

FLOW REGULATING & BALANCING VALVE

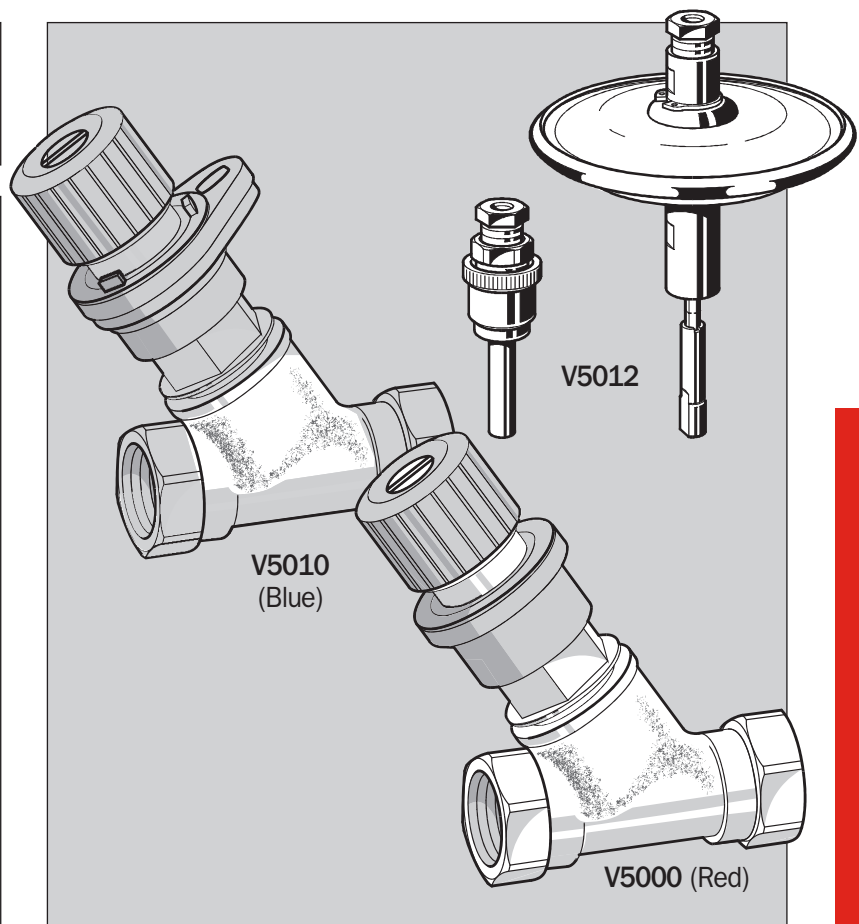
KOMBI 3 PLUS

FEATURES

- System flow regulation
- System flow rate measurement
- Automatic differential pressure regulation valves up to DN40
- System isolation valves
- System filling & draining valves

OPTIONS

- 10/15/22mm nut & olive set for copper pipe connection
- Draining adaptor
- Pressure measuring adaptor
- U gauge flow meter
- Handheld measuring computer



APPLICATION

The Kombi 3 Plus system is suitable for large two-pipe systems or district heating schemes that require precise regulation of flow through systems or individual heating circuits. The valves have female BSP connections and are available in $\frac{3}{8}$ " - 3" sizes (DN10 - DN80).

Systems with oversized pumps, or undersized pipework and valves, generate high differential pressures causing noise and inefficiency. By presetting the Kombi 3 plus, differential pressure across a system can be controlled, thereby reducing noise and energy consumption.

If flow rates or resistance across a system have not been calculated, fitting the V5012 diaphragm unit will set the differential regulation automatically, regardless of changes in system flow rates. This would be ideal for existing systems with thermostatic radiator valves (maximum valve size = DN40 with maximum flow rate 2500kg/hr).

