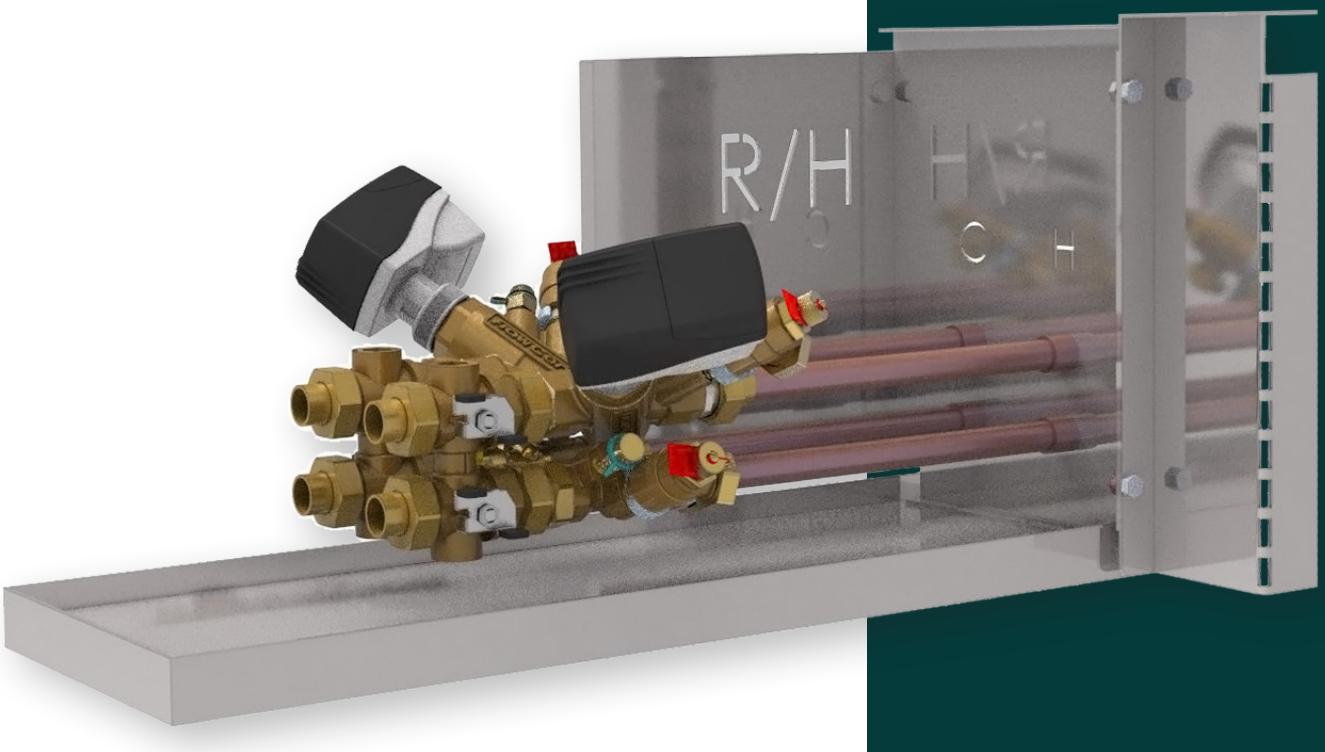
FloControl

COMPACT PRE-ASSEMBLED FCU

VALVE SETS

- DESIGNED, ASSEMBLED AND TESTED IN THE UK
- ACHIEVE A-RATED CONSULTANT APPROVALS
- EASY TO FIT AND COMMISSION
- WARRANTY AND TRAINING



FloControl

FLOCONTROL TAKES FCU VALVE SETS TO A NEW LEVEL OF COMPACTNESS AND FLEXIBILITY

FloControl offers a comprehensive range of valves, pipeline products and pre-assembled system solutions for Terminal Units.

Our products and solutions provide superior environmental comfort while reducing the capital, installation, commissioning and running cost of heating and cooling systems, as well as the building's carbon footprint.

Since 2010, FloControl has successfully completed a wide range of new build or refurbishment projects in the UK, which include some of the most prestigious office buildings, sporting arenas, schools, universities, hospitals, police stations, high technology warehouses and factories.

