www.herzvalves.com

Compact Connect 4

HERZ Compact Connect 4 is a simple and reliable direct connection for Fan Coil Units with 40mm pipe centres.

Modern system designers are always looking for cost effective ways to improve commissioning and maximize efficiency. Valve manufacturers have developed various products over the years aimed at improving energy efficiency and saving installation costs. Installers have also adopted various methods of pre-fabrication in a bid to reduce installation and commissioning costs.

With today's emphasis on saving energy, designers are looking to cut costs to a minimum by utilising variable volume heating and cooling systems. The use of Dynamic Balancing Valves such as Pressure Independent Balancing Control Valves, ensures that these issues are overcome and flow rates are controlled constantly, as required by modern room temperature control systems.

The BSRIA guide to Energy Efficient Pumping Systems BG 12 / 2011 clearly indicates that significant energy savings can be made by utilizing Pressure Independent Balancing Control Valves (PIBCV) on terminal units in Variable Volume Systems.

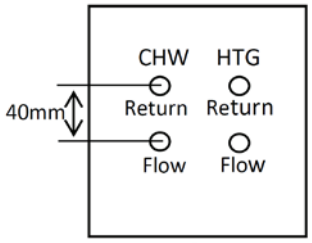
The HERZ Compact Connect 4 has been designed to give a simple direct connection to fan coil units with 40mm centre dimensions. The unit allows pressure independent control with 100% valve authority, ensuring full stroke regardless of pressure fluctuations, while guaranteeing a constant flow rate to the terminal unit maximising energy efficiency for the system. The HERZ Compact Connect 4 unit also permits flushing, draining and isolating operations to be undertaken.

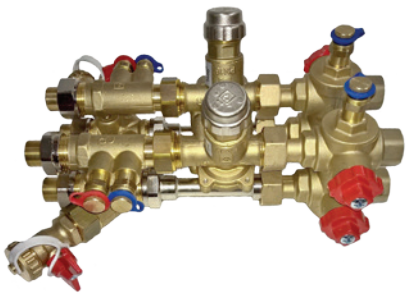
The unit is compact in design and utilises the HERZ 4006 SMART PIBCV together with a HERZ 4000 Orifice Plate to enable flow verification, a HERZ "H block" flushing bypass valve incorporating two 3-way ball valves with a bypass function and an optional HERZ 4111 strainer. The unit also has a drain valve and test points fitted to enable pressure measurement across the PIBCV or fan coil as required. On/off or modulating 0 – 10 V DC actuators can be fitted and integrated to a BMS if required.

The HERZ Compact Connect 4 is supplied with Female BSP connections to the system and 15 or 22mm solder connections to the fan coil unit as required. The unit is available with or without a strainer if required, although it should be noted that a strainer should be fitted in the branch upstream of the unit if the version without a strainer is used in accordance with BSRIA Guide BG 2 / 2010 and CIBSE KS7S.

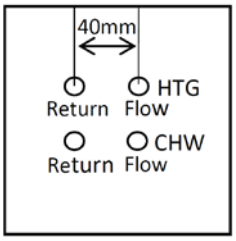
The HERZ Compact Connect 4 is suitable for most fan coil applications and is supplied in right or left handed versions to suit back to back installation in the different requirements. The unit is also suitable for different orientations of fan coil pipework.

The HERZ Compact Connect 4 V can be connected directly to a fan coil unit copper tails with flow and return pipes in a vertical plane with the return pipe above the flow pipe, the unit can be handed to suit.





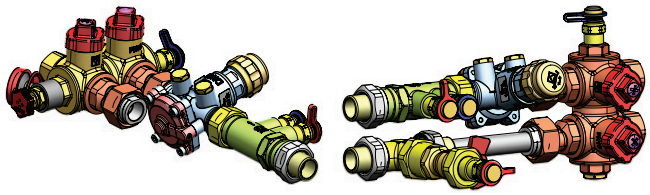
The HERZ Compact Connect 4 H can be connected directly to a fan coil unit copper tails with flow and return pipes side by side and the heating and chilled one above the other, the unit can be handed to suit.



The HERZ Compact Connect 4 incorporates an orifice plate to enable flow verification at ± 5%. The range includes a unique ultra-low flow orifice plate which enables the verification of flowrates as low as 10 l/hr (0.004 l/s).

Valve size	Flowrate range (l/s)
DN 15 ULF	0.004 - 0.013
DN 15 LF	0.013 - 0.030
DN 15 MF	0.029 - 0.061
DN 15	0.045 - 0.099
DN 20	0.094 - 0.205
DN 25	0.206 - 0.486

Valve size	Horizontal orientation	Vertical orientation
DN 15	CC4H15	CC4V15
DN 20	CC4H20	CC4V20
DN 25	CC4H25	CC4V25



Valve size	Horizontal orientation with strainer	Vertical orientation with strainer
DN 15	CC4HST15	CC4VST15
DN 20	CC4HST20	CC4VST20
DN 25	CC4HST25	CC4VST25

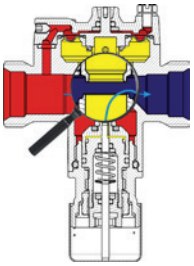
Features & Benefits

- DN15 & 20 versions designed with 40mm centres to fit directly onto terminal unit over a drip tray, which eliminates the need for insulation
- DN25 version designed with 90mm centres with adapters available for 40mm centres
- Allows regulating, flushing and isolating operations to be undertaken
- Flushing by-pass included as recommended by BSRIA BG29/2011
- Flow measurement to a minimum accuracy of ± 5%
- Differential Pressure measurement can be taken across the terminal unit
- All units can be tagged with FCU reference and all relevant flow data
- Fully assembled and tested at the factory
- All components constructed from DZR Brass
- 5 year warranty
- Known envelope dimensions
- Reduction in on-site labour, time and cost
- Fast connection (only four connections are required)
- Reduces need for pre-fabrication area
- Reduced possibility of incorrect installation

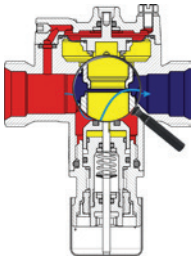
HERZ 4006 SMART PIBCV

The HERZ 4006 SMART valve is a pressure independent balancing control valve (PIBCV) which has been specifically designed to balance the ultra-low flow rates utilized today in modern systems designed to achieve high temperature differentials between flow and return pipework. As the valve flow rate is pressure independent and unaffected by changes in differential pressure, it has a valve authority of 100%.

The valve operates by sensing the differential pressure across the valve seat, the pressure transfer inside the valve is created by an integral capillary. The pressure on the diaphragm moves the piston and the seat to maintain a constant differential pressure and therefore flow rate through the valve. The flow rate is set by percentage using the valve flow graphs. As the actuator modulates the flow, the valve lift changes and the valve adapts and maintains constant differential pressure and flow rate over the new settings.



HERZ 4006 SMART in fully open position



HERZ 4006 SMART in operation; due to the pressure relief, very low actuating forces and differential pressures are required

HERZ New Generation Actuators

HERZ New generation actuators are available in both thermo-electric and motorised versions. The thermo-electric available in 2 point or pulse control NC & NO, 24V or 230V and versions with limit switches are also available. The thermo-electric modulating actuator has proportional stroke recognition. The actuator detects the length of the stroke and apportions a 10V signal to the full stroke at any preset position. The motorised actuator is available in 3 point at 24V & 230V and a modulating version at 24V with 10V DC signal.

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