT702 series	1	

Ø"		Code
I704CV 1/2" x 150/450 l/h - XT704 series	1	
I704CV 1/2" x 850 l/h - XT704 series	1	
I704CV 3/4" - XT704 series	1	
I704CV 1" - XT704 series	1	

Ø"		Code
I800CV 3/4" - XT800 series	1	6902010200C
I800CV 1" - XT800 series	1	

Ø"		Code
I801CV 3/4" - XT801 series	1	6902010240C
I801CV 1" - XT801 series	1	

Ø"		Code
I850CV 1" - XT850 series	1	6902010220C

Ø"		Code
I851CV 1" - XT851 series	1	6902010250C

Ø"		Code
I880CV 1"x 3/4" - XT880 series	1	

Ø"		Code
I881CV 1" 2500-3300 l/h - XT881 series	1	

STATIC BALANCING
valves

TERMINATOR®

TERMINATOR®

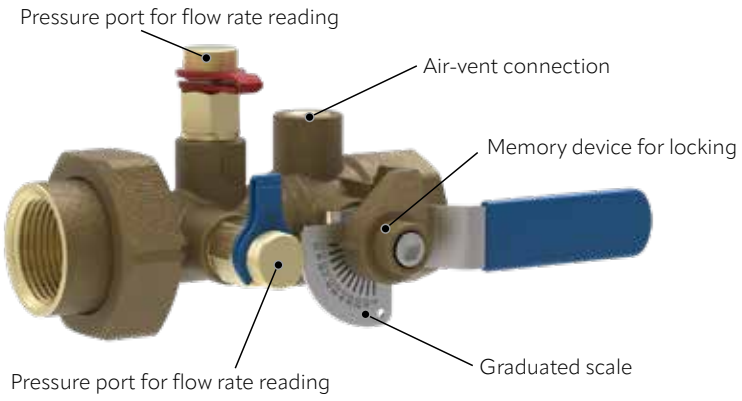
COMMISSIONING

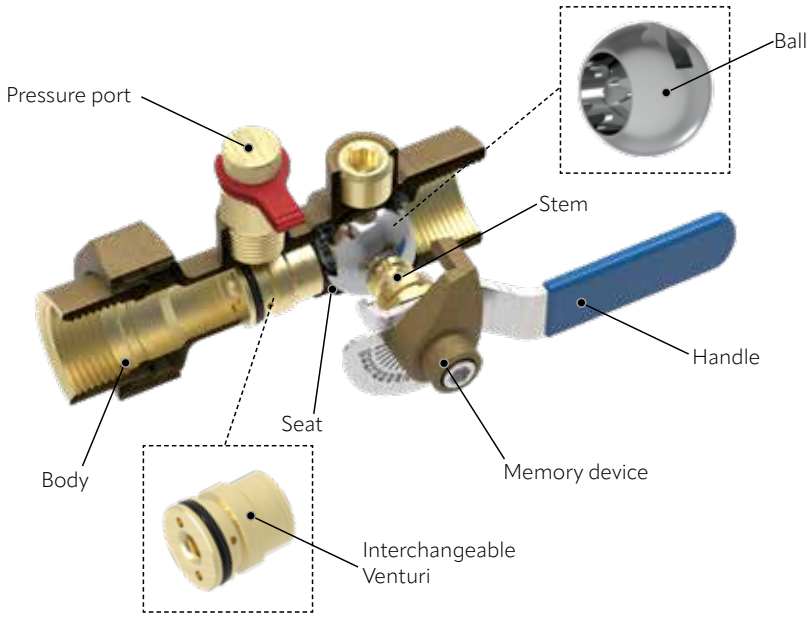
Our **Terminator** is a patented **static balancing valve** with a quarter turn ball and one of its major benefits, apart from having 100% complete shut-off, is the ability to adapt its different components with the possibility of **regulating different flow rates with the same valve body**. Once the valve is set, the required flow rate can be adjusted by moving the hand lever.

The design flow rate should be measured with the Venturi and the digital pressure gauge. Correctly set the pressure gauge indicating the valve type, size and Venturi. Note that the valve has a reduced ball passage. Once the flow rate is set, turn and lock the memory device to the desired percentage.

INTERCHANGEABLE VENTURI

Our **Terminator** range of static balancing valves incorporates a **special patented technology** that allows **flow measurement under all conditions**. The venturi size can be changed so that the ΔP taken from the orifice can always be adjusted for the most accurate calibration possible.





B90TV *TERMINATOR®*

Terminator® manual balancing valve with memory stop device and interchangeable venturi for flowrate measuring (patent).
Connections: F x F tail
Features: Pressure ports included

Ø"		Code
1/2" x 3 mm - Kvs 0,36	50/5	3701712750C
1/2" x 4,25 mm - Kvs 0,71	50/5	3701512750C
1/2" x 6 mm - Kvs 1,38	50/5	3701612750C
3/4" x 9 mm - Kvs 3,25	50/5	3702212750C
3/4" x 12 mm - Kvs 6	50/5	3702012750C
1" x 10 mm - Kvs 4,10	30/5	3702612750C
1" x 14,5 mm - Kvs 8,80	30/5	3702512750C
1 1/4" x 13 mm - Kvs 7	16/2	3703312750C
1 1/4" x 19 mm - Kvs 14,70	16/2	3703212750C
1 1/2" x 15 mm - Kvs 9,50	16/2	3704112750C
1 1/2" x 22 mm - Kvs 19,20	16/2	3704012750C
2" x 18 mm - Kvs 12,50	8/2	3705112750C
2" x 31,5 mm - Kvs 42,00	8/2	3705012750C

Ø"		Code
1/2" NPT x 3 mm - Kvs 0,36	50/5	
1/2" NPT x 4,25 mm - Kvs 0,71	50/5	
1/2" NPT x 6 mm - Kvs 1,38	50/5	
3/4" NPT x 9 mm - Kvs 3,25	50/5	
3/4" NPT x 12 mm - Kvs 6	50/5	
1" NPT x 10 mm - Kvs 4,10	30/5	
1" NPT x 14,5 mm - Kvs 8,80	30/5	
1 1/4" NPT x 13 mm - Kvs 7	16/2	
1 1/4" NPT x 19 mm - Kvs 14,70	16/2	
1 1/2" NPT x 15 mm - Kvs 9,50	16/2	
1 1/2" NPT x 22 mm - Kvs 19,20	16/2	
2" NPT x 18 mm - Kvs 12,50	8/2	
2" NPT x 31,5 mm - Kvs 42,00	8/2	

B90T2VL *TERMINATOR®*

Terminator® balancing valve with memory stop, venturi for flow rate measuring and patented linear low profile ball. DN15.
Connections: 1/2" or 3/4" tail

Ø"		Code
1/2" x 3 mm - Kvs 0,36	50/5	
1/2" x 4,25 mm - Kvs 0,72	50/5	
1/2" x 6 mm - Kvs 1,45	50/5	
1/2" x 7,5 mm - Kvs 2,20	50/5	

B90T2VH *TERMINATOR®*

Terminator® balancing valve with memory stop, venturi for flow rate measuring and patented linear high profile ball. DN15.
Connections: Union piece couplings F 1/2" or 3/4" tail

Ø"		Code
1/2" x 7,5 mm - Kvs 2,20	50/5	
3/4" x 9 mm - Kvs 3,31	50/5	
3/4" x 10 mm - Kvs 4,40	50/5	
3/4" x 12 mm - Kvs 6,26	50/5	3702022170C

General technical specifications	
T Min:	- 10 °C
T Max:	+ 120 °C
Maximum working pressure	2500 kPa / 25 bar
Stroke	90°
Permitted fluid	Water / Water+glycol 50%
Connections	ISO 7/1 Rc or NPT

SB1N *TERMINATOR®*

Variable orifice static balancing valve for HVAC.
Through this valve the pre-setting and flow balancing in branch segments or in the general circuit can be carried out.

Ø"		Code
DN 65	1	3706541300C
DN 80	1	3708041300C
DN 100	1	3710141300C
DN 125	1	3712541300C
DN 150	1	3715041300C
DN 200	1	3720041300C
DN 250	1	3725041300C
DN 300	1	3730041300C

General technical specifications	
T Min: DN65 - DN80 - DN100 - DN125 - DN150 - DN200	- 10 °C
T Min: DN250 - DN300	- 10 °C
T Max: DN65 - DN80 - DN100 - DN125 - DN150 - DN200	+ 120 °C
T Max: DN250 - DN300	+ 110 °C
P Max:	16 bar/232,06 psi
Flanges:	EN1092-2 PN16
Allowed medium:	Water, Water+ glycol (max 50%)

Setting

Valve position can be read from the graduated scales which show the basic setting (number of complete turns) and the fine setting (1/10 of turn). Intermediate positions can be adjusted continuously. Pre-setting position can be retrieved by the mean of an adjustable travel stop.
For sizes up to DN150, the adjustment handwheel has a lobe structure (fig. a); from DN200 it is a spoked handwheel (fig. b).

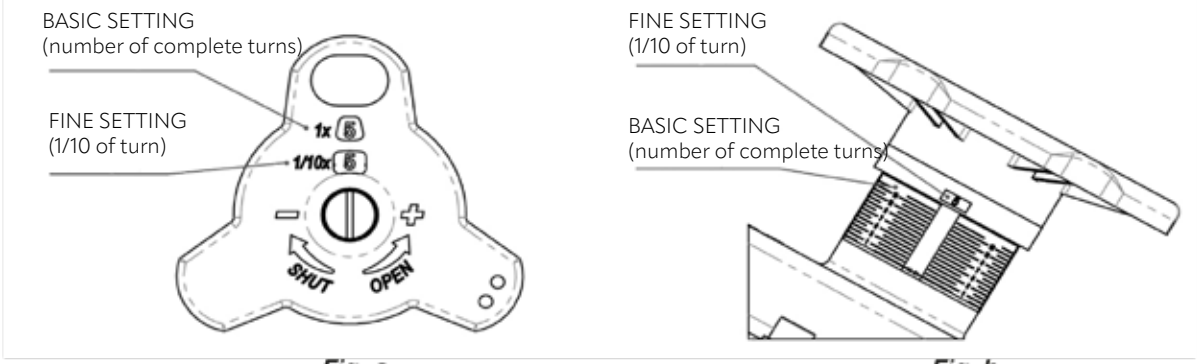


Fig. a *Fig. b*

ZONE VALVES
for fancoils

662

2-way zone valve for fan coil units and heating and cooling applications. Use limited by the value of the maximum operating differential pressure, which reduces the flow range.
Connections: M x M
Features: axial movement. Normally open valve

Ø"		Code
1/2" DN10 - Kv 0.63	1	6401612000C
1/2" DN10 - Kv 1	1	6401712000C
1/2" DN10 - Kv 1.6	1	6401512000C
3/4" DN15 - Kv 2.5	1	6402012000C
1" DN20 - Kv 4.2	1	6402512000C

663

3-way zone valve for fan coil units and heating and cooling applications. Use limited by the value of the maximum operating differential pressure, which reduces the flow range.
Connections: M x M
Features: axial movement. Normally open valve

Ø"		Code
1/2" DN10 - Kv 0.63	1	6401613000C
1/2" DN10 - Kv 1	1	6401713000C
1/2" DN10 - Kv 1.6	1	6401513000C
3/4" DN15 - Kv 2.5	1	6402013000C
1" DN20 - Kv 4.2	1	6402513000C

664

4-way zone valve for fan coil units and heating and cooling applications. Use limited by the value of the maximum operating differential pressure, which reduces the flow range.
Connections: M x M
Features: axial movement. Normally open valve

Ø"		Code
1/2" DN10 - Kv 1.6	1	6401511000C
3/4" DN15 - Kv 2.5	1	6402011000C
1" DN20 - Kv 4.2	1	6402511000C

A54402S

Electro-thermal ON-OFF-PWM N.C. actuator. (normally closed) - 24V, with adapter and 1 meter cable included, for zone valve. Stroke 4 mm.
For 662 - 663 - 664.

V		Code
24 V - ON/OFF PWM - 4 mm - VA80	100/1	A544O2S001C

A54202S

Electro-thermal ON-OFF-PWM N.C. actuator. (normally closed) - 230V, with adapter and 1 meter cable included, for zone valve. Stroke 4 mm.
For 662 - 663 - 664.

V		Code
230 V - ON/OFF PWM - 4 mm - VA80	100/1	A542O2S001C

BUTTERFLY VALVES

BF1SE

Shut-off LUG butterfly valve for HVAC (heating and cooling), water treatment and distribution (no drinking water, no gas). Ductile iron body. Integrated support ISO 5211 for actuators assembling.
Lever included.

Ø"		Code
DN 40 - Kv 79	1	
DN 50 - Kv 99	1	
DN 65 - Kv 169	1	
DN 80 - Kv 261	1	3708041000C
DN 100 - Kv 518	1	3710041000C
DN 125 - Kv 883	1	
DN 150 - Kv 1364	1	3715041000C
DN 200 - Kv 2708	1	3720041000C

General technical specifications	
Nominal pressure	16 bar / 232,06 psi
Fluids	Water / Water+glycol 30%
T MIn	- 10 °C
T Max	+ 120 *C

BF2SE

Shut-off butterfly valve with body type WAFER for HVAC (heating and cooling), water treatment and distribution (no drinking water).
Body made of ductile iron, central disc made of stainless steel and sleeve made of EPDM.
Equipped with alignment holes for mounting between flanges EN 1092-1 (PN6 - PN10 - PN16) and ANSI B16.5 (#150).