NON-ELECTRIC CONTROLS

Honeywell

Installation example

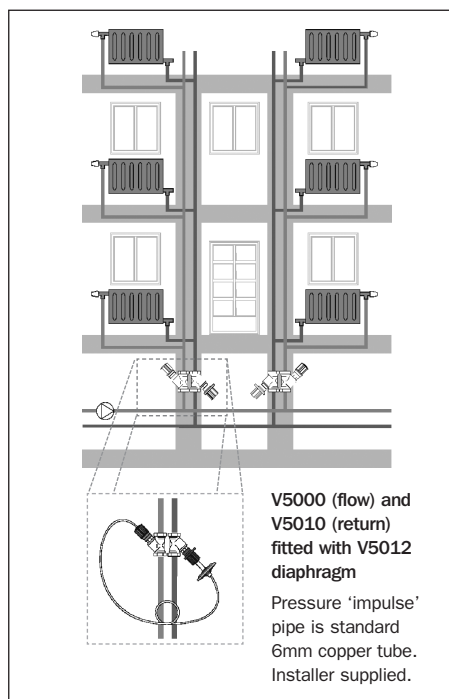
The **Kombi 3 plus** comprises of one valve on the flow and one valve on the return pipe of a heating circuit.

The **V5000** flow (red) valve can be used to measure system flow rates.

The **V5010** return (blue) valve can be adjusted to regulate the flow through the whole circuit.

Both can be used as isolation or draining valves.

The **V5012** diaphragm is fitted into the V5010. This is also joined to the V5000 with a compression fitting via a small 'impulse' pipe.



Function

When the resistance in a heating circuit increases i.e. radiator thermostats shut down, the pressure on the flow side of the diaphragm (via the impulse pipe) will increase.

This will cause the diaphragm piston to shut down the return valve proportionately, reducing the overall water flow through the system.

This will reduce the differential pressure across the system until it has balanced to the preset level (typically 0.2 bar).

Specification

Operating Medium	: Water, water - glycol mixture
Operating Temperature	: 2 to 130°C (36 to 266°F)
Operating Pressure	: 10 bar max.
Differential Pressure	: 2 bar max.
Insert Material	: Brass
Pipework Connection	: Female BSPT
Housing Material	: Red bronze

Note: KV values, flow charts and dimensions for all valves are listed on a separate data sheet. Contact Honeywell for more information.

Ordering Specification

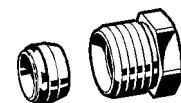
Valve Size	DN10	DN15	DN20	DN25
RED (Flow)	V5000Y0010	V5000Y0015	V5000Y0020	V5000Y0025
BLUE (Return)	V5010Y0010	V5010Y0015	V5010Y0020	V5010Y0025
Valve Size	DN32	DN40	DN50*	DN65*
RED (Flow)	V5000Y0032	V5000Y0040	V5000Y0050	V5000Y0065
BLUE (Return)	V5010Y0032	V5010Y0040	V5010Y0050	V5010Y0065
Valve Size	DN80*	Diaphragm Controller		
RED (Flow)	V5000Y0080	Type I 0.1..0.3 Δp (bar)		V5012A0103
BLUE (Return)	V5010Y0080	Type II 0.3..0.6 Δp (bar)		V5012A0306

* Note: The diaphragm controller cannot be fitted to valves above DN40

Accessories

VA650A1010

³/₈" x 10mm nut & olive set

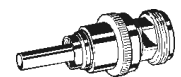


VA650A1215

¹/₂" x 15mm nut & olive set

VA650A2022

³/₄" x 22mm nut & olive set



VA3500A001

Draining adaptor (all valves)

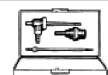
VA2501A010 DN25 - DN40 valves **VA2501A032** DN32 - DN50 valves
Tamp-proof cap

Measuring Equipment

By using the measuring adaptor set, the flow rates of the heating circuit (controlled by the Kombi valves) can be measured using either of the measurement devices below. The VM241 can monitor and log flow rates and differential pressures for up to one day. The data can then be downloaded onto a PC for analysis.

VA3502A001

Measuring adaptor set



VM200A1001

'U Gauge' flow meter



VM241A1002

Measurement computer. Supplied with software program on disc and RS 232 interface cable for PC

