



## HERZ Commissioning Centres provide a cost effective method of controlling terminal units

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. Contractors 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 and differential pressure controllers ensures that these issues are overcome and flow rates are controlled constantly, as required by modern room temperature control systems.

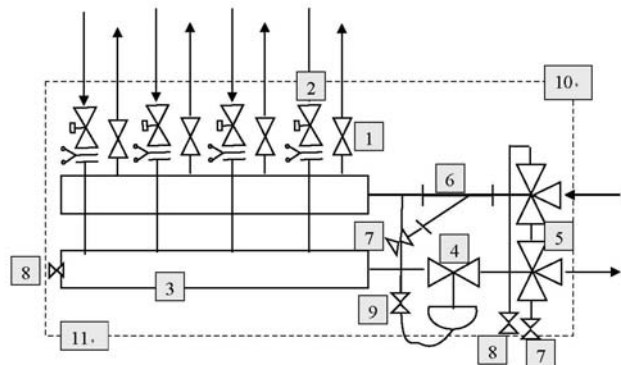
The BSRIA guide to Energy Efficient Pumping Systems BG 12 / 2011 clearly indicates that significant energy savings can be made by utilizing Pressure Independent Balancing Control Valves (PIBCV) on terminal units in Variable Volume Systems. The guide also emphasizes the importance of using Differential Pressure Control Valves (DPCV) on sub-branches when static balancing valves are utilized on terminal units and that energy savings in variable flow systems are greatly improved by locating the DPCV as close as possible to the terminal unit control valves they serve. The guide recommends the use of valve modules as the DPCV's are located close to terminal unit control valves and act to maintain a constant pressure differential across all terminal unit sub-branches.

The Herz commissioning Centre has been designed to give a centralised location for commissioning multiple terminal units eg. Fan Coils, Chilled Beams etc. for heating and chilled water. All the valves incorporated are standard Herz products so the Herz reputation for quality and reliability is assured.

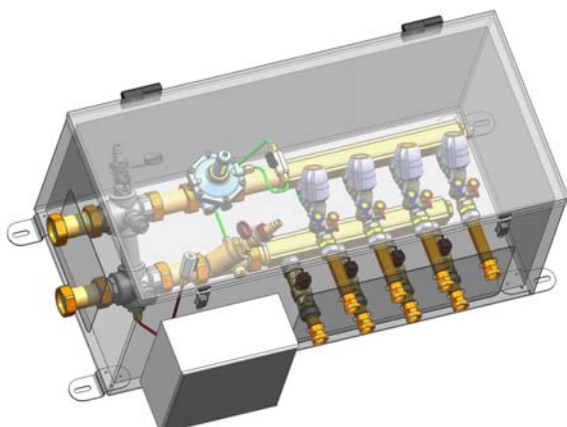
Options are available for manual or motorised Fixed Orifice Commissioning Valves or PIBCV's controlling the terminal unit sub-circuits. A DPCV is installed across the main flow and return to the manifold, motorised zone control for the box is also an option.

The unit is supplied in an insulated steel fabricated box, totally vapour sealed for chilled water circuits and can be produced in left or right hand versions.

The commissioning centre incorporates isolation valves on all flow connections and balancing/control valves on all return connections with a strainer fitted to the main flow intake. The strainer is fitted with a blow down drain valve to allow the strainer basket to be cleaned in situ, without the need to remove the strainer basket. Three port ball valves allow flushing and isolating operations to be undertaken. Air Vents are also fitted to the unit.