Ø"		Code
DN 40 - Kv 79	1	3704041400C
DN 50 - Kv 99	1	3705041400C
DN 65 - Kv 108	1	3706541400C
DN 80 - Kv 261	1	3708041400C
DN 100 - Kv 518	1	3710041400C
DN 125 - Kv 883	1	3712541400C
DN 150 - Kv 1364	1	3715041400C
DN 200 - Kv 2716	1	3720041400C
DN 250 - Kv 4611	1	3725041400C
DN 300 - Kv 7124	1	3730041400C

Lever included except DN300 model.

OBF1G

Gear box. Available for BF1SE/ BF2SE

Ø"		Code
DN 40 - DN 65	1	
DN 80 - DN 100	1	9208041000C
DN 125 - DN 150	1	9215041000C
DN 200	1	9220041000C

DIRECT EXPANSION BALL VALVES

for direct expansion air conditioning systems

S70

Refrigerant ball valves type HFC / HFO. Bi-directional valve with internal pressure balancing system and sealing cap. Available up to 1 3/8 ".
Connections: ODS copper solder

Ø"		Code
1/4"	1	3200710000C
3/8"	1	3201010000C
1/2"	1	3201510000C
5/8"	1	3201610000C
3/4"	1	3202010000C
7/8"	1	3202310000C
1 1/8"	1	3202910000C
1 3/8"	1	3203410000C

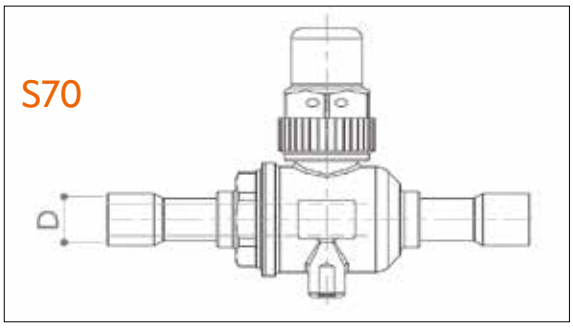
S70S

Refrigerant ball valves type HFC / HFO with access port. Bi-directional valve with internal pressure balancing system and sealing cap.
Connections: ODS copper solder
Features: Available up to 1 3/8 ".

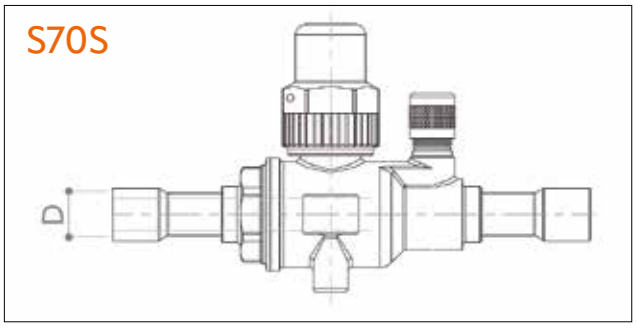
Ø"		Code
1/4"	1	3200720000C
3/8"	1	3201020000C
1/2"	1	3201520000C
5/8"	1	3201620000C
3/4"	1	3202020000C
7/8"	1	3202320000C
1 1/8"	1	3202920000C
1 3/8"	1	3203420000C

General technical specifications	
Refrigerant gas type	HFC - HFO
T Min	- 40 °C
T Max	+ 150 °C
P Max	45 bar / 652,67 psi

S70



S70S



D connection standard: imperial	1/4"	3/8"	1/2"	5/8"	3/4"	7/8"	1 1/8"	1 3/8"
ball port	12	12	12	12	20	20	25	32
Kv	1,1	3,2	6	14,2	18	27,5	40,5	67,5

SIX-WAY
valves
EvoSix

EvoSix

1 **ONE PRODUCT**
25 different kv configurations
All interchangeable discs included

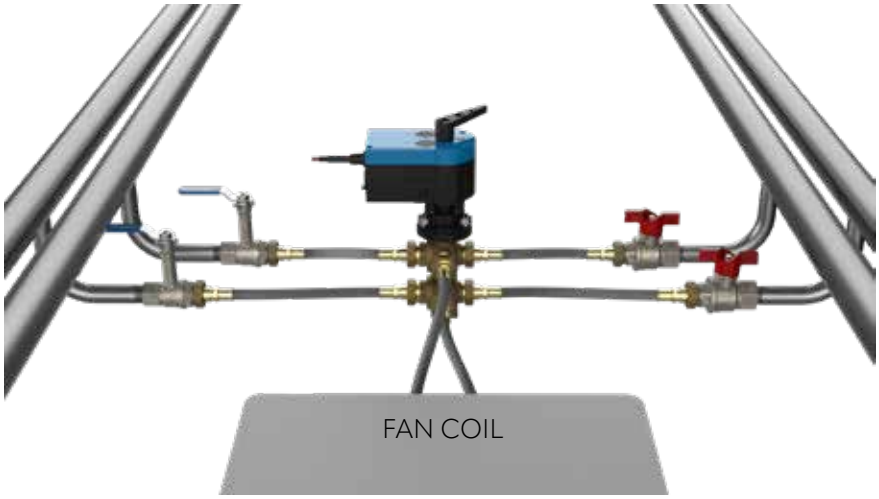
2 **DOUBLE**
fixing system
Directly on the valve or through 063ZA bracket

3 **3/4"**
Sphero conical
Direct connection with flexible hoses

4 **QUICK ACTUATOR**
assembly
With M63 bayonet ring

APPLICATION FIELD

Pettinaroli's **six-way valve (63 series)** was designed keeping in mind our **decade-long experience in big HVAC projects all over Europe**. Four-pipe systems are increasingly more common and managing them automatically is technically and practically difficult. This gave our engineers the input to design a **compact and functional solution** like our Pettinaroli 63/2S six-way ballvalve.



KV VALUES SELECTION

In order to simplify the logistic and the installation on site, **the valve is supplied with the maximum Kv**, or flow rate, configuration on both sides. Through our experience on the field, we know that heating and cooling flow rates are different because they are related to the project's ΔT. Very often, the heating flow rate is smaller than the cooling one whose ΔT is lower. Hence the choice to give a **standard kit together with the valve**: this kit includes 4 couples of interchangeable discs made of PSU.
The final user can select the suitable Kv for each side by changing the disc. **The kit is in the valve box**.
The Kv value is written on the internal side of every disc. The installer, following the designer's guidelines, picks the suitable discs out for both sides. This expedient ensures **high flexibility and practicality**.

DN15 Kv 1.25

 Kv 0.25

 Kv 0.40

 Kv 0.65

 Kv 1.00

DN20 Kv 2.8

 Kv 0.70

 Kv 1.00

 Kv 1.6

 Kv 2.1

DN20 Kv 4.0

 Kv 2.5

63/2S

EvoSIX Six-way ballvalve for HVAC 4 pipes applications to automatically carry out the winter-summer changeover or, if needed, the control of radiant ceilings, fan coils and chilled beams. Corrosion resistant.

Connections: G 3/4"M cone 60° BS5200 (for sphero conical fittings)
Insulating case: Available

Ø"		Code
3/4" DN15 - Kv 1.25	1	6401590601C
3/4" DN20 - Kv 2.8	1	6401790601C
3/4" DN20 HF - Kv 4.0	1	6401790561C

63

EvoSIX Six-way ballvalve for HVAC 4 pipes applications to automatically carry out the winter-summer changeover or, if needed, the control of radiant ceilings, fan coils and chilled beams. Corrosion resistant.

Connections: 1/2" F G - 3/4" F G
Insulating case: Available

Ø"		Code
1/2" DN15 - Kv 1.25	1	6401690521C
3/4" DN20 - Kv 2.8	1	6401793521C
3/4" DN20 HF - Kv 4.0	1	6401792521C
1/2" NPT DN15 - Kv 1.25	1	6401690531C
3/4" NPT DN20 - Kv 2.8	1	
3/4" NPT DN20 HF - Kv 4.0	1	

63/2F

EvoSIX Six-way ballvalve for HVAC 4 pipes applications to automatically carry out the winter-summer changeover or, if needed, the control of radiant ceilings, fan coils and chilled beams. Corrosion resistant.

Connections: G 3/4" M flat end
Insulating case: Available

Ø"		Code
3/4" DN15 - Kv 1.25	1	6401590513C
3/4" DN20 - Kv 2.8	1	6401798510C
3/4" DN20 HF - Kv 4.0	1	6401790550C

63/2E

EvoSIX Six-way ballvalve for HVAC 4 pipes applications to automatically carry out the winter-summer changeover or, if needed, the control of radiant ceilings, fan coils and chilled beams. Corrosion resistant.

Connections: G 3/4"M Euroconos – 3/4" x 18mm
Available fittings: 3015 - 3015SCR
Insulating case: Available

Ø"		Code
3/4" DN15 - Kv 1.25	1	6401590502C
3/4" DN20 - Kv 2.8	1	6401790500C
3/4" DN20 HF - Kv 4.0	1	

General technical specifications			
Water temperature	-10 °C +120°C	Total operation angle	90°
Nominal pressure	16 bar	First side operation angle	0 – 32°
Kv DN15	1.25 – 1 – 0.65 – 0.4 – 0.25	"Dead zone" operation angle	32° – 58°
Kv DN20	2.8 – 2.1 – 1.6 – 1 – 0.7	Second side operation angle	58° – 90°
Kv DN20 HF	4.0 - 2.5	Maximum differential pressure	2 bar

M63

24V electric actuator with proportional control mode (0-10V) or 2/3 points, for EvoSIX six-way (63 Series). It enables the automatic winter-summer change-over or it allows the control of radiant ceilings, fan coil units and chilled beams.

Ø"		Code
24V (0-10) - 2/3 points	1	6400800300C

General technical specifications	
Supply voltage	24VAC ±20% – 50 – 60Hz 24VCC -10% ÷ +20%
Maximum power consumption	4.9 W – 8.7 VA
Running time	120 s / 60 s
Angle of rotation	0° – 90°
Torque	8 Nm (120 s e 60 s)

063GI

Insulating case for EvoSIX 63/2S and 63 series.

Ø"		Code
DN15	1	9402010300C
DN20	1	9402010380C

063ZA

Fastening angle bracket with two buttonholes on the vertical side. Valve can be fixed on the horizontal part using the specific screws.
Features: M4 screws included in the angle bracket packing

		Code
	1	8201045000C

091SOS

Pilers for Kv management.

		Code
	1	9400000070C

1007

Union fitting.
Connections: 3/4" F (cone 60° BS5200) x 1/2" M with sealant

Ø"		Code
3/4" F x 1/2" M	1	9602010100C

1007K

Union piece fitting.
Connections: 3/4" F (cone 60° BS5200) x 1/2" M - Features: With o-ring

Ø"		Code
3/4" F x 1/2" M	1	9601500420C

1007BOA

Union fitting.
Connections: 3/4" F (cone 60° BS5200) x 1/2" M

Ø"		Code
3/4" F x 1/2" M	1	9601510210C

1007MSC

Weld Union fitting.
Connections: 3/4" F (cone 60° BS5200) x 22 mm

Ø"		Code
3/4" F x 22 mm	1	9602611020C

1007MS

Weld union fitting.
Connections: 3/4" F (cone 60° BS5200) x 15 mm

Ø"		Code
3/4" F x 15 mm	1	9601510190C

1007MC

Union fitting.
Connections: 3/4" F (cone 60° BS5200) x 3/4" M flat seat

Ø"		Code
3/4" F x 3/4" M	1	9602011210C

1007WFP

Union fitting.
Connections: 3/4" F (cone 60° BS5200) x 3/4" F flat seat

Ø"		Code
3/4" F x 3/4" F	1	9602010520C

1007M

Union fitting.
Connections: 3/4" F (cone 60° BS5200) x 1/2" M

Ø"		Code
3/4" F x 1/2" M - L 44 mm	1	9601510470C
3/4" F x 1/2" M - L 52 mm	1	9601510450C
3/4" F x 1/2" M - L 58 mm	1	9601510440C
3/4" F x 3/4" M - L 80 mm	1	9602010090C

1007WFC

Union fitting.
Connections: 3/4" F (cone 60° BS5200) x 1/2" F

Ø"		Código
3/4" F x 1/2" M - L 44 mm	1	9601510470C
3/4" F x 1/2" M - L 52 mm	1	9601510450C
3/4" F x 1/2" M - L 58 mm	1	9601510440C
3/4" F x 3/4" M - L 80 mm	1	9602010090C

AL52/3R

Full port ball valve with red butterfly handle.
Connections: F x M cone 60 ° BS5200.
Features: PN 25. Usage + 100 °

Ø"		Code
1/2" F x 3/4" M spheroconical	1	9701538680C
3/4" F x 3/4" M spheroconical	1	9702018060C
3/4" F x 1" M spheroconical	1	9702038680C

AL52/3B

Full port ball valve with blue butterfly handle.
Connections: F x M cone 60 ° BS5200.
Features: PN 25. Usage + 100 °

Ø"		Code
1/2" F x 3/4" M spheroconical	1	9701568680C
3/4" F x 3/4" M spheroconical	1	9702018080C
3/4" F x 1" M spheroconical	1	

51LL/3B

Full port ball valve with extended shaft. Blue steel lever.
Connections: F x M cone 60 ° BS5200
Features: PN 30. Corrosion resistant alloy and TEA coated.