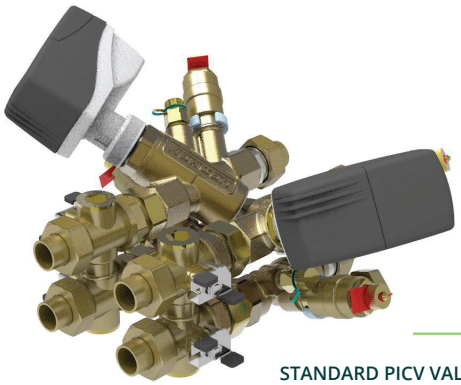
FloControl works closely with world class global valve manufacturers FlowCon and VIR, and a network of specialist supply partners, to deliver off the shelf and bespoke FCU, Chilled Beam, Radiant Panel, AHU and Trench Heater valve set solutions to meet specific customer requirements.

Projects increasingly ask for pre-assembled valve set solutions that fit directly onto FCUs. FloControl designs valve set assemblies in close collaboration with FCU manufacturers to project-specifications, addressing space and duty requirements while supporting project engineers to obtain consultant approvals. Valve Sets are assembled from FloControl's UK stock and thoroughly tested in our facility in Burnley. Shipments are carefully labelled and packed for easy installation on-site. Local assembly and stock enables a fast turn-around of project orders with maximum design flexibility, leveraging the expert knowledge of the experienced FloControl team, helping project engineers to achieve A-grade consultant approvals and to deliver their projects on time and in budget.

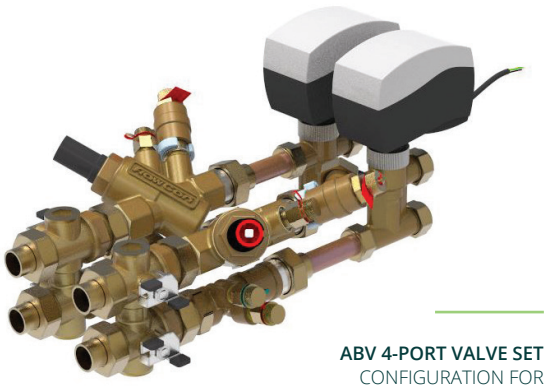
The Compact PICV and ABV-4-Port FCU Valve Sets are easy to select and are supplied pre-assembled, tested, set and ready to fit.

They fit directly onto the FCU with 40mm centres over the FCU drip tray. Either vertically or horizontally configured, the Compact Range is particularly suited for small spaces and slimline units. A wide range of connections and extensions are available, e.g. air vents and strainers, while the compact size of the Valve Set is maintained.

The Valve Sets include the valves and components required to dynamically flush the FCU backward, forward or externally, in accordance with BSRIA BG29, and to purge, vent, automatically balance the system and control the temperature with 100% authority.

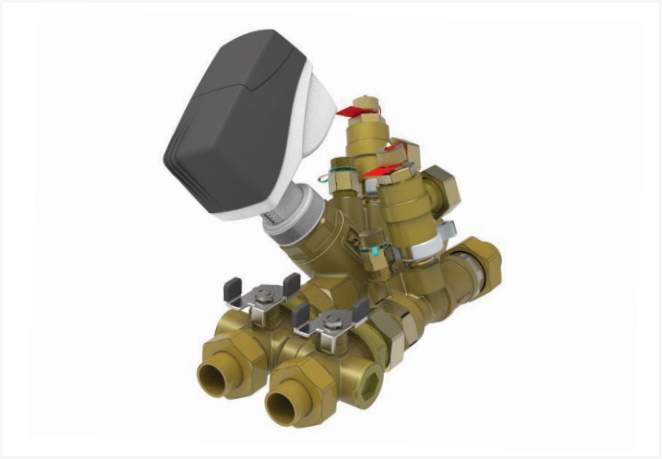


STANDARD PICV VALVE SET
CONFIGURATION FOR
A 4-PIPE FCU



ABV 4-PORT VALVE SET
CONFIGURATION FOR
A 4-PIPE FCU

COMPACT PICV FCU VALVE SETS ARE DESIGNED TO SIMPLIFY SELECTION, INSTALLATION, COMMISSIONING, CONTROL AND MAINTENANCE



The Compact FCU PICV Valve Set is designed to include all of the required valves and features for easy selection, installation, commissioning, control and maintenance.

With union connections at every joint and valve bodies, with removable and interchangeable inserts, the concept allows for a totally versatile approach to designing the valve set, for both heating and cooling duties.

