



HVAC Products

# POS



Pettinaroli Commissioning Solutions



## Commissioning kits for terminal units

Pettinaroli's versatile range of **valve assemblies for fan coils, chilled beams and other hydronic terminal units** offers significant **benefits over standard products** - for specifiers, installers, 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.



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### DESIGNERS & SPECIFIERS

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**Fewer components** for each project.

**Flexibility** in the type of pipe specified.

**Choice of valve location**, close coupled with terminal unit, or mounted in pipework.

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### INSTALLERS

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**Everything required** for a successful connection assembly to a terminal unit is **supplied in one package**.

**Fewer components** to be ordered for each project.

Each unit can be **tagged and individually identified** to each terminal unit.

The unit may be orientated in the **horizontal or vertical** plane on site.

**Euroconus connections** allow various pipe types and diameters to be used for the runs connecting terminal units.

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### COMMISSIONING & MAINTENANCE

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The **Filterball® strainer** is easily accessed without drain down.

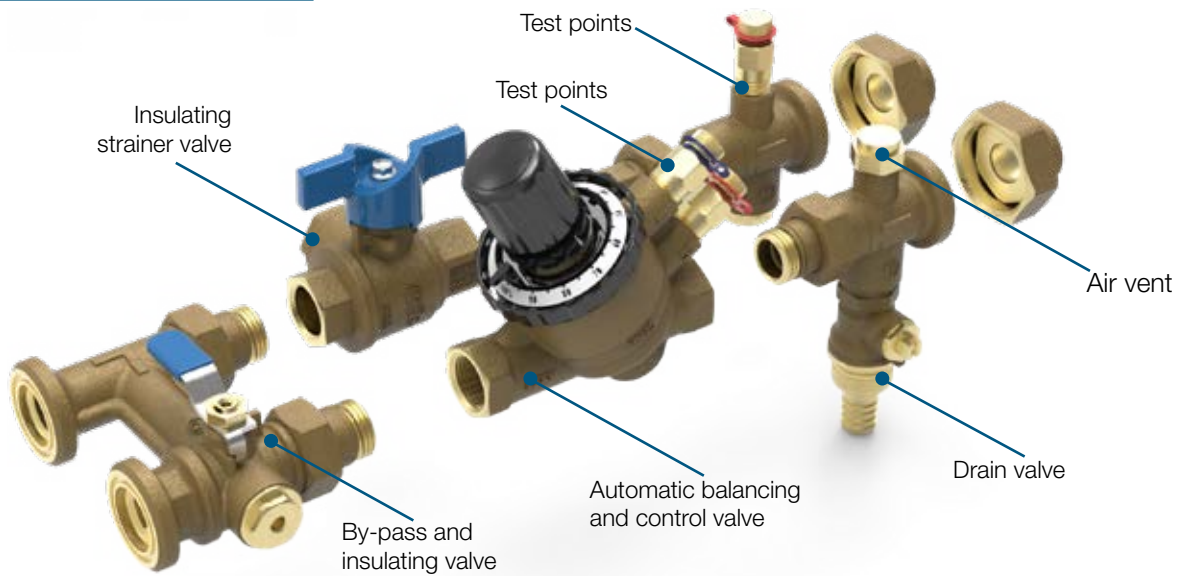
**All valves** required for commissioning of the terminal unit are **in one location**.

**Insulation boxes (available on request)** can be **opened and re-sealed** in seconds with no damage to pipe lagging.

**Automatic balancing valves** reduce commissioning time to flushing and verification.

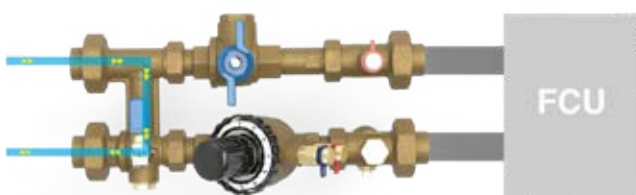
Pressure independent valves offer **full authority temperature control and maximum flow rate limiting**.