Ø"		Code
1/2" F x 3/4" M spheroconical	1	3701594200C

52TEUGM

Ball valve.
Connections: F x 12 mm Male push fitting

Ø"		Code
1/2" F x 12 mm	1	3701504210C
3/4" F x 12 mm	1	3702004210C

63/2S APPLICATION DIAGRAM

703RSFQ

Compact manifold with integrated ball valve and red handle.

Connections: 1/2" F x 3/4" M (BS5200 60°) with 3 x 12 mm Male push fitting outlets. Features : Available with blue handle (703BSFQ)

Ø"		Code
3/4" M BS5200 60° x 1/2" F	1	9612310100C

703RFSQ

Compact manifold with integrated ball valve and red handle.

Connections: 1/2" F x 3/4" M (BS5200 60°) with 3 x 12 mm Male push fitting outlets. Features : Available with blue handle (703BFSQ)

Ø"		Code
1/2" F X 3/4" M BS5200 60°	1	9612310110C

704RSFQ

Compact manifold with integrated ball valve and red handle.

Connections: 1/2" F x 3/4" M (BS5200 60°) with 4 x 12 mm Male push fitting outlets. Features : Available with blue handle (704BSFQ)

Ø"		Code
3/4" M BS5200 60° x 1/2" F	1	9612400020C

704RFSQ

Compact manifold with integrated ball valve and red handle.

Connections: 1/2" F x 3/4" M (BS5200 60°) with 4 x 12 mm Male push fitting outlets. Features : Available with blue handle (704BFSQ)

Ø"		Code
1/2" F X 3/4" M BS5200 60°	1	9612400000C

703RSFM

Compact manifold with integrated ball valve and red handle.

Connections: 3/4" M (BS5200 60°) x 1/2" F with 3 1/2" M flat seat outlets. Features : Available with blue handle (703BSFM)

Ø"		Code
3/4" M BS5200 60° x 1/2" F	1	9612310090C

703RFSM

Compact manifold with integrated ball valve and red handle.

Connections: 1/2" F x 3/4" M (BS5200 60°) with 3 1/2" M flat seat outlets. Features : Available with blue handle (703BFSM)

Ø"		Code
1/2" F X 3/4" M BS5200 60°	1	

704RSFM

Compact manifold with integrated ball valve and red handle.

Connections: 3/4″ M (BS5200 60°) x 1/2″ F with 4 1/2″ M flat seat outlets.
Features : Available with blue handle (703BSFM)

Ø″		Code
3/4” M BS5200 60° x 1/2” F	1	

704RFSM

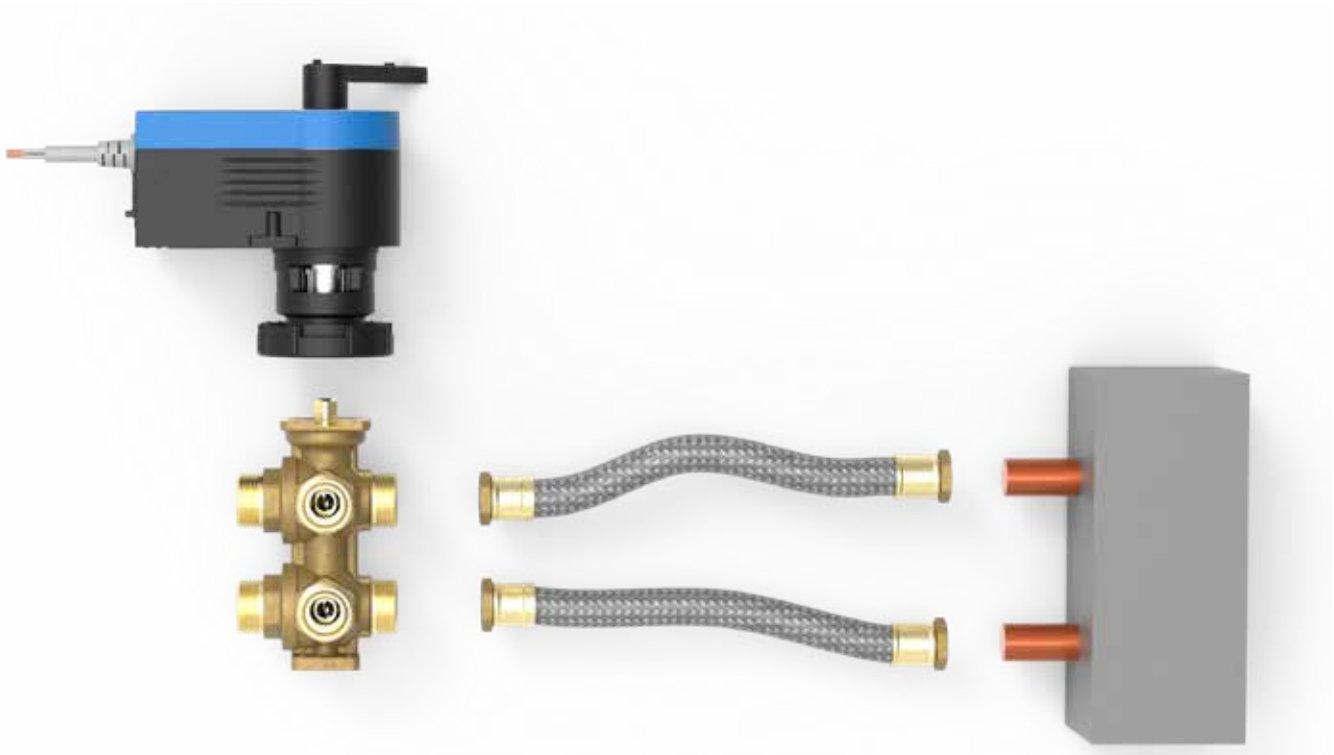
Compact manifold with integrated ball valve and red handle.

Connections: 1/2″ F x 3/4″ M (BS5200 60°) with 4 1/2″ M flat seat outlets.
Features : Available with blue handle (703BFSM)

Ø″		Code
1/2” F X 3/4” M BS5200 60°	1	

EVOFLEX

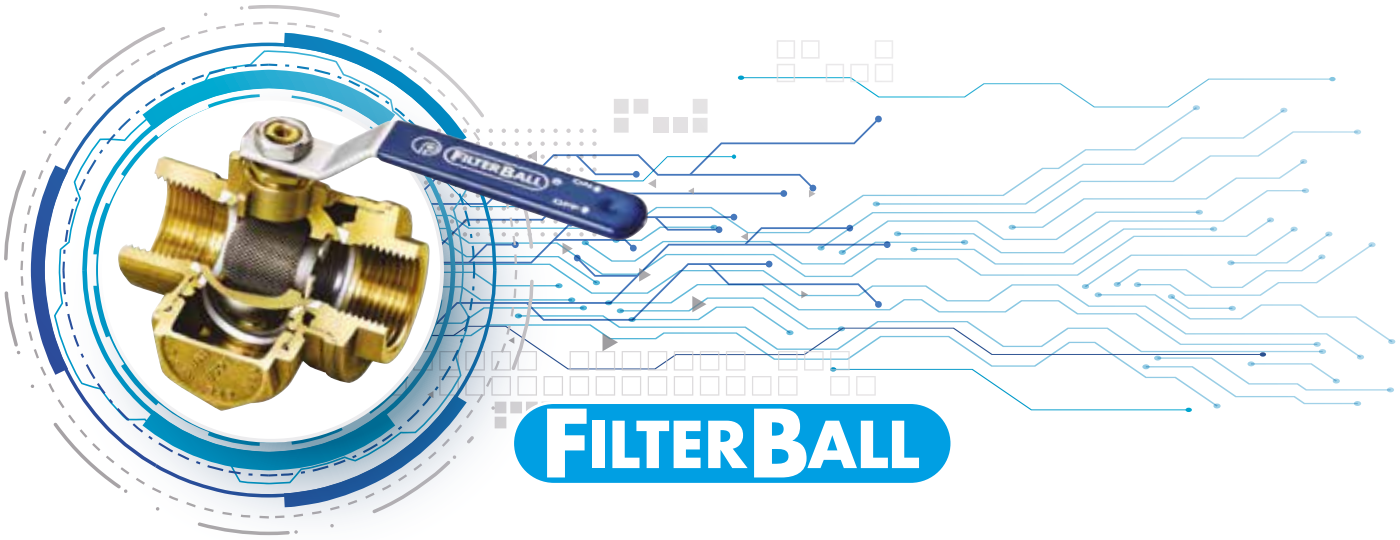
All the flexible hoses available for this type of solution are listed in detail in the dedicated chapter.



FILTERS
and dirt separators

FILTER BALL

EvoMAGic
MAGNETIC DIRT SEPARATOR FILTER

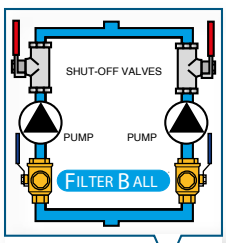


The Pettinaroli **FilterBall** valve is a **shut-off ball valve**, housing an interchangeable cylindrical **strainer**, easy to inspect and change during maintenance operations.

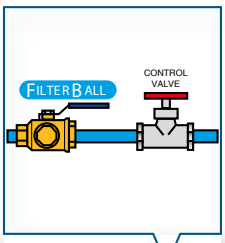
A simple valve therefore has **two important functions**:

- the **perfect sealing** of the ball valves
- the **careful filtration** of the liquid, and this is its great reliability protecting all the components of the plant

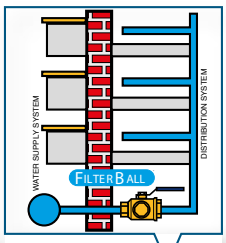
Compared to the traditional use of two components, apart from the obvious **advantage in terms of cost, installation and space**, the **FilterBall** valve means **much lower pressure losses**, which practically match those of the single filter.



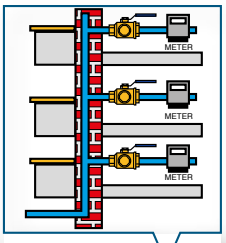
1. Before the circulation pumps in heating, air conditioning and autoclave systems



2. Before the control valves to protect their operation

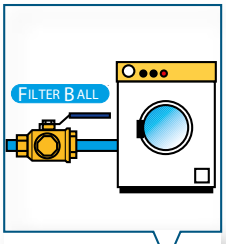


3. On the inlet pipes of the water supply system in buildings

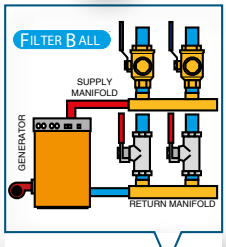


4. On the inlet pipes of the water supply system of each apartment, to protect the meter and taps (to avoid abrasions and malfunctions due to sand and debris)

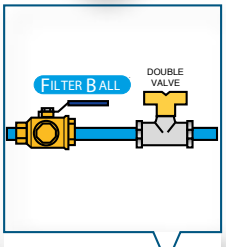
1 2 3 4



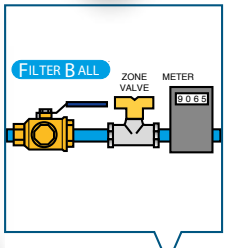
5. On the power supply pipes of household appliances



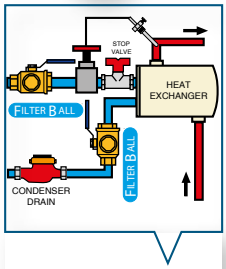
6. At the exit of the boiler or on the distribution pipes, for better cleaning of the entire system



7.Before the check valves, to protect their sealing characteristics



8. At the entrance of each zone, in systems equipped with a meter, to protect its mechanisms



9. Before the heat exchanger and the condenser to protect their delicate mechanisms from any particles suspended in water.

5 6 7 8 9

1 Cap with double seat (metallic and rubber O-Ring)

2 Bronze clip holding the strainer

3 Stainless Steel strainer AISI 304

TECHNICAL SPECIFICATIONS

Ballvalve with integrated strainer easy to inspect and clean made of **corrosion resistant brass** alloy CW602N, **threaded ends**.

Stem with **triple safety** (2-O-Rings, PTFE ring), fitted from inside to prevent tampering extraction or bursting.

Double tightening in the joint between body and end-connection.

Movable stuffing box.

Solid spheres are made using diamond tools and chromium plated to the required thickness.