To simplify the approach, the Valve Set is described and quoted as 3 elements:

Valve Set PICV	Actuator	System Connections

The Valve Set includes:

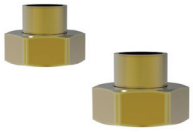
- By-Pass: Mini Flushing By-Pass unit (40mm centres)
- Flow Branch options:
  - Strainer
  - Flow measurement
  - P/T plugs
  - Drain/Flushing valve
- Return Branch options:
  - PICV with insert, set to the design flow rate
  - PICV body with flushing cap
  - Two P/T plugs
  - Union Drain valve

Actuator options, either 24 or 240V:

- Thermal ON/OFF
- Thermal Modulating
- Electric ON/OFF
- Electric 3 Point Floating
- Electric Modulating with feedback
- Electric Modulating with linear or characterised control
- Electric Bi-Directional synchronous ON/OFF or Open/Stop/Close

System connection options:

- 15 or 20mm Union Male or Female Threaded
- 15 or 22mm Union Compression
- 15 or 22mm Union Press Fit [all materials]
- 15 or 22mm Union Solder



MULTI-FUNCTIONAL FLOWCON **PICVS** AND **ABVS** AT THE HEART OF FLOCONTROL VALVE SETS

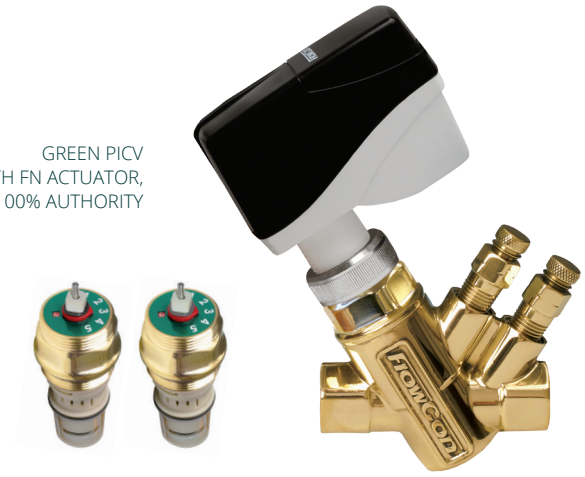
FloControl works exclusively with the versatile and proven PICV and ABV Valve Range from FlowCon, pioneers in energy saving PICV technology since 1993 and the world's largest specialised manufacturer of dynamic balancing and pressure independent control valves for the HVAC segment.

Over 10M FlowCon Valves are installed in over 60 countries around the globe, some of which have been operational for over 25 years.

The **FlowCon Green** PICV, which combines a 4mm full stroke **Control Valve**, an **Automatic Balancing Valve** and a **Differential Pressure Control Valve** in one valve housing, provides flow, temperature and pressure control at all flow rate settings and is tested to BSRIA PICV standards.

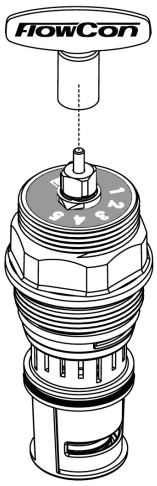
The **wide choice of FlowCon removable externally and internally adjustable Pressure Independent Automatic Balancing Valves** is designed to provide automatic balancing and constant flow at the maximum flow rate setting selected for the valve.