## TECHNICAL SPECIFICATIONS



- ✓ **CONNECTING KIT** FOR TERMINAL UNITS ( fan-coils, chilled beams and air handling units )
- ✓ **REDUCED ON-SITE LABOUR TIME**
- ✓ **FACTORY TESTED FOR MINIMUM LEAKAGE RISK**
- ✓ **100% MADE IN ITALY** WITH PATENTED TECHNOLOGY
- ✓ **FLEXIBLE AND BESPOKE CONFIGURATION** ( automatic, manual balancing )
- ✓ **NO FLUSHING THRU CONTROL VALVE** ( 100% safe )

### FLUSHING OF MAIN PIPE LINE



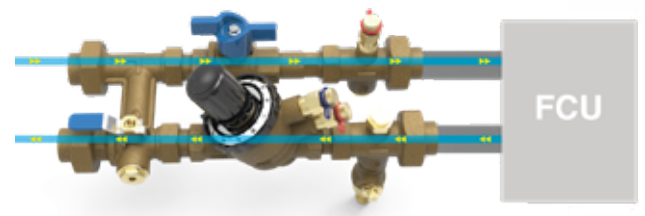
### REVERSE BACK FLUSHING



### DIRECT BACK FLUSHING



### READY FOR COMMISSIONING



## XT600 60/40mm



Flushing bypass with pressure independent control valve 91 Series and Filterball shut off valve with integrated strainer.

60/40 mm pipe centres

Filtering capacity 700 µm

Ø

1/2" X 150 l/h

1/2" X 600 l/h

1/2" X 780 l/h

## XT601 60/40mm



Flushing bypass with pressure independent control valve 91 Series and Filterball shut off valve. Coil connection set with blow down valve and option port.

60/40 mm pipe centres

Filtering capacity 700 µm

Ø

1/2" X 150 l/h

1/2" X 600 l/h

1/2" X 780 l/h

## XT700 70mm



Flushing bypass with pressure independent control valve 91 Series and Filterball shut off valve with integrated strainer.

70 mm pipe centres

Filtering capacity 700 µm

Ø

1/2" X 150 l/h

1/2" X 600 l/h

1/2" X 780 l/h

3/4" X 1000 l/h

3/4" X 1500 l/h

## XT701 70mm



Flushing bypass with pressure independent control valve 91 Series and Filterball shut off valve. Coil connection set with blow down valve and option port.

70 mm pipe centres

Filtering capacity 700 µm

Ø

1/2" X 150 l/h

1/2" X 600 l/h

1/2" X 780 l/h

3/4" X 1000 l/h

3/4" X 1500 l/h

## XT702 70mm



Flushing bypass with pressure independent control valve 92 Series and Filterball shut off valve with integrated strainer.

70 mm pipe centres

Filtering capacity 700 µm

Ø

1/2" X 150 l/h

1/2" X 450 l/h

1/2" X 850 l/h

3/4" X 1000 l/h

3/4" X 1850 l/h

1" x 3/4" X 2500 l/h

1" x 3/4" X 3300 l/h

### XT704 70mm



Flushing bypass with pressure independent control valve 92 Series and Filterball shut off valve. Coil connection set with blow down valve and option port.

70 mm pipe centres  
Filtering capacity 700 µm

Ø

1/2" X 150 l/h  
1/2" X 450 l/h  
1/2" X 850 l/h  
3/4" X 1000 l/h  
3/4" X 1850 l/h  
1" X 2500 l/h  
1" X 3300 l/h

### XT800 80mm



Flushing bypass with pressure independent control valve 91 Series and Filterball shut off valve with integrated strainer.

80 mm pipe centres  
Filtering capacity 700 µm

Ø

1/2" X 150 l/h  
1/2" X 600 l/h  
1/2" X 780 l/h  
3/4" X 1000 l/h  
3/4" X 1500 l/h

### XT801 80mm



Flushing bypass with pressure independent control valve 91 Series and Filterball shut off valve. Coil connection set with blow down valve and option port.

80 mm pipe centres  
Filtering capacity 700 µm

Ø

3/4" X 600 l/h  
3/4" X 780 l/h  
3/4" X 1000 l/h  
3/4" X 1500 l/h

### XT850 80mm



Flushing bypass with pressure independent control valve 93 Series and Filterball shut off valve with integrated strainer.