Reversible handle. (Art. 51F)

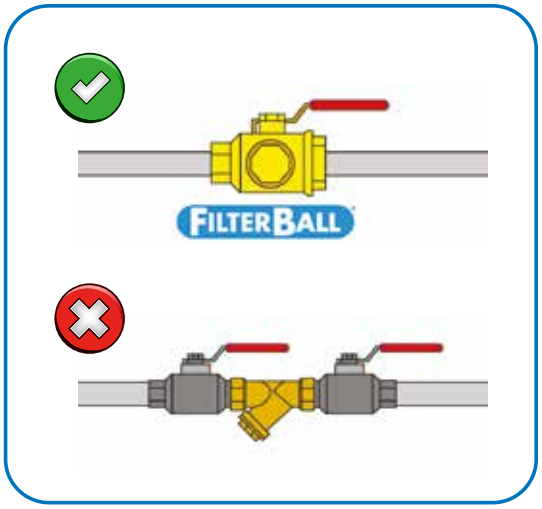
FM

Type	Mesh	Filtering capacity	Casing
FM28	28	Ø 700 µm (0.7 mm)	simple
FM40	40	Ø 300 µm (0.3 mm)	simple
FM60	60	Ø 230 µm (0.23 mm)	double
FM80	80	Ø 180 µm (0.18 mm)	double
FM100	100	Ø 150 µm (0.15 mm)	double

Stainless steel strainer for Art. **51F - 52F**

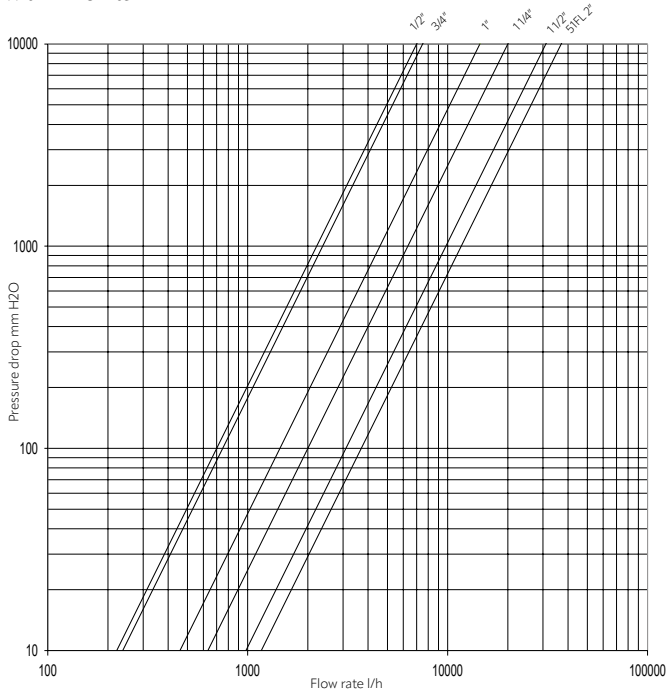
NOTE: The **FilterBall** valve compared with a Y standard strainer allows **more than a double flow**, assuming same load losses and suitable maintenance.

These features make it **suitable for all uses, in particular hygiene and sanitary uses**, even when normal water purification additives are present.



PRESSURE DROP DIAGRAM

* With FM28 filter



Working pressure and temperature
16 bar - 100°C (250 psi - 210°F - non shock)
10 bar - 150°C (150 psi - 300°F - non shock)

51F

ACS

WRAS from 1/2" to 1 1/4"

n° 03/00162

FilterBall ball valve with integrated strainer type FM 28. Blue steel lever.
Connections: F x F
Features: made of non dezincifiable alloy CW602N.

Ø"		Code
1/2"	16/4	3901510000C
3/4"	16/4	3902010000C
1"	12/3	3902510000C
1 1/4"	8/4	3903210000C
1 1/2"	4/2	3904010000C
2" (51FL)	2	3905091000C

51F/1

FilterBall ball valve with integrated strainer type FM 28. Blue steel lever.
Connections: F x M
Features: made of non dezincifiable alloy CW602N.

Ø"		Code
3/4"	16/4	

51FG

n° 03/00217

FilterBall ball valve with integrated strainer type FM 28. Green steel lever.
Connections: F x F
Features: made of non dezincifiable and lead-free alloy CW511L.

Ø"		Code
1/2"	16/4	3901592000C
3/4"	16/4	3902092000C
1"	12/3	3902592000C
1 1/4"	8/4	3903292000C
1 1/2"	4/2	3904092000C
2" (51FGL)	2	3905092000C

52F

ACS

FilterBall ball valve with integrated strainer type FM 28. Blue butterfly handle.
Connections: F x F
Features: made of non dezincifiable alloy CW602N.

Ø"		Code
1/2"	16/4	3901510010C
3/4"	16/4	3902010010C
1"	12/3	3902510010C

52F/1

FilterBall ball valve with integrated strainer type FM 28. Blue butterfly handle.
Connections: F x M
Features: made of non dezincifiable alloy CW602N.

Ø"		Code
3/4"	16/4	3902091020C

56F/2

FilterBall ball valve with integrated strainer type FM 28.
15 mm square head.
Connections: M x M

Ø"		Code
3/4"F X 1/2" GAS	16/4	3902510310C

EvoMAGic

MAGNETIC DIRT SEPARATOR FILTER

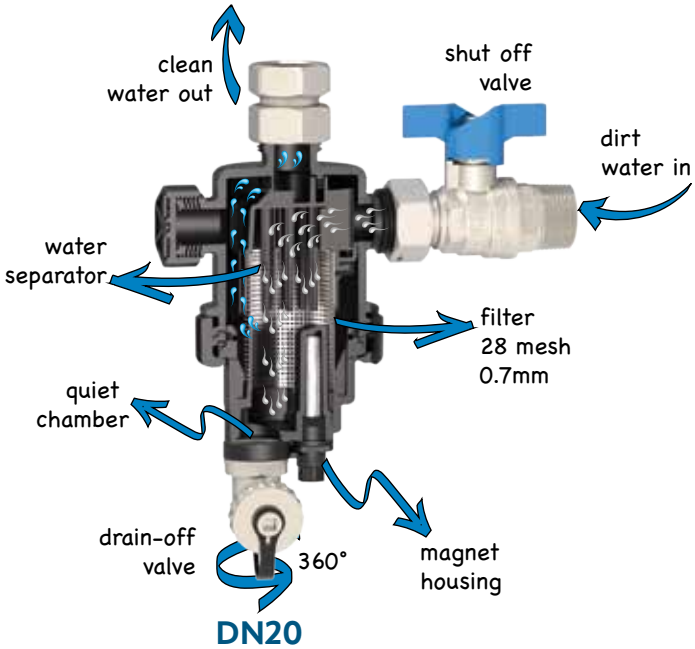
HIGH-PERFORMACE WATER FILTRATION

01 The dirt water flows through the shut off valve into the **body filter**

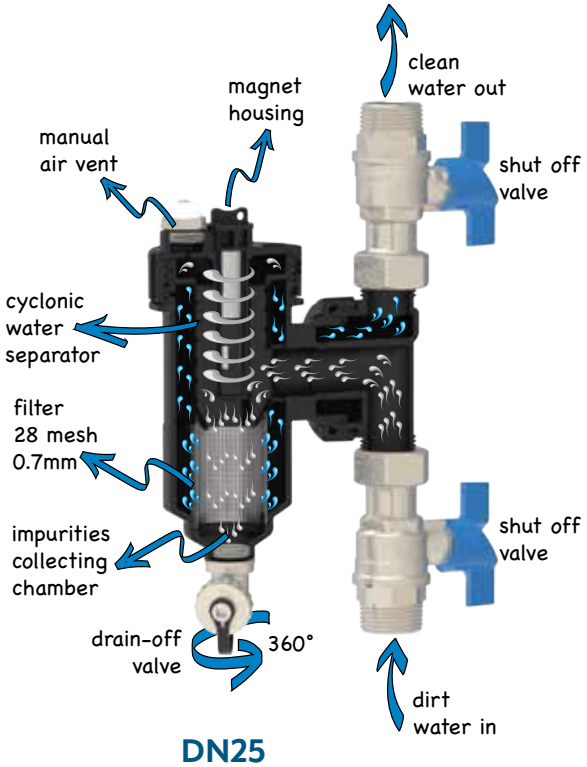
02 Magnetic metallic debris are **attracted by the hi-power magnets**

03 Other impurities are blocked by the **28 mesh (0,7 mm) filter**

04 Clean water reaches the boiler ensuring its **constant protection and correct operation**



DN20



DN25

102V

EvoMAGic magnetic dirt separator filter for vertical installation.
3/4″ M x 3/4″ M flat end

Ø″		Code
DN20 Vertical - 3/4″ M x 3/4″ M	1	1010210000C

102H

EvoMAGic magnetic dirt separator filter for horizontal installation.
3/4″ M x 3/4″ M flat end

Ø″		Code
DN20 Horizontal - 3/4″ M x 3/4″ M	1	1010220000C

K102V/1

EvoMAGic magnetic dirt separator filter for vertical installation.
Features: with M 3/4″ ball valve and F 3/4″ joint

Ø″		Code
DN20 Vertical - 3/4″ M x 3/4″ F	1	1010210010C

K102H/1

EvoMAGic magnetic dirt separator filter for horizontal installation.
Features: with M 3/4″ ball valve and F 3/4″ joint

Ø″		Code
DN20 Horizontal - 3/4″ M x 3/4″ F	1	1010220010C

K102V/2

Magnetic dirt separator filter for vertical installation.
Features: with 2 x M 3/4″ ball valves

Ø″		Code
DN20 Vertical - 3/4″ M x 3/4″ M	1	1010210020C

K102H/2

Magnetic dirt separator filter for horizontal installation.
Features: with 2 x M 3/4″ ball valves

Ø″		Code
DN20 Horizontal - 3/4″ M x 3/4″ M	1	1010220020C

Description	DN	PN (max)	T° (max)	Kvs
102V - K102V/1 - K102V/2 Vertical 90° flow direction	20	4 bar	90 °C	5,5
102V - K102V/1 - K102V/2 Vertical linear flow direction	20	4 bar	90 °C	6,0
102H - K102H/1 - K102H/2 Horizontal	20	4 bar	90 °C	6,0

103

XL

EvoMAGic XL magnetic dirt separator filter with 360° rotating fitting.
1" M x 1" M flat end

Ø"		Code
DN25 - 1" M x 1" M	1	1010310000C

K103/2

XL

Magnetic dirt separator filter with 360° rotating fitting.

Ø"		Code
DN25 - 1" M x 1" M	1	1010310020C
DN25 - 1" M x 3/4" M	1	1010310050C

Description	DN	PN (max)	T° (max)	Kvs
103 XL 360° rotating fitting	25	4 bar	90 °C	10
K103/2 XL 360° rotating fitting	25	4 bar	90 °C	8

THERMOSTATIC BALANCING

VALVES

TBV

Thermostatic Balancing Valve

TBV
Thermostatic Balancing Valve

TBV PLUS
Thermostatic Balancing Valve

TBV ULTRA
Thermostatic Balancing Valve

For use in domestic hot water recirculation systems.

Ensures equal balance and temperature in all sections of the pipeline

Designed to house a sensor for remote temperature control

TBV PLUS is equipped with anti-legionella thermal disinfection function through a second thermostatic cartridge

TBV ULTRA is equipped with an actuator-controlled disinfection function

OPERATING PRINCIPLE

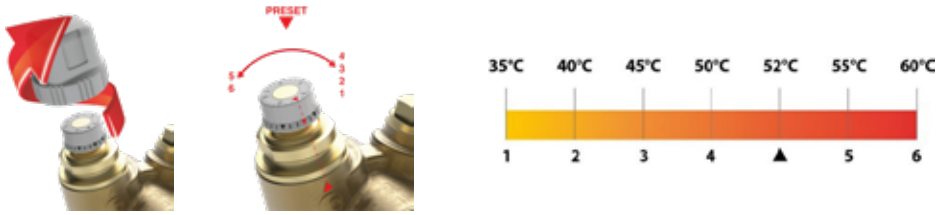
Pettinaroli TBV valves are the new thermal balancing valves for hot water recirculation systems made by lead free corrosion resistant brass conform to European (UBA-List & 4 MS) and USA (NSF) standard requirements.

The TBV Pettinaroli thermal balancing valves represent a valid solution to the problem of management and balancing of centralized domestic hot water (DHW) production and distribution systems equipped with recirculation.
It is not so rare that the utilities furthest from the generator are very disadvantaged and consequently are supplied with domestic hot water that does not reach the minimum desired temperature value and these situations are perceived by users as a malfunction of the system itself. The presence of a thermo-sensitive element (which constitutes the heart of the valve itself) allows the flow in the recirculation network to be automatically balanced depending on whether or not the water temperature exceeds the pre-established value.

Having previously established an equal delivery temperature value for all installed thermostatic balancing valves (for example 52°C), it follows that all distribution columns will be provided with domestic hot water at the desired temperature. Thanks to the presence of an external presetting device external to the valve, the user will be able to configure the desired temperature value that ranges from 35° - 60°C (the factory preset is 52°C).
Pettinaroli's TBV thermal balancing valves are available in the FxF version and are classified into 3 different families: TBV, TBV PLUS (with anti-legionella thermal disinfection function) and TBV ULTRA (with anti-legionella thermal disinfection function controlled by an actuator).