GREEN PICV WITH FN ACTUATOR, 100% AUTHORITY

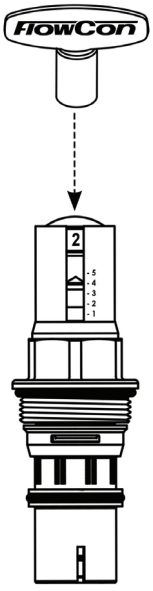


ABV WITH EXTERNALLY ADJUSTABLE "E-JUST" RANGE

ABV WITH INTERNALLY ADJUSTABLE "COMPOSITE" RANGE



REMOVABLE PICV INSERT



EXTERNALLY ADJUSTABLE ABV "E-JUST" INSERT

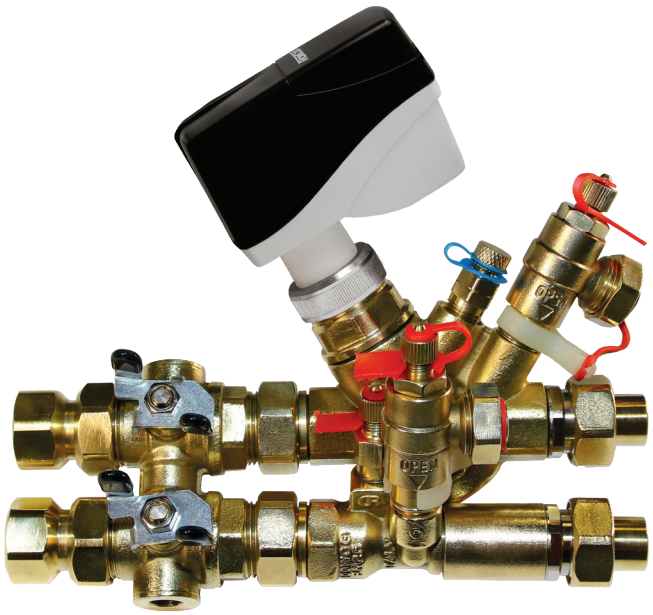
FlowCon PICVs and ABVs include an innovative self-adjustment feature enabling each valve to continuously self-balance, which ensures the precise delivery of the pre-selected flow rate required by each terminal unit, independent of pressure fluctuations in the hydronic system.

FlowCon PICVs and ABVs have an easily removable insert to ensure a trouble-free filling and flushing operation and are suitable for heating and cooling applications -20 to +120(C). Flow rates can easily be adjusted. All valve inserts deliver 41 flow rate settings.

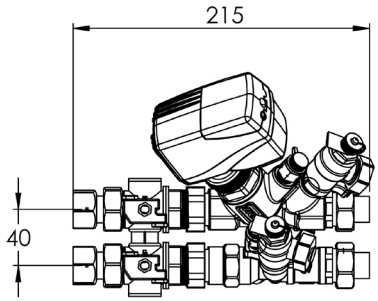
PICV	0.0052 - 0.308 l/s
ABV	0.0081 - 0.408 l/s

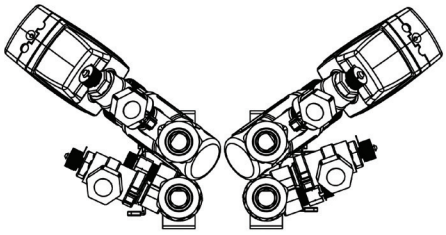
CONFIGURATION OVERVIEW STANDARD PICV VALVE SET

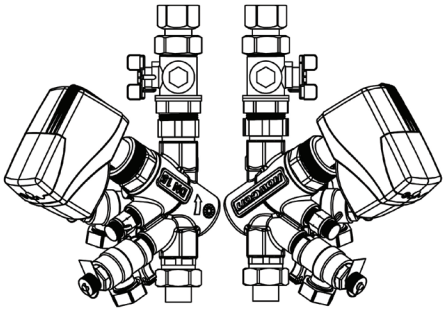
FULLY CONFIGURED FCU VALVE SET



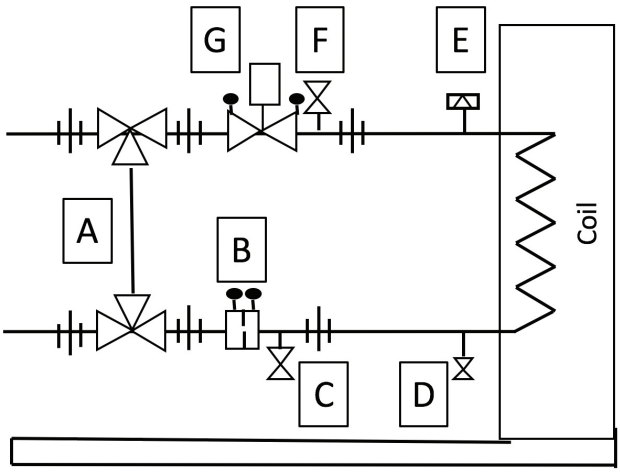
DIMENSIONAL DRAWINGS







SCHEMATIC



A Flushing By-Pass

B Metering Station

C Valve Set Union Drain Valve

D FCU Drain

E FCU Manual Air Vent

F Union Drain Valve

G PICV with two PT Plugs

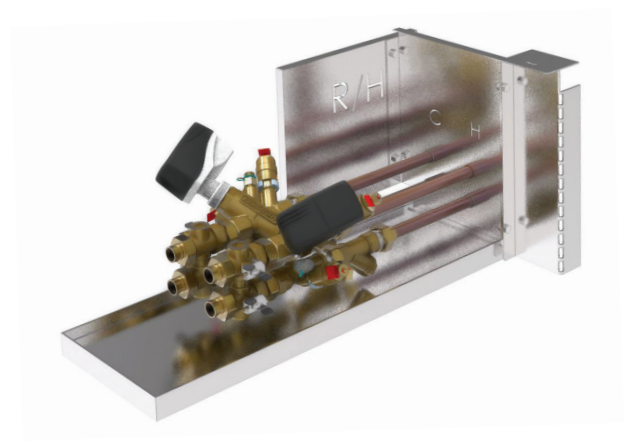
Flow: Venturi Metering Station fitted with Hose Union Drain Valve for back flush & drain, P/T plug, FCU Connection.