80 mm pipe centres  
Filtering capacity 700 µm

Ø

1" X 3/4" X 2200 l/h  
1" X 3/4" X 2700 l/h  
1" X 3/4" X 3000 l/h

### XT851 80mm



Flushing bypass with pressure independent control valve 93 Series and Filterball shut off valve. Coil connection set with blow down valve and option port.

80 mm pipe centres  
Filtering capacity 700 µm

Ø

1" X 2200 l/h  
1" X 2700 l/h  
1" X 3000 l/h

# KIT FOR LINE ENDS

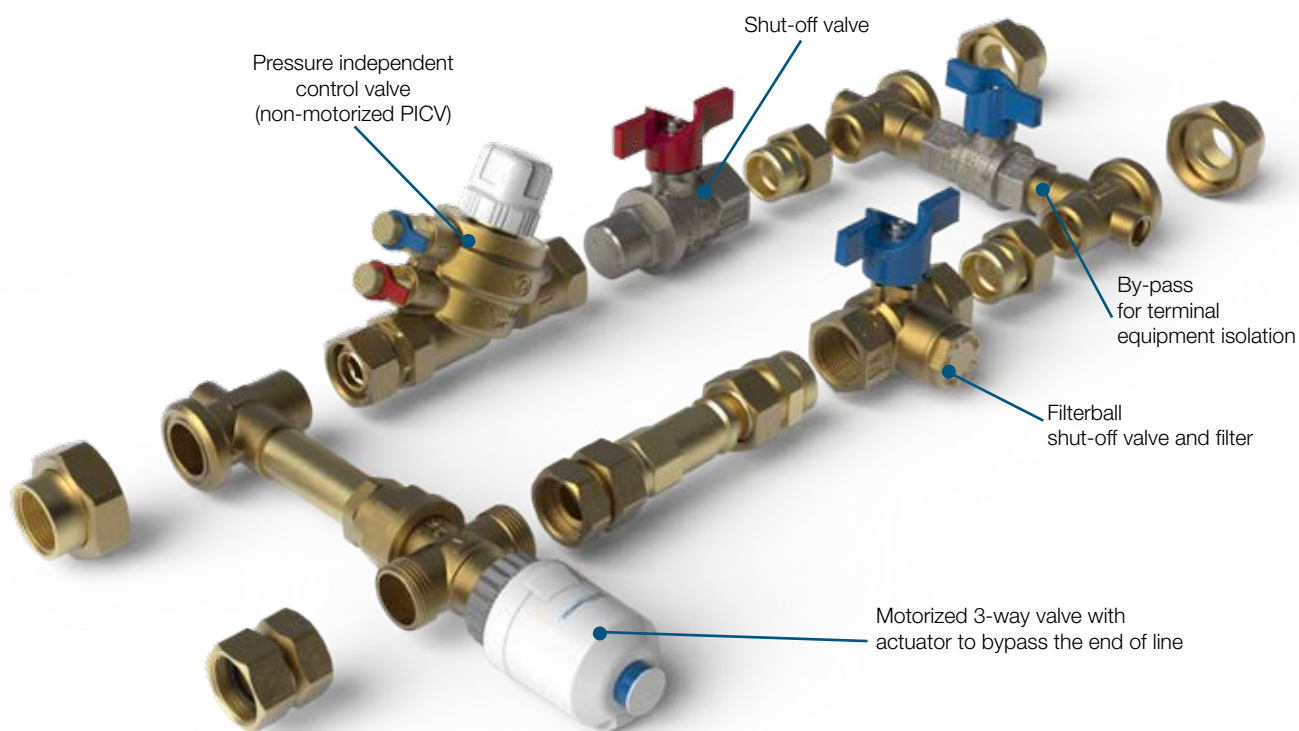
## TECHNICAL SPECIFICATIONS

The new **XT1314** and **XT1314G** kits are **born to solve the daily problems** our customers face during the installation phase on site, when they are forced to mount all the elements and accessories individually at the end of the line, performing manually motorized bypasses with 3-way valves in order to always ensure a minimum water circulation at the last fancoil of each line when all the terminal units are closed.