PRESETTING OPERATION

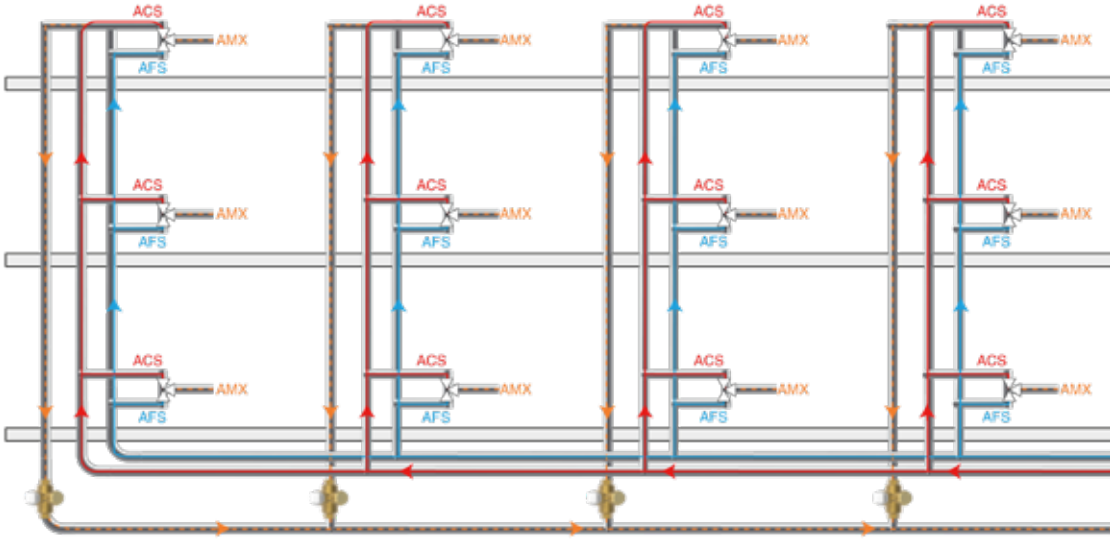
TBV valves has factory presetting at 52°C (corresponding to position ▼ on the selector), the user can change the presetting by following the instructions:

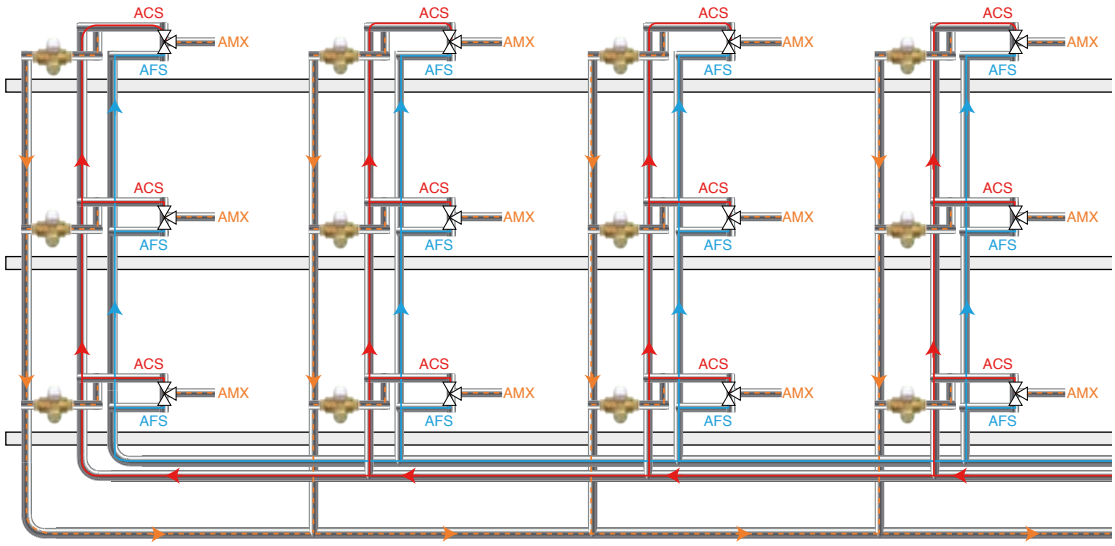


This is a simple but important operation for the proper functioning of the system.

Material antidezincification low-lead brass	Nominal pressure 16 bar	Adjustment range 35 - 60°C	Disinfection Temperature 70°C

INSTALLATION EXAMPLES





TBV
Thermostatic Balancing Valve

TB20

Adjustable thermal balancing valve for sanitary hot water recirculation systems, made by lead free corrosion resistant brass.
PN16, Max working temperature 90°C. Temperature setting range: 35°- 60°C.
Kv max: 1,80.
Connections F x F

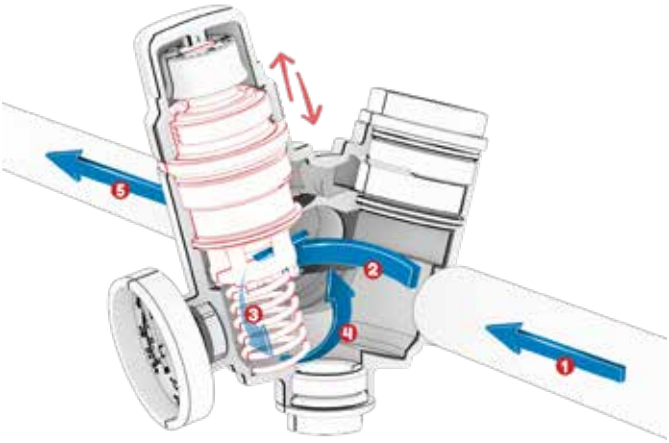
Ø"		Code
1/2" F x 1/2" F	1	3701591510C
3/4" F x 3/4" F	1	3702091510C

Available in NPT version

TB20/2

Adjustable thermal balancing valve for sanitary hot water recirculation systems, made by lead free corrosion resistant brass.
PN16, Max working temperature 90°C. Temperature setting range: 35°- 60°C.
Kv max: 1,80.
Connections M x M

Ø"		Code
3/4" M x 3/4" M	1	3702091520C



TBV PLUS
Thermostatic Balancing Valve

TB30

Adjustable thermal balancing valve for sanitary hot water recirculation systems, made by lead free corrosion resistant brass.
Equipped with Thermal element for automatic anti legionella treatment.
PN16, Max working temperature: 90°C. Temperature setting range: 35°- 60°C.
Disinfection Temperature: 70°C - Kv max: 1,80.
Connections F x F

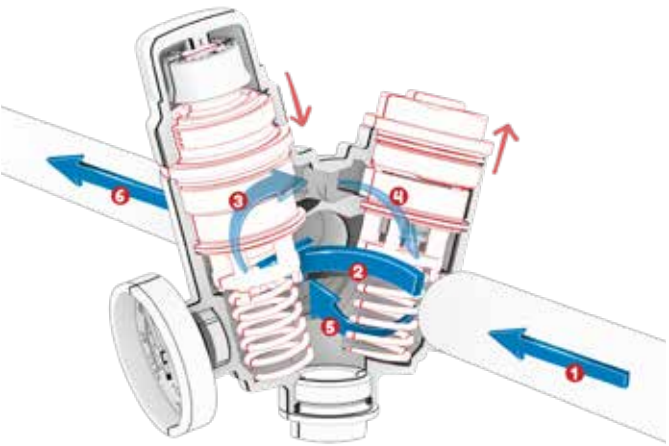
Ø"		Code
1/2" F x 1/2" F	1	3701591520C
3/4" F x 3/4" F	1	3702091530C

Available in NPT version

TB30/2

Adjustable thermal balancing valve for sanitary hot water recirculation systems, made by lead free corrosion resistant brass.
Equipped with Thermal element for automatic anti legionella treatment.
PN16, Max working temperature: 90°C. Temperature setting range: 35°- 60°C.
Disinfection Temperature: 70°C - Kv max: 1,80.
Connections M x M

Ø"		Code
3/4" M x 3/4" M	1	3702091540C



TBV ULTRA
Thermostatic Balancing Valve

TB50

Adjustable thermal balancing valve for sanitary hot water recirculation systems, made by lead free corrosion resistant brass.
Equipped with Antilegionella Disinfection device by thermoelectrical actuator.
PN16, Max working temperature: 90°C. Temperature setting range: 35°- 60°C.
Disinfection Temperature: >=70°C - Kv max: 1,80.
Connections F x F

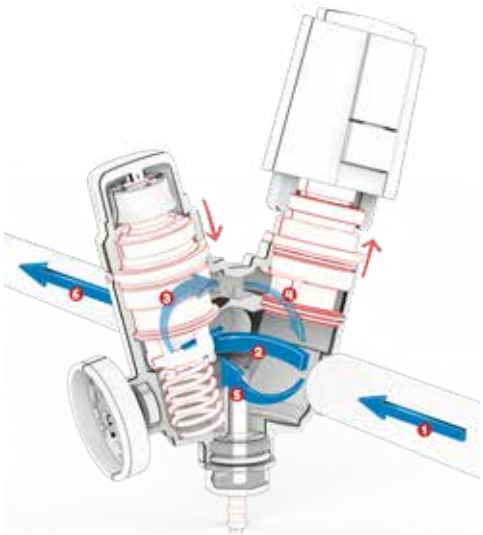
Ø"		Code
1/2" F x 1/2" F	1	3701591530C
3/4" F x 3/4" F	1	3702091550C

Available in NPT version

TB50/2

Adjustable thermal balancing valve for sanitary hot water recirculation systems, made by lead free corrosion resistant brass.
Equipped with Antilegionella Disinfection device by thermoelectrical actuator.
PN16, Max working temperature: 90°C. Temperature setting range: 35°- 60°C.
Disinfection Temperature: >=70°C - Kv max: 1,80.
Connections M x M

Ø"		Code
3/4" M x 3/4" M	1	3702091560C



V54202 - V54402

Thermo-electric actuator ON-OFF-PWM N.C. (normally closed), with adapter VA64. For TB50 series. Stroke 4 mm. Cable 1 m.

V		Code
V542O2 - 230 V - ON/OFF PWM - VA64	100/1	V542020001C
V544O2 - 24 V - ON/OFF PWM - VA64	100/1	V544020001C

A54204 - A544O4

Thermo-electric actuator ON-OFF-PWM N.C. (normally closed), with adapter VA64. For TB50 series. Stroke 4 mm. Cable 1 m. With micro aux. 4 wires.

V		Code
A542O4 - 230 V - ON/OFF PWM - VA64	1	A542O40001C
A544O4 - 24 V - ON/OFF PWM - VA64	1	A544O40001C

T39P/80

Thermometer double scale 0-80°C / 32°-176°F

		Code
0-80°C	100/10	9403900001C

TB100

Union Ball valve DN20 to be used upstream the TB20/2 - TB30/2 - TB50/2

Ø"		Code
1/2" F x 3/4" F swivel nut	1	3701590180C
3/4" F x 3/4" F swivel nut	1	3702090630C

Available in NPT version

TB100CK

Union Ball valve DN20 with integrated check valve to be used downstream the TB20/2 - TB30/2 - TB50/2.

Ø"		Code
1/2" F x 3/4" F swivel nut	1	3701590620C
3/4" F x 3/4" F swivel nut	1	3702090640C

Available in NPT version

52FG/5R

FilterBall ball valve with integrated strainer type FM 28. Red butterfly handle.
Connections: F x F
Features: made of non dezincifiable and lead-free alloy CW511.

Ø"		Code
1/2" F x 3/4" F swivel nut	1	3902292010C
3/4" F x 3/4" F swivel nut	1	3902392010C

Available in NPT version

0TB00CK

Check valve MxF to be used downstream the TB Series

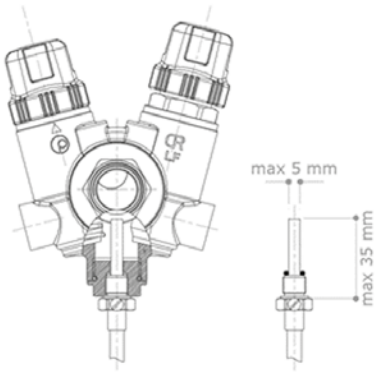
Ø"		Code
1/2" M x 1/2" F	1	1801591420C
3/4" M x 3/4" F	1	1802091420C

Available in NPT version

0TB02

Adaptor/reduction 1/2" M x (M10x1) for probe to monitoring the water temperature.

		Code
1/2" M x M10 F	1	9601590220C



TB Series has a drywell (1/2") that could be used (through an optional reduction 0TB02), to install a probe for remote monitoring of the water temperature.

WATER **METERING**

Energy **SAVER**

Opti**METER**

Energy SAVER

Pettinaroli "Energy Saver" hydronic kit for metering and billing in water installations for air conditioning systems.

Our new "Energy Saver", prefabricated and with a factory warranty, ensures everything you need supplied in a single package. The kit includes our independent pressure balancing and control valve "EVOPICV" with equalpercentage characteristic at a mechanical level for perfect control with the corresponding necessary actuator (thermoelectric or electromechanical), Pettinaroli heating and cooling energy meter, FilterBall (cut-off valve with filter included), by-pass for cleaning the main pipe and cut-off valve, air vent, drain for direct flushing, additional pressure port (before the terminal unit) and insulation included for the complete "Energy Saver" kit.

Energy SAVER *COMPACT*

Pettinaroli "Energy Saver Compact" hydronic kit for metering and billing in water installations for air conditioning systems.

Our new "Energy Saver Compact", prefabricated and with a factory warranty, ensures everything you need supplied in a single package. The kit includes our "DYNASTY" independent pressure balancing and control valve for hard and heavily contaminated water with the corresponding necessary actuator (thermoelectric or electromechanical), Pettinaroli heating and cooling energy meter, FilterBall (cut-off valve with filter included), by-pass for cleaning the main pipe and cut-off valve, isolation valves included for the complete "Energy Saver Compact" kit.

Energy SAVER *SWITCH PLUS*

Pettinaroli "Energy Saver Switch Plus" hydronic kit for metering and billing in water installations for centralized air conditioning and heating systems.

Our new "Energy Saver Switch Plus", prefabricated and with a factory warranty, ensures everything you need supplied in a single package. The kit includes double "DYNASTY" independent pressure balancing and control valve for hard and heavily contaminated water with the corresponding necessary actuator (thermoelectric or electromechanical), hot or cold, thanks to the presence of a 6-way valve "EVOSIX" and its electromechanical actuator, Pettinaroli energy meter for heating and refrigeration, valve with temperature probe. The "Energy Saver Switch Plus" kit allows yyou to select, depending on the needs, the heating or the cooling circuit.

ENERGY SAVER

Pettinaroli "Energy Saver" hydronic kit for metering and billing in water installations for air conditioning systems.