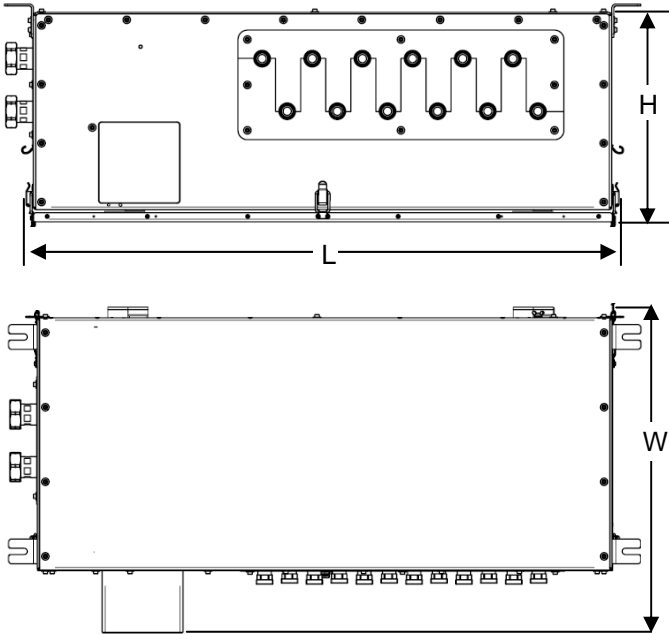
No	Component	Herz Fig No
1	Ball Valve	2190
2	FO Commissioning Valve	4017
2	FO Control Valve	7217-TS-V
2	PIBCV	4006 SMART
3	Manifold	N/A
4	DP Control Valve	4002
4	DP Zone Control Valve	4002 FIX-TS
5	3 way Ball Valve	2414
6	Strainer	4111
7	Drain Valve	2512
8	Air Vent	N/A
9	Capillary Ball Valve	4007-87
10	Box	N/A
11	Insulation	N/A



**HERZ Commissioning Centre**  
Internal view showing valve configuration



**HERZ Commissioning Centre**  
Installed



	4 port	6 port
L	785	946
H	334	334
W	524	524

## Herz Differential Pressure Control Valves

HERZ differential pressure controllers Fig 4002 positioned across the manifold and are sized to the requirements of the system, available up to 60 kPa and are completely adjustable.



### Herz Differential Pressure Controller

The Herz 4002 FIX-TS combination valve is a differential pressure controller with a fixed DP preset to any value between 5 and 60 kPa (normally factory preset to 23 kPa). The fixed differential pressure control valve also has a zone valve function with the addition of a two point actuator for On/Off control.



**Herz Differential Pressure Controller with integrated zone valve (model 4002 FIX-TS) and HERZ 7709 Thermal drive**

## Herz Fixed Orifice Commissioning Valves

The HERZ 4217 TS-V Fixed Orifice Commissioning / Control valve has an integral orifice incorporated into the valve casting. The combined control, commissioning valve can be used with on/off or modulating actuators. The valve is ideal for Fan coils and other terminal units, providing the control feature and also flow rate balancing with high accuracy and good repeatability. The valve is also available in Low Flow versions.



**HERZ 4217 TS-V Fixed Orifice Commissioning / Control Valve**

The HERZ 4017 Fixed Orifice Double Regulating valve has an integral orifice incorporated into the valve casting. The commissioning valve has hidden regulating and locking functions with high accuracy and good repeatability. The valve is also available in Low Flow versions.



**HERZ 4017 Commissioning Valve**

## Herz Pressure Independent Balancing Valve

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 rising differential pressure, it has a valve authority of 100%. The DN15 valve has a minimum flow rate of 0.0028 kg/s (10 kg/h).



**HERZ 4006 SMART PIBCV**



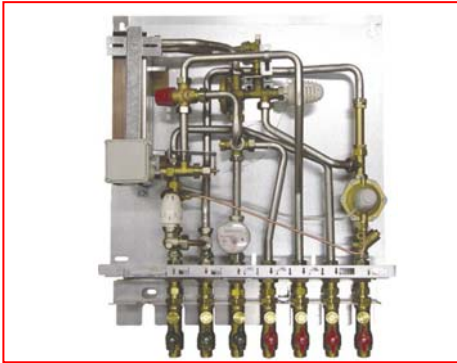
**HERZ 4006 PIBCV  
Combination Valve**



**HERZ 2117 Characterised  
Ball Control Valve**



**HERZ Multi-layered  
Composite Pipe**



**HERZ 4008 Deluxe Direct  
Hydraulic Interface Unit**



**HERZ 4500 SMART Connect 4  
Pre-assembled Valve Unit**



**HERZ 7708 / 7709 / 7790  
Actuating Drives**

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For questions please contact the HERZ office.