This new family of Pettinaroli kits is realized with the new **Dynasty** which is our compact PICV, easy to maintain and suitable to operate in very polluted water, although the flow control must be done through the **motorized 3-way valve** (ref. 663 + actuator) present in the kit. In this case our PICV Dynasty will work only as a flow limiting valve and for the start-up (pre-setting of the maximum flow).

Our prefabricated, **100% factory tested** and guaranteed hydronic kits always ensure everything needed for a successful connection, supplied in a single package. In addition, off-site assembly and testing significantly **reduces installation time** and virtually eliminates any possible error.

Insulating case available and already included in art. XT1314G



### XT1314 169mm



PCS hydraulic kit with 3-way motorized control valve for by-pass, DYNASTY dynamic balancing valve, Pettinaroli FilterBall (ball valve with built-in filter) and by-pass for terminal unit isolation and cleaning

130 mm wheelbase

Filtering capacity 700 µm

Ø

3/4" X 1000 l/h

3/4" X 1850 l/h

# KIT FOR AIR CONDITIONERS

## TECHNICAL SPECIFICATIONS

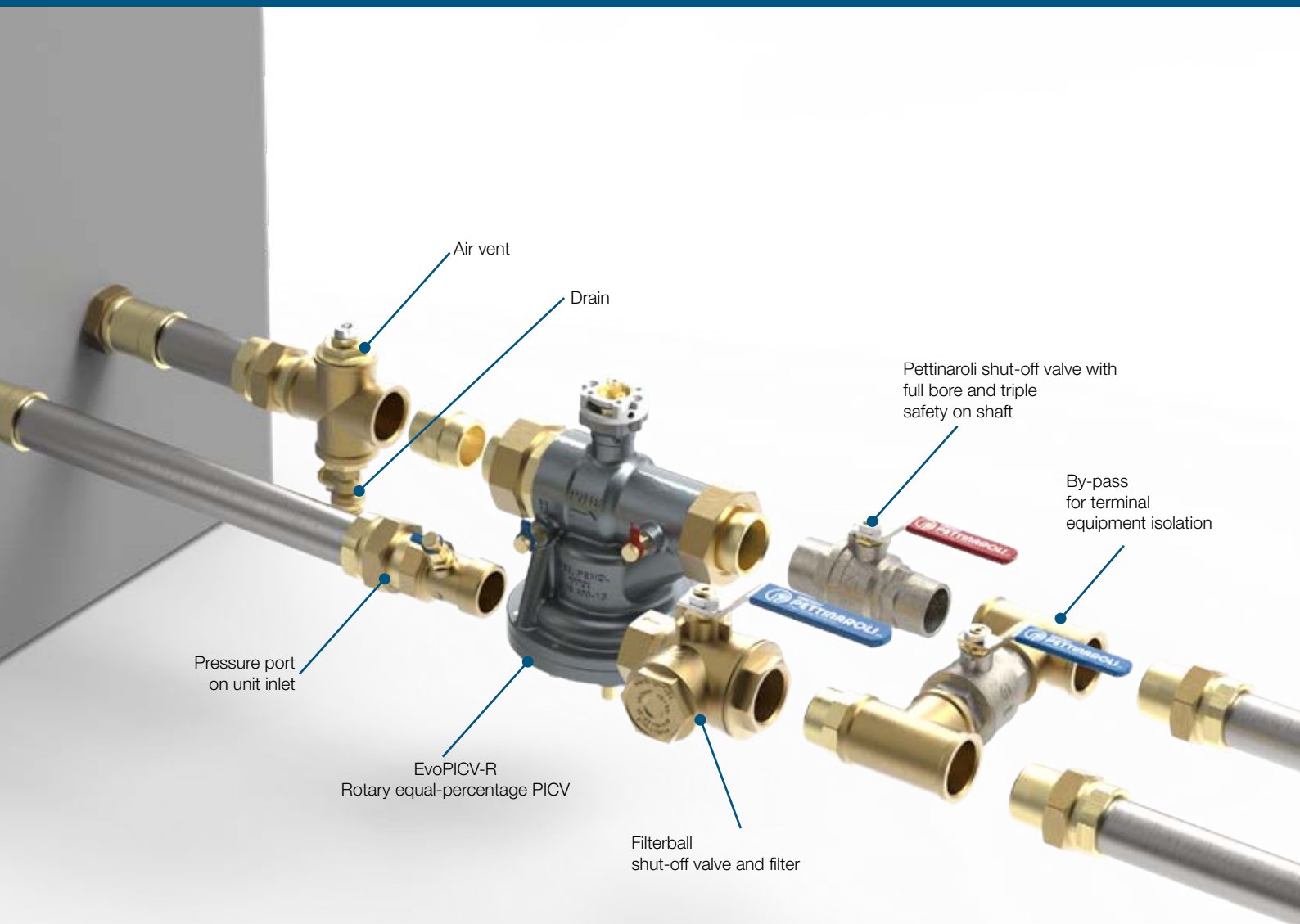
New Pettinaroli kits for large capacity terminal units, such as air conditioners and chillers, completely assembled from the factory and with maximum flow rates up to 18,000 l/h (79.25 GPM).