Insulation case available

Ø"		Code
1/2" X 150 l/h (0,66 GPM)	1	
1/2" X 600 l/h (2,64 GPM)	1	
1/2" X 780 l/h (3,43 GPM)	1	
3/4" x 1000 l/h (4,40 GPM)	1	
3/4" x 1500 l/h (6,60 GPM)	1	

ENERGY SAVER COMPACT

Pettinaroli "Energy Saver Compact" hydronic kit for metering and billing in water installations for air conditioning systems.

Insulation case available

Ø"		Code
1/2" x 3/4" x 450 l/h (1,98 GPM)	1	
1/2" x 3/4" x 850 l/h (3,74 GPM)	1	
1/2" x 3/4" x 1000 l/h (4,40 GPM)	1	
1/2" x 3/4" x 1850 l/h (8,15 GPM)	1	

Energy **METER**

Pettinaroli ultrasonic energy meter for heating and cooling applications certified according to MID directive.
Available with different types of communication protocols.
Male threaded flat face connections.

General technical specifications	
Flow sensor Protection class	IP68
Calculator Protection class	IP65 (**EM303**) - IP54 (**EM403**)
Medium in flow sensor	Water
Nominal pressure	PN25
Meter body	CW602N Brass
Temperature sensor cables	1,5 m
Connection cables	1,5 m
Communication protocol	**EM303** - M-bus via cable / M-bus Wireless **EM403** - M-bus via cable / M-bus Wireless / MODBUS / LoRaWan / BACnet

Description	Nominal flow rate [l/h]	Flow rate min [l/h]	Flow rate max [l/h]	Dynamic range	Length [mm]	Connections
EM303	600	6	1200	100:1	110	¾" M flat face
EM303	1500	15	3000	100:1	110	¾" M flat face
EM303	2500	25	5000	100:1	130	1" M flat face
EM403	600	6	1200	100:1	110	¾" M flat face
EM403	1500	15	3000	100:1	110	¾" M flat face
EM403	2500	25	5000	100:1	130	1" M flat face
EM403	3500	35	6000	100:1	260	1 ¼" M flat face
EM403	6000	60	12000	100:1	260	1 ¼" M flat face
EM403	10000	100	20000	100:1	300	2" M flat face

EM303

Pettinaroli ultrasonic energy meter for heating and cooling applications certified according to MID directive. Available with different types of communication protocols.
Male threaded flat face connections.

Ø"		Code
3/4" M - 600 l/h	1	
3/4" M - 1500 l/h	1	
1" M - 2500 l/h	1	

EM403

Pettinaroli ultrasonic energy meter for heating and cooling applications certified according to MID directive. Available with different types of communication protocols.
Male threaded flat face connections.

Ø"		Code
3/4" M - 600 l/h	1	
3/4" M - 1500 l/h	1	
1" M - 2500 l/h	1	
1 1/4" M - 3500 l/h	1	
1 1/4" M - 6000 l/h	1	
2" M - 10000 l/h	1	

OptiMETER

KIT UC/C (A.C.S.) - UC/F (A.F.S.) - METERING UNIT

OptiMETER is the pre-assembled Pettinaroli hydraulic kit with a "made in Italy" guarantee for battery metering of domestic hot water (DHW) or domestic cold water (D.C.W.). It is a perfect solution to separately measure and record the hot water consumption of each home in a centralized heating system (codes: UC/C2 and UC/C3 with red handles) or domestic cold water (codes: UC/F2 and UC /F3 with blue levers).

The kits are modular and can be 2 or 3 homes, modular according to project needs and can be adapted according to the needs of each building. Perfect modularity is always achieved through the dedicated 1.1/4" collectors that are coupled together through the specific 1.1/4" "OUC/C" unions.

Completely insulated kit that allows heat loss to be reduced with always 100% guaranteed safety thanks to the presence of ball valves with built-in non-return valves that prevent the accidental return of contaminated water to the main distribution network. Very simple maintenance thanks to the presence of shut-off valves that ensure total isolation for replacing the water meter or any other operation on the floor.

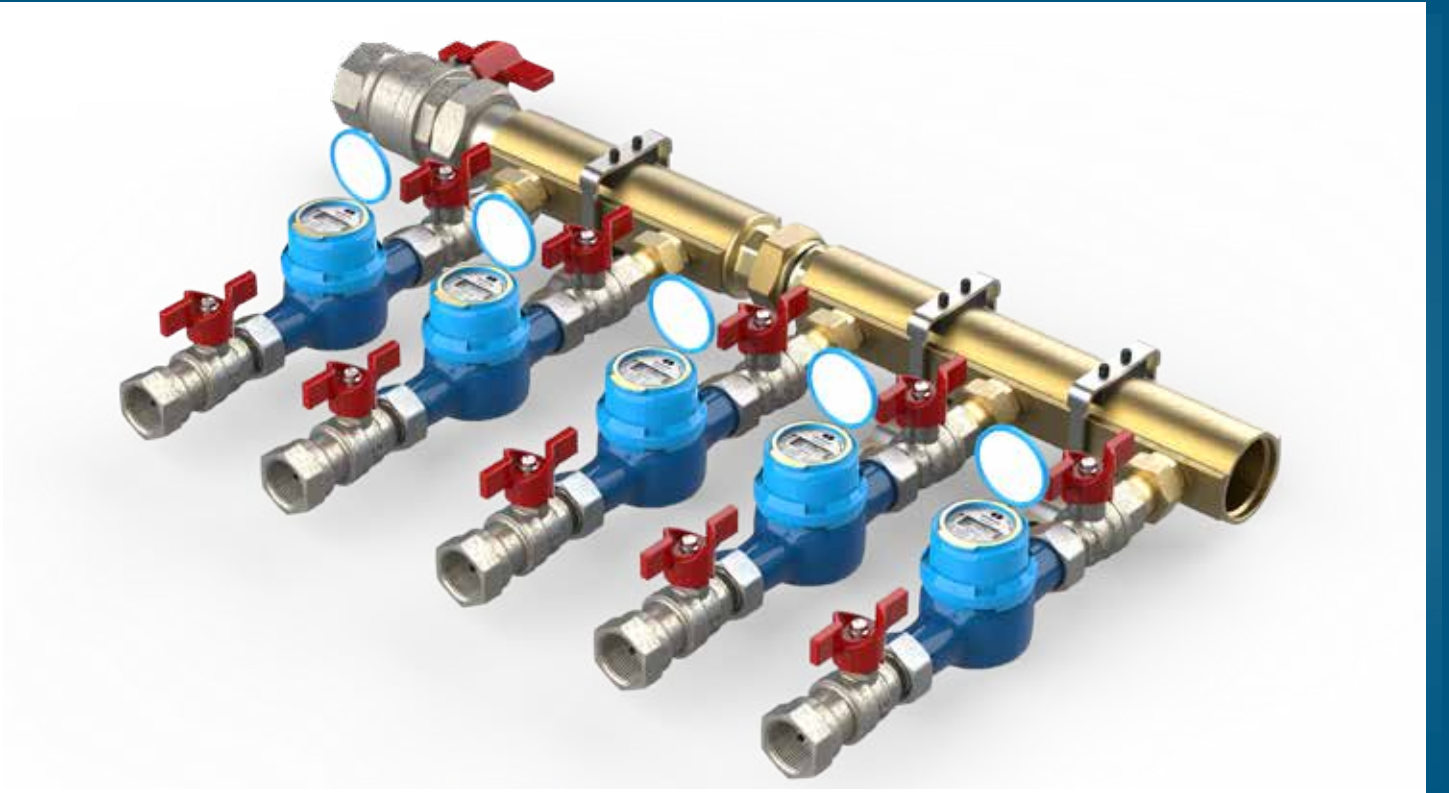
FEATURES & BENEFITS

√ Optimeter UC/C and UC/F hydraulic kits assembled and tested in the factory, 100% completely isolated

√ Reduced installation time and elimination of costly assembly errors. Installation costs are significantly reduced.

√ Very simple and personalized installation according to the characteristics of the project

√ Simplified maintenance thanks to the presence of Pettinaroli insulation that is easy to dismantle



COMPONENTS

- 1 manifold cod. 7036M - 1.1/4"
- 52MET ball valve with 1/2" x 3/4" swivel nut (2 units in the 2-outlet version and 3 units in the 3-outlet kit)
- 42MET ball valve with 3/4" x 3/4"swivel nut with built-in non-return valve (2 units in the 2-outlet version and 3 units in the 3-outlet kit)
- Wall bracket included
- Insulation included
- Plastic extenders

UC/C

UC/FC kit for metering for domestic hot water (DHW) in centralized systems with 2 and 3 outlets. The kit consists of: two shut-off valves, two shut-off valves with non-return valves and a 1 1/4" manifold. Assembly between kits can be done with the "OUC/C" union

Ø"		Code
UC/C2 - 2 outlet - 1 1/4" x 3/4"	1	
UC/C3 - 3 outlet - 1 1/4" x 3/4"	1	

UC/CI

UC/FC kit for metering for domestic hot water (DHW) in centralized systems with 2 and 3 outlets. The kit consists of: two shut-off valves, two shut-off valves with non-return valves and a 1 1/4" manifold. Assembly between kits can be done with the "OUC/C" union
Insulating case: Included

Ø"		Code
UC/C2I - 2 outlet - 1 1/4" x 3/4"	1	6203220040C
UC/C3I - 3 outlet - 1 1/4" x 3/4"	1	

UC/F

UC/FC kit for metering for domestic cold water (DHW) in centralized systems with 2 and 3 outlets. The kit consists of: two shut-off valves, two shut-off valves with non-return valves and a 1 1/4" manifold. Assembly between kits can be done with the "OUC/C" union

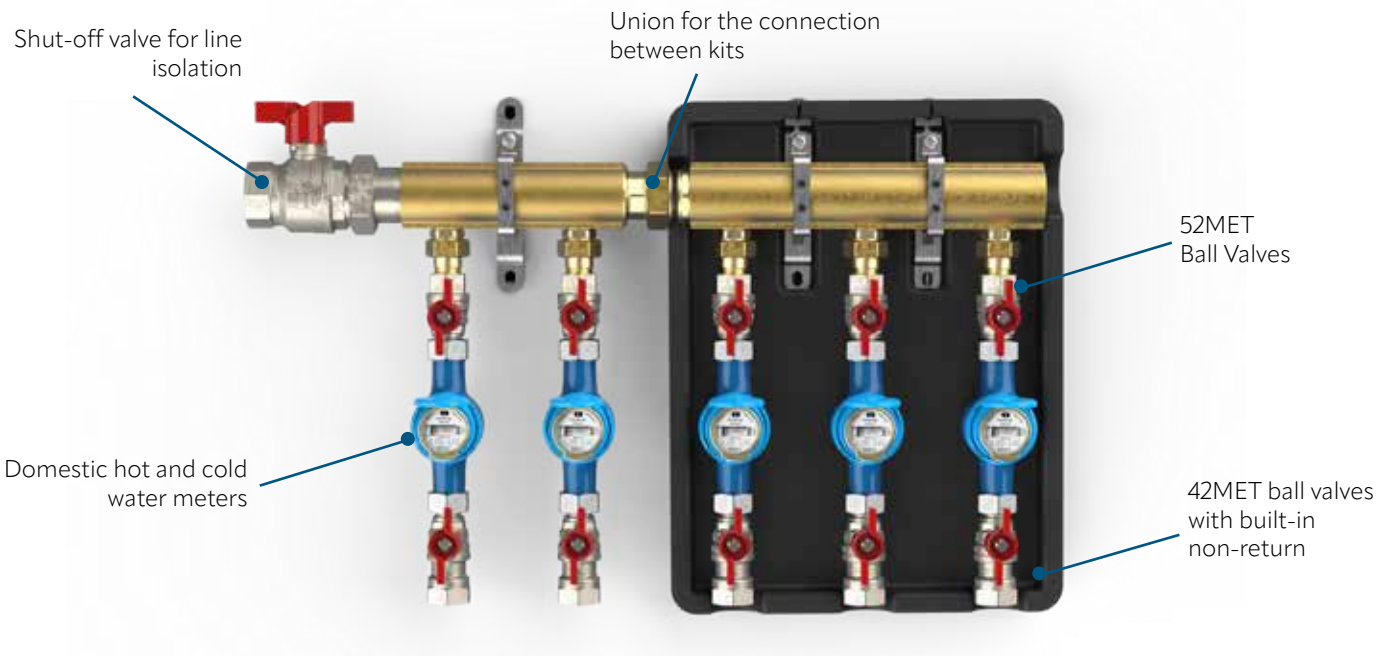
Ø"		Code
UC/F2 - 2 outlet - 1 1/4" x 3/4"	1	
UC/F3 - 3 outlet - 1 1/4" x 3/4"	1	

UC/FI

UC/FC kit for metering for domestic cold water (DHW) in centralized systems with 2 and 3 outlets. The kit consists of: two shut-off valves, two shut-off valves with non-return valves and a 1 1/4" manifold. Assembly between kits can be done with the "OUC/C" union.
Insulating case: Included

Ø"		Code
UC/F2I - 2 outlet - 1 1/4" x 3/4"	1	6203220040C
UC/F3I - 3 outlet - 1 1/4" x 3/4"	1	

APPLICATION EXAMPLE



Kit KCH for CENTRALIZED SYSTEMS WATER METERING

The **KCH Pettinaroli kit with EVOPICV 91** valve allows a **precise regulation of the flow rate** of each house and incorporates the provision for a metering system of the energy actually consumed. This translates into energy savings and maximum comfort!
The kit enhances the benefits of centralized heating: it ensures the lowest energy consumption, improves system efficiency and guarantees the freedom of an individual installation. **It reduces losses and improves comfort**.
Incorporating an energy meter, together with the EVOPICV valve, allows the accounting of the energy actually consumed and at the same time a **fair distribution of the costs** of centralized heating among all users.
The pressure independent dynamic balancing valve **EVOPICV 91 keeps the flow rate in the house constant** and is at the same time a zone valve (when connected to a room thermostat and an on/off actuator) or a regulation and control valve (when connected to a room thermostat and a proportional actuator).