Return: FlowCon PICV fitted with P/T plug, Hose Union Drain Valve & FCU Connection. Optional: Blank Cap for flushing.

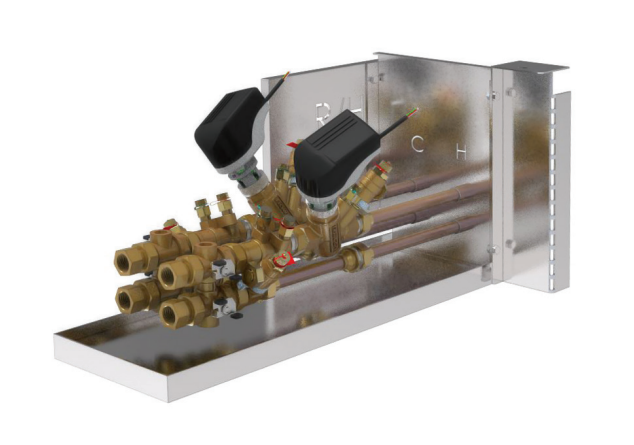
Configuration: Mini Flushing by-pass fitted with two 3-Way Ball Valves and 4 union connections. FCU Connections: 15mm or 22mm compression or union solder.

BENEFITS OF FLOCONTROL FCU VALVE SETS

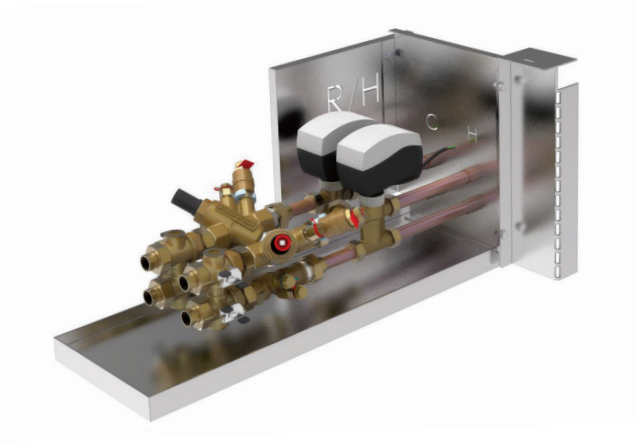
- Removable insert for easy filling and system flushing. Optional: supplied with blank cap fitted and separate insert for on-site fitting
- Compact design to fit directly on standard or slimline FCUs
- Includes independent flow verification with Venturi metering station for improved accuracy and pressure drop recovery
- Equal or linear flow control characteristics
- Simplifies selection, installation, commissioning, control & maintenance
- Easy PICV selection based on terminal unit flow rate
- Left or right handing, vertically or horizontally configured, to suit heating or cooling duty
- Union connections on all joints for easy valve and component alignment and removal
- Wide range of union system connections to suit any pipe system



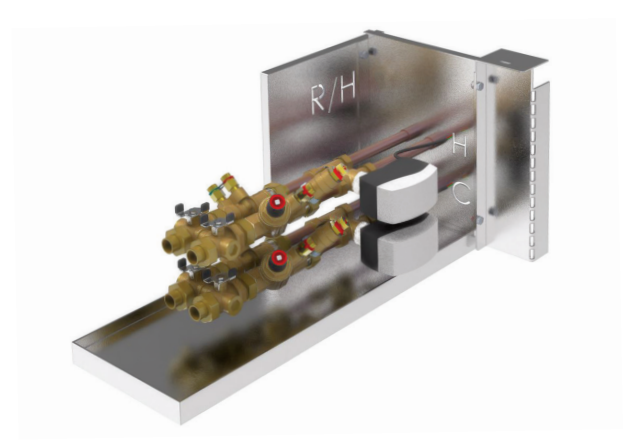
PICV VALVE SET WITH STRAINER



PICV VALVE SET WITH METERING STATION IN THE RETURN



ABV 4-PORT VALVE SET



HORIZONTALLY CONFIGURED ABV 4-PORT VALVE SET

FloControl

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