The kits are available in 1.1/4", 1.1/2" and 2" sizes and consist of our EvoPICV-R 83 series rotary and isopercentage dynamic balancing valves, Pettinaroli Filterball, accessories and shut-off valves with triple safety on shaft and full bore.

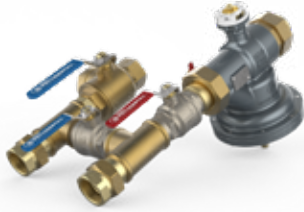
Kits can be supplied in multiple configurations and with numerous options and accessories, to provide a solution to all types of needs in industrial air conditioning systems.

Our prefabricated, 100% factory-tested hydronic kits always ensure everything needed for a successful connection in a single package. In addition, off-site assembly and testing greatly reduces installation time and virtually eliminates any potential mistake.

Insulating case art. 083IHV available for PICV.



## XT1680 168mm



PCS hydraulic kit with dynamic balancing valve EvoPICV-R series 83, isopercentual and rotary, Pettinaroli FilterBall (ball valve with built-in filter), by-pass and full bore shut-off valve for terminal unit isolation and cleaning.

Insulating case 083IHV available for individual PICV

168 mm wheelbase

Filtering capacity 700 µm

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1 1/4" X 1 1/4" x 6000 l/h

## XT1681 168mm



PCS hydraulic kit with dynamic balancing valve EvoPICV-R series 83, isopercentual and rotary, Pettinaroli FilterBall (ball valve with built-in filter), by-pass and full bore shut-off valve for terminal unit isolation and cleaning, pressure taps at the inlet of the unit, drain and air vent included in the kit.

Insulating case 083IHV available for individual PICV

168 mm wheelbase

Filtering capacity 700 µm

Ø

1 1/4" X 1 1/4" x 6000 l/h

## XT1682 168mm



PCS hydraulic kit with dynamic balancing valve EvoPICV-R series 83, isopercentual and rotary, Pettinaroli FilterBall (ball valve with built-in filter), by-pass and full bore shut-off valve for terminal unit isolation and cleaning, pressure taps at the unit inlet.

Insulating case 083IHV available for individual PICV

168 mm wheelbase

Filtering capacity 700 µm

Ø

1 1/4" X 1 1/4" x 6000 l/h

## XT1690 169mm



PCS hydraulic kit with dynamic balancing valve EvoPICV-R series 83, isopercentual and rotary, Pettinaroli FilterBall (ball valve with built-in filter), by-pass and full bore shut-off valve for terminal unit isolation and cleaning. Insulating case 083IHV available for individual PICV

169 mm wheelbase

Filtering capacity 700 µm

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1 1/2" X 1 1/2" x 9000 l/h



**XT2070** 207mm

PCS hydraulic kit with dynamic balancing valve EvoPICV-R series 83, isopercentual and rotary, Pettinaroli FilterBall (ball valve with built-in filter), by-pass and full flow shut-off valve for terminal unit isolation and cleaning. Insulating case 083IHV available for individual PICV