ADVANTAGES

√ Automatic balancing:
- **User:** the total flow rate entering the dwelling is always kept constant
- **Installer:** no need to balance uprights and strands

√ Adjustment of flow rate and housing temperature **with a single valve**.
√ **Quick installation**: strainer, shut-off valves, flow sensor housing, flow control valve and zone valve in one product, ready to install
√ Temperature control with **a room thermostat for the whole house**.
√ **Reduced size** due to valve with integrated flow temperature sensor housing.
√ **Energy metering:** the 110 mm plastic pipe can be removed and replaced by a suitable energy meter, thanks to the two detachable 3/4" fittings.
√ **Wide range of flow rates** (from 15 l / ha 1500 l / h) depending on model

KCH_AY

KCH Pettinaroli metering kit for individual centralized heating applications with EVOPICV 91-1 dynamic balancing valve.

Ø"		Code
KCH01AY - 150 l/h	1	6202020050C
KCH06AY - 600 l/h	1	6202020010C
KCH08AY - 780 l/h	1	
KCH10AY - 1000 l/h	1	6202020070C
KCH15AY - 1500 l/h	1	6202020080C

KCH_BF

KCH Pettinaroli metering kit for individual centralized heating applications with EVOPICV 91 dynamic balancing valve and Filterball.

Ø"		Code
KCH01BF - 150 l/h	1	
KCH06BF - 600 l/h	1	6202020020C
KCH08BF - 780 l/h	1	
KCH10BF - 1000 l/h	1	
KCH15BF - 1500 l/h	1	6202020090C

General technical specifications			
Nominal pressure	10 bar	Fluid	water or water with glycol 50%
Maximum water temperature	90°C	Filtering capacity	Ø 500 µm (KCH_AY) Ø 700 µm (KCH_BF)
Minimum differential pressure	from 25 kPa to 35 kPa	Joints and connections	G 3/4" F
Maximum differential pressure	600 kPa	Temperature measurement	M10 F

52MET

F x F (free nut, flat seat) ball valve for water meter connection. T.E.A. Plus plated.
Anti-Legionella ball with an additional bore on the bottom to avoid water stagnation between in the space between the ball and the body.
Blue buttefly handle.

Ø"		Code	PN
1/2"x1/2"	80/20	3701504030C	16
3/4" x 1/2"	100/10	3702024030C	16
3/4" x 3/4"	100/10	3702224030C	16
1"x 3/4"	80/8	3702504020C	16
1" x 1"	80/8	3702804020C	16

52MET/1

M x F (free nut, flat seat) ball valve for water meter connection. T.E.A. Plus plated.
Anti-Legionella ball with an additional bore on the bottom to avoid water stagnation between in the space between the ball and the body.
Blue buttefly handle.

Ø"		Code	PN
3/4" x 1/2"	100/10	3702024000C	16
3/4" x 3/4"	100/10	3702224000C	16
1" x 3/4"	80/8	3702524000C	16
1" x 1"	80/8	3702824000C	16

52METR

F x F (free nut, flat seat) ball valve for water meter connection. T.E.A. Plus plated.
Anti-Legionella ball with an additional bore on the bottom to avoid water stagnation between in the space between the ball and the body.
Red buttefly handle.

Ø"		Code	PN
1/2" x 1/2"	80/20	3701504130C	16
3/4" x 1/2"	100/10	3702024040C	16
3/4" x 3/4"	100/10	3702224040C	16
1" x 3/4"	80/8		16
1" x 1"	80/8	3702804030C	16

52METR1

M x F (free nut, flat seat) ball valve for water meter connection. T.E.A. Plus plated.
Anti-Legionella ball with an additional bore on the bottom to avoid water stagnation between in the space between the ball and the body.
Red buttefly handle.

Ø"		Code	PN
3/4" x 1/2"	100/10		16
3/4" x 3/4"	100/10	3702224060C	16
1" x 3/4"	80/8		16
1" x 1"	80/8	3702824060C	16

209B

F (free nut) x F angle ballvalve for water meter. Anti-legionella ball with additional bore on the bottom to avoid water stagnation in the space between the ball and the body.
Blue butterfly handle. Nickel plated.

Ø"		Code	PN
DN15 - 3/4"x 1/2"	48/12	3701514230C	16
DN15 - 3/4"x 3/4"	48/12	3702014230C	16

209/1B

F (free nut) x M angle ballvalve for water meter. Anti-legionella ball with additional bore on the bottom to avoid water stagnation in the space between the ball and the body.
Blue butterfly handle. Nickel plated.

Ø"		Code	PN
DN15 - 3/4"x 1/2"	80/8	3701514220C	16
DN15 - 3/4"x 3/4"	48/12	3702014220C	16

209

F (free nut) x F angle ballvalve for water meter. Anti-legionella ball with additional bore on the bottom to avoid water stagnation in the space between the ball and the body.
Red butterfly handle. Nickel plated.

Ø"		Code	PN
DN15 - 3/4"x 1/2"	48/12	3701514210C	16
DN15 - 3/4"x 3/4"	48/12	3702014210C	16

209/1

F (free nut) x M angle ballvalve for water meter. Anti-legionella ball with additional bore on the bottom to avoid water stagnation in the space between the ball and the body.
Red butterfly handle. Nickel plated.

Ø"		Code	PN
DN15 - 3/4"x 1/2"	80/8	3701514200C	16
DN15 - 3/4"x 3/4"	48/12	3702014200C	16

BALL VALVES WITH PROBE HOUSING

52CES

F x F full-flow ballvalve with female M10 probe housing for temperature sensor, loop for anti-extraction seal, with bore anti-tempering seal. Nickel plated.
Red buttefly handle.

Ø"		Code	PN
1/2"	80/20	3701508020C	28
3/4"	48/12	3702008020C	28

52CESB

F x F full-flow ballvalve with female M10 probe housing for temperature sensor; loop for anti-extraction seal, with bore anti-tempering seal. Nickel plated.
Blue buttefly handle.

Ø"		Code	PN
1/2"	80/20		28
3/4"	48/12	3702008030C	28

BALL VALVE FOR WATER METER CONNECTION WITH NON-RETURN DEVICE

42MET

F x F (free nut, flat seat) ball valve for water meter connection; with non-return device. T.E.A. Plus plated.
Anti-Legionella ball with an additional bore on the bottom to avoid water stagnation in the space between the ball and the body.
Blue buttefly handle.

Ø"		Code	PN
3/4" x 1/2"	100/10	3702034000C	16
3/4" x 3/4"	100/10	3702034010C	16

42MET/1

M x F (free nut, flat seat) ball valve for water meter connection; with non-return device. T.E.A. Plus plated.
Anti-Legionella ball with an additional bore on the bottom to avoid water stagnation in the space between the ball and the body.
Blue buttefly handle.

Ø"		Code	PN
3/4" x 1/2"	100/10	3701514000C	16
3/4" x 3/4"	100/10	3702214000C	16
1" x 3/4"	80/8	3702514280C	16

BALL VALVES

51

WRAS desde 1/2" hasta 2"
FM desde 1/2" hasta 2"
VA desde 1/2" hasta 2"

F x F heavy duty full-flow ball valve. Nickel plated.
Reversible red steel handle.
Conform to EN 13828

Ø"		Code	PN
1/4"	120/12	3700715050C	42
3/8"	120/12	3701015050C	42
1/2"	120/12	3701515050C	42
3/4"	48/12	3702015050C	42
1"	36/6	3702515050C	35
1 1/4"	24/4	3703215050C	35
1 1/2"	16/2	3704015050C	35
2"	12/2	3705015050C	35
2 1/2"	3	3707015050C	28
3"	2	3708015050C	28
4"	1	3710015050C	28

Available in NPT version

51CE

F x F end "Extra Compact" full port ball valve
Red steel lever.
Conform to EN 13828

Ø"		Code	PN
1/2"	96/24	3701515980C	28
3/4"	48/12	3702015980C	28
1"	48/8	3702515980C	28
1 1/4"	30/5	3703215980C	20
1 1/2"	24/3	3704015980C	20
2"	16/2	3705015980C	20

FLEXIBLE
hoses

EvoFLEX

CONNECTIONS	SIZE	DN13	DN15	DN19	DN25	DN32
M	3/8″	√				
	1/2″	√	√			
	3/4″	√	√	√		
	1″			√	√	
	1 1/4″					√
UC	3/4″		√			
UP	1/2″	√	√			
	3/4″	√	√	√		
	1″				√	
	1 1/4″					√
UM	1/2″	√	√			
	3/4″	√	√	√		
	1″				√	
UF	1″			√		
US	3/4″	√	√	√		
	1″			√	√	
GF	JG 10		√			
	JG 12	√	√			
	JG 15	√	√			
GFC	JG 10	√				
	JG 15		√			
GM	JG 12	√				
	JG 15		√			

Codification of flexible hoses	
FX	Flexible
X	Left connection
Y	Right connection
Z	Thermal insulation

FX - X - Y - Z

FX X Y Z

- Z: I = Thermal insulation
- Y: M = Male; US = Union female cone 60°; UC = Union female cone 60° elbow; UP = Union female flat end; GF = Push female; GM = Push male; UM = Union male; UF = Union female
- X: M = Male; US = Union female cone 60°; UP = Union female flat end; GF = Push female; GFC = Push female elbow; GM = Push male; UM = Union male; UF = Union female
- FX = Flexible hoses

FXMUM

Flexible hose Male by Union by Male.
DN 13 -15 lenght
min 200 - max 2000 mm
DN 19 -25 lenght
min 250 - max 2000 mm
FXMUMI
With thermal insulation (thick. 9-13-19 mm on demand)

FXUPUS

Flexible hose Union Female (flat) by Union Female (cone 60°- BS5200).
DN 13 -15 lenght
min 200 - max 2000 mm
DN 19 -25 lenght
min 250 - max 2000 mm
FXUPUSI
With thermal insulation (thick. 9-13-19 mm on demand)

FXMUP

Flexible hose Male by Union Female (flat).
DN 13 -15 lenght
min 200 - max 2000 mm
DN 19 - 25 - 32 lenght
min 250 - max 2000 mm
FXMUPI
With thermal insulation (thick. 9-13-19 mm on demand)

FXUSUS

Flexible hose Union Female (cone 60°- BS5200) by Union Female (cone 60°- BS5200).
DN 13 -15 lenght
min 200 - max 2000 mm
DN 19 -25 lenght
min 250 - max 2000 mm
FXUSUSI
With thermal insulation (thick. 9-13-19 mm on demand)

FXMUS

Flexible hose Male by Union Female (cone 60°- BS5200).
DN 13 -15 lenght
min 200 - max 2000 mm
DN 19 -25 lenght
min 250 - max 2000 mm
FXMUSI
With thermal insulation (thick. 9-13-19 mm on demand)

FXMM

Flexible hose Male by Male.
DN 13 -15 lenght
min 200 - max 2000 mm
DN 19 - 25 - 32 lenght
min 250 - max 2000 mm
FXMMI
With thermal insulation (thick. 9-13-19 mm on demand)

FXUPUP

Flexible hose Union Female (flat) by Union Female (flat).
DN 13 -15 lenght
min 200 - max 2000 mm
DN 19 - 25 - 32 lenght
min 250 - max 2000 mm
FXUPUPI
With thermal insulation (thick. 9-13-19 mm on demand)

FXMUF

Flexible hose Male by Union Female.
DN 13 -15 lenght
min 200 - max 2000 mm
DN 19 -25 lenght
min 250 - max 2000 mm
FXMUFI
With thermal insulation (thick. 9-13-19 mm on demand)

FXUSGF

Flexible hose Union Female (cone 60°- BS5200) by push Female (JG).
DN 13 -15 lenght
min 200 - max 2000 mm
DN 19 -25 lenght
min 250 - max 2000 mm
FXUSGFI
With thermal insulation (thick. 9-13-19 mm on demand)

FXMGF

Flexible hose Male by push Female (JG).
DN 13 -15 lenght
min 200 - max 2000 mm
DN 19 -25 lenght
min 250 - max 2000 mm
FXMGFI
With thermal insulation (thick. 9-13-19 mm on demand)

FXUPGM

Flexible hose Union Female (Flat) by push Male (JG).
DN 13 -15 lenght
min 200 - max 2000 mm
DN 19 -25 lenght
min 250 - max 2000 mm
FXUPGMI
With thermal insulation (thick. 9-13-19 mm on demand)

FXUSGM

Flexible hose Union Female (cone 60°- BS5200) by push Male (JG).
DN 13 -15 lenght
min 200 - max 2000 mm
DN 19 -25 lenght
min 250 - max 2000 mm
FXUSGMI
With thermal insulation (thick. 9-13-19 mm on demand)

FXUPGF

Flexible hose Union Female (Flat) by push Female (JG).
DN 13 -15 lenght
min 200 - max 2000 mm
DN 19 -25 lenght
min 250 - max 2000 mm
FXUPGFI
With thermal insulation (thick. 9-13-19 mm on demand)

FXGFGF

Flexible hose push Female (JG) by push Female (JG).
DN 13 -15 lenght
min 200 - max 2000 mm
DN 19 -25 lenght
min 250 - max 2000 mm
FXGFGFI
With thermal insulation (thick. 9-13-19 mm on demand)

FXMGM

Flexible hose Male by push Male (JG).
DN 13 -15 lenght
min 200 - max 2000 mm
DN 19 -25 lenght
min 250 - max 2000 mm
FXMGMI
With thermal insulation (thick. 9-13-19 mm on demand)

FXGMGM

Flexible hose push Male (JG) by push Male (JG).
DN 13 -15 lenght
min 200 - max 2000 mm
DN 19 -25 lenght
min 250 - max 2000 mm
FXGMGMI
With thermal insulation (thick. 9-13-19 mm on demand)

FXMGFC

Flexible hose Male by push Male elbow 90°
DN 13 -15 lenght
min 200 - max 2000 mm
DN 19 -25 lenght
min 250 - max 2000 mm
FXMGFCI
With thermal insulation (thick. 9-13-19 mm on demand)

FXGFGM

Flexible hose push Female (JG) by push Male (JG).
DN 13 -15 lenght
min 200 - max 2000 mm
DN 19 -25 lenght
min 250 - max 2000 mm
FXGFGMI
With thermal insulation (thick. 9-13-19 mm on demand)

FXUSUC

Flexible hose Union Female (cone 60° BS5200) by Union Female (cone 60° BS5200) elbow 90°
DN 13 -15 lenght
min 200 - max 2000 mm
DN 19 -25 lenght
min 250 - max 2000 mm
FXUSUCI
With thermal insulation (thick. 9-13-19 mm on demand)

EVOFLEX NPT

TXMUM NPT

Flexible M NPT x M joint NPT.
Lenght min 305 - max 1200 mm

Ø"		Code
DN13 - 1/2" M NPT x 1/2" M NPT - 305 mm	1	8501300305C
DN13 - 1/2" M NPT x 1/2" M NPT - 610 mm	1	8501300610C
DN13 - 1/2" M NPT x 1/2" M NPT - 915 mm	1	8501300915C
DN13 - 1/2" M NPT x 1/2" M NPT - 1200 mm	1	
DN13 - 1/2" M NPT x 1/2" M NPT - 2000 mm	1	
DN19 - 3/4" M NPT x 3/4" M NPT - 305 mm	1	8501900305C
DN19 - 3/4" M NPT x 3/4" M NPT - 610 mm	1	8501900610C
DN19 - 3/4" M NPT x 3/4" M NPT - 915 mm	1	8501900915C
DN19 - 3/4" M NPT x 3/4" M NPT - 1200 mm	1	8501901200C
DN19 - 3/4" M NPT x 3/4" M NPT - 2000 mm	1	
DN25 - 1" M NPT x 1" M NPT - 305 mm	1	8502500305C
DN25 - 1" M NPT x 1" M NPT - 610 mm	1	8502500610C
DN25 - 1" M NPT x 1" M NPT - 915 mm	1	8502500915C
DN25 - 1" M NPT x 1" M NPT - 1200 mm	1	8502501200C
DN25 - 1" M NPT x 1" M NPT - 200 mm	1	
DN32 - 1 1/4" M NPT x 1 1/4" M NPT - 305 mm	1	
DN32 - 1 1/4" M NPT x 1 1/4" M NPT - 610 mm	1	
DN32 - 1 1/4" M NPT x 1 1/4" M NPT - 915 mm	1	
DN32 - 1 1/4" M NPT x 1 1/4" M NPT - 1200 mm	1	
DN32 - 1 1/4" M NPT x 1 1/4" M NPT - 2000 mm	1	
DN40 - 1 1/2" M NPT x 1 1/2" M NPT - 305 mm	1	
DN40 - 1 1/2" M NPT x 1 1/2" M NPT - 610 mm	1	
DN40 - 1 1/2" M NPT x 1 1/2" M NPT - 915 mm	1	
DN40 - 1 1/2" M NPT x 1 1/2" M NPT - 1200 mm	1	8504001200C
DN40 - 1 1/2" M NPT x 1 1/2" M NPT - 2000 mm	1	
DN50 - 2" M NPT x 2" M NPT - 305 mm	1	8505000305C
DN50 - 2" M NPT x 2" M NPT - 610 mm	1	
DN50 - 2" M NPT x 2" M NPT - 915 mm	1	
DN50 - 2" M NPT x 2" M NPT - 1200 mm	1	8505001200C
DN50 - 2" M NPT x 2" M NPT - 2000 mm	1	

CONNECTIONS	SIZE	DN13	DN19	DN25	DN32	DN40	DN50
M x M joint	1/2"	√					
	3/4"		√				
	1"			√			
	11/4"				√		
	11/2"					√	
	2"						√

ACCESSORIES

V90

Venturi flow rate measurement device.

Ø"		Code
3 mm x 1/2" - 3/4"	1	9600311150C
4,25 mm x 1/2" - 3/4"	1	9600411150C
6 mm x 1/2" - 3/4"	1	9600611150C
7,5 mm x 1/2" - 3/4"	1	9600711150C
9 mm x 1/2" - 3/4"	1	9600910150C
10 mm x 1"	1	9601010150C
10,5 mm x 1/2" - 3/4"	1	9601010160C
12 mm x 1/2" - 3/4"	1	9601210150C
13 mm x 1 1/4"	1	9601210160C
14,5 mm x 1"	1	9601510150C
15 mm x 1 1/2"	1	9601510160C
18 mm x 2"	1	9601810150C
19 mm x 1 1/4"	1	9601910150C
22 mm x 1 1/2"	1	9602210150C
25 mm x 2"	1	9602510150C
31,5 mm x 2"	1	9603210150C

CV90

Adapter pipe fitting with Venturi.
Connections: M x F

Ø"		Code
1/2" x 3 mm - Kv 0,37	1	9601510360C
1/2" x 4,25 mm - Kv 0,72	1	9601610360C
1/2" x 6 mm - Kv 1,38	1	9602010360C
1/2" x 7,5 mm - Kv 2,28	1	9601710360C
1/2" x 9 mm - Kv 3,37	1	9601810360C
3/4" x 9 mm - Kv 3,30	1	9602210360C
3/4" x 10,5 mm - Kv 4,10	1	9602310360C
3/4" x 12 mm - Kv 6	1	9602410360C
1" x 10 mm - Kv 4,30	1	9602610360C
1" x 14,5 mm - Kv 9	1	9602510360C
1 1/4" x 13 mm - Kv 7	1	
1 1/4" x 19 mm - Kv 15,30	1	9603210360C

091D

Differential pressure regulator diaphragm for EvoPICV 81 - 83 - 91 - 93 Series.

Ø"		Code
360 l/h - 81 Series	1	8301510023C
700 l/h - 81 Series	1	8301510003C
780 l/h - 81 Series	1	8301510005C
1000 l/h - 81Series	1	8301510004C
1150 l/h - 81 Series	1	8301510006C
150 l/h - 91 Series	1	8301510020C
600 l/h - 91 Series	1	8301510000C
780 l/h - 91 Series	1	8302010000C
1000 l/h - 91 Series	1	8302010003C
1500 l/h - 91 Series	1	8302010004C
2200 l/h - 3/4" - 83 Series	1	8302510000C
2200 l/h - 1" - 83 Series	1	8302510004C
2700 l/h - 83 Series	1	8302510010C
3000 l/h - 83 Series	1	8303210010C
4000 l/h - 83 Series	1	8302510013C
2200 l/h - 93 Series	1	8302510003C
2700 l/h - 93 Series	1	8302510014C
3000 l/h - 93 Series	1	8303210013C

092D

Differential pressure regulator diaphragm for Dynasty PICV 92 series.

Ø"		Code
1/2" - 150 l/h - 92 Series	1	9301511094C
1/2" - 450 l/h - 92 Series	1	9301511084C
1/2" - 850 l/h - 92 Series	1	9301511200C
3/4" - 1000 l/h - 92 Series	1	9302011094C
3/4" - 1850 l/h - 92 Series	1	9302011084C
1" - 2500 l/h - 92 Series	1	
1" - 3300 l/h - 92 Series	1	
1 1/4" - 5200 l/h - 92 Series	1	
1 1/2" - 9000 l/h - 92 Series	1	
2" - 14000 l/h - 92 Series	1	

B91

Union nut and tail fittings for EvoPICV 93 - 83 Series.
Connections: F

Ø"		Code
3/4" - DN25 - serie 93 - 83	1	9604111090C
1" - DN25 - serie 93 - 83	1	9604111080C
1 1/4" - DN25 - serie 93 - 83	1	9605011080C
1 1/4" - DN40 - serie 83	1	9605711020C
1 1/2" - DN40 - serie 83	1	9605711010C
1 1/2" - DN50 - serie 83	1	9607211080C
2" - DN40 - serie 83	1	9606811010C
2" - DN50 - serie 83	1	9607211010C

B91/2

Union nut and tail fittings for EvoPICV 93 - 83 Series.
Connections: M

Ø"		Code
3/4"	1	9604111110C
1"	1	9604111100C
1 1/4"	1	

091CV

Control valve headwork for EvoPICV 91 Series.

Ø"		Code
150 l/h	1	9301511110C
600 l/h	1	9301511020C
780 l/h	1	
1000 l/h	1	
1500 l/h	1	

093CV

Control valve headwork for EvoPICV 93 Series.

Ø"		Code
2200 l/h	1	
2700 l/h	1	
3000 l/h	1	

T90RB

Pressure ports.

Ø"		Code
1/4"	1	6000715000C

081PR1

Presetting device for EvoPICV 83 series.

Ø"		Code
081PR1 - 6000 l/h DN40	1	9605010130C
081PR1 - 9000 l/h DN40	1	9605010140C
081PR1 - 11000 l/h DN40	1	9605010150C
081PR1 - 12000 l/h DN50	1	9605010110C
081PR1 - 18000 l/h DN50	1	9605010120C

XT4L

By-pass valve for X4 series. 40 mm C2C distance. Double ball valve.
Long tail connection
Connections: Euroconus Patent: EP2990702B1 - US9683677 B2

Ø"		Code
XT4LHR	1	
XT4LCB	1	

XT4/

By-pass valve for X4 series. 40 mm C2C distance. Double ball valve.
Connections: Euroconus
Patent: EP2990702B1 - US9683677 B3

Ø"		Code
XT4/HRP (3/4" x 18) x (3/4" x 18)	1	
XT4/CBP (3/4" x 18) x (3/4" x 18)	1	

XT4N

By-pass valve (40 mm C2C distance).
Connections: euroconus

Ø"		Code
XT4N (3/4" x 18) x (3/4" x 18)	1	2902090520C

XT3

By-pass valve (40 mm C2C distance) for XT600 series.
Connections: 3/4" M x euroconus

Ø"		Code
XT3BP - 3/4" x 3/4"	1	2902010540C

XT3/1

By-pass valve (40 mm C2C distance) for XT600 series.
Connections: 3/4" F x euroconus

Ø"		Code
XT3B/1 - (3/4" x 18) x 1/2"	1	2902010410C

XT3BP

By-pass valve (80 mm C2C distance) for XT800 series.
Connections: 1 1/8" flat seat

Ø"		Code
1 1/8"	1	2902510540C

XT7BP

Flushing by-pass valve (70 mm C2C distance) for XT700 Series. Connections: 3/4" M Euroconus x 1 1/8" with OR seat. Features: To be used with B90CIL

Ø"		Code
3/4" M (3/4" x 18) x 1 1/8"	1	2902090800C

BXT3

Union flat seat nut and tail fittings, with washer for Art. XT3BP.
Connections: F

Ø"		Code
1/2" F x 1 1/8" F	1	9603211110C
3/4" F x 1 1/8" F	1	9603211120C
1" F x 1 1/8" F	1	9602511120C

BXT3/2

Union flat seat nut and tail fittings, with washer for Art. XT3BP.
Connections: M

Ø"		Code
1/2" M x 1 1/8" F	1	9603211130C
3/4" M x 1 1/8" F	1	9603211140C

B90CIL

Female union nut and tail for XT7BP and all terminal sides with o-rings.

Ø"		Code
1/2" F x 1 1/8" F	1	9603211180C
3/4" F x 1 1/8" F	1	9603291170C
1" F x 1 1/8" F	1	9603990000C

1020B

Union and cap fittings for XT Series kit (terminal side) with o-rings.
Connections: M Union

Ø"		Code
1/2" M x 1 1/8" F	1	9603211100C
3/4" M x 1 1/8" F	1	9603211090C

TAP93

Cap for EvoPICV 83 - 93 Series.

		Code
	1	9402510090C

TAP81

Cap for 81 Series.

		Code
	1	9401590070C

0760W

Shut-off handwheel for 91 - 93 series.

	Code
1	8203505060C

092

Shut-off handwheel for 92 Dynasty series.

Ø"		Code
1/2" - 3/4"	1	
1" - 1 1/4" - 1 1/2" - 2"	1	

MDPS2

Digital manometer for start-up verification on PICV / Terminator and for flow reading on venturi's orifice devices.
Features: App Available for Android Smartphones.

	Code
1	8000000080C

MDP

Digital differential pressure meter.
Pressure range: 0 - 6,9 bar

		Code
	1	6400000380C

091SETP

Maintenance kit for EvoPICV 91 - 93 Series.
The box includes:
- tools for valve opening / closing
- tools for diaphragm extraction

	Code
1	6400000410C

DEMOKIT

Working demo kit for PICV.
Includes circulation pump, PICV, manual balancing valve, visual flow meters, by-pass and accessories.

	Code
1	

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