207 mm wheelbase

Filtering capacity 700 µm

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2" X 2" x 11000 l/h

2" X 2" x 12000 l/h

2" X 2" x 18000 l/h

**XT880** 80mm

PCS hydraulic kit with Dynasty dynamic balancing valve, Pettinaroli FilterBall (ball valve with built-in filter), cleaning by-pass. Insulating case available

80 mm wheelbase

Filtering capacity 700 µm

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3/4" F X 1" F X 2500 l/h

3/4" F X 1" F X 3300 l/h

1" F X 1" F X 5200 l/h

**XT881** 80mm

PCS hydraulic kit with Dynasty dynamic balancing valve, Pettinaroli FilterBall (ball valve with built-in filter), cleaning by-pass, drain valve with venting option and additional pressure taps. Insulating case available

80 mm wheelbase

Filtering capacity 700 µm

Ø

1" F X 1" F X 2500 l/h

1" F X 1" F X 3300 l/h

## ACTUATORS

### THERMO ELECTRIC ACTUATOR

#### ON/OFF PWM N.C.



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



Code	Volt	Stroke	for PICV series	Notes
A544P3	0-10V	4 mm	91 / 92 (1/2"-3/4")	Proportional actuator 24V (0-10V) with adapter and 1 meter 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 cable included

### ELECTROMOTIVE ACTUATOR



Code	Volt	Stroke	for PICV series	Notes
VA7481	24V	6,3 mm	91 / 92 / 93	Electric 3-point actuator. Adapter not included. Art. 0A7010 for 91 / 92 (1/2" y 3/4") series. Art. 0A748X for 92 (1" y 1 1/4") and 93 series.
VA7481	230V	6,3 mm	91 / 92 / 93	Electric 3-point actuator. Adapter not included. Art. 0A7010 for 91 / 92 (1/2" y 3/4") series. Art. 0A748X for 92 (1" y 1 1/4") and 93 series.
VA7483	0-10V	6,3 mm	91 / 92 / 93	Electric proportional actuator. Adapter not included. Art. 0A7010 for 91 / 92 (1/2" y 3/4") series. Art. 0A748X for 92 (1" y 1 1/4") and 93 series.
VA7484	0-10V	6,3 mm	91 / 92 / 93	Electric proportional actuator. Adapter not included. Art. 0A7010 for 91 / 92 (1/2" y 3/4") series. Art. 0A748X for 92 (1" y 1 1/4") and 93 series.



Code	Volt	Stroke	for PICV series	Notes
VM060	0-10V	6,5 mm	91 / 92 / 93	Control valve stroke recognition system. Proportional actuator 0-10V, fail safe and feedback signal with adapter included.
VM000	0-10V	6,5 mm	91 / 92 / 93	Control valve stroke recognition system. Proportional actuator 0-10V, feedback signal with adapter included.



Code	Volt	Stroke	for PICV series	Notes
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 proportional 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 proportional control. Support included - Nm 8. With flow reduction through angular limiting system.



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

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## INSULATING CASES

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### IHV



Heating insulating case for XT series

### ICV



Cooling insulating case for XT series

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## FLEXIBLE HOSES

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### MULTIPLE CHOICE OF FLEXIBLE HOSES



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## INSTRUMENTS

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### FLOW RATE AND DIFFERENTIAL PRESSURE INSTRUMENT



Wireless data connection - easy download.



# **PETTINAROLI** GROUP



**Jomar Group**  
Warren - USA

**Hydronic Components HCl**  
Warren - USA



**Pettinaroli Denmark**  
Middelfart - DEN

**Pettinaroli UK**  
Birmingham - UK

**TSM Galvanocromo**  
Gozzano - ITA

**FRATELLI PETTINAROLI**  
S.Maurizio d'Opaglio - ITA

**Pettinaroli Suisse**  
Montreux - SUI

**Pettinaroli France**  
Carmaux - FRA



**Pettinaroli Middle East**  
Dubai - UAE