



Automatic Bypass Valve DATA SHEET ZL-8009、ZL-8009B、ZL-8010、ZL-8010B



ZL-8009



ZL-8009B



ZL-8010



ZL-8010B



Application

The automatic bypass valves are designed to maintain the water flow in central heating systems fitted with TRVs. They do this by maintaining the de-sired minimum flow rate through the boiler and limits circulation pressure when water paths may be closed.

TRVs slowly close down after each radiator raises the room temperature. To overcome flow restrictions as TRVs close down, the ABV is adjusted to the required set point. As the system resistance increases due to TRVs closing, the ABV allows flow to increase, in order to maintain the required pre-set system differential pressure.

The regulation provided will reduce system noise that can result from TRVs or zone value is closing, eliminate pump impeller wear that can result from high flow resistance, and enhance the life of the boilers heat exchanger by ensuring minimum flow rate at all times

Performance

- Applicable medium: Water、glycol solutions
 Max. percentage of glycol is 30%
- Setting Range: 0.05 to 0.5bar
- Max Working pressure: ≤1.6mpa
- Working Temperature: 120°C Intermittent
- Connections : 22mm Compression Joints

Materials

Valve Body	Brass
Valve Stem	Brass
Spring	Steel
Handwheel	PA66
Seals	EPDM

Product Range

Code	Description
ZI80092222	Automatic differential by-pass valve angled 22mm connections(Red handwheel)
ZI80102222	Automatic differential by-pass valve straight 22mm connections(Red handwheel)
ZL8009B2222	Automatic differential by-pass valve angled 22mm connections(Black handwheel)
ZL8010B2222	Automatic differential by-pass valve straight 22mm connections(Black handwheel)



Dimensions





Settings

The valve can be manually adjusted from 0.05 Bar to 0.5 Bar. A setting of between 0.2 > 0.3 Bar is usually sufficient for most domestic situations. If the differential pressure is too low or the by-pass flow is too high, the pressure setting should be increased. If the differential pressure is too high or the by-pass flow too low, the pressure setting should be decreased.





Installation

The bypass valve should be installed between the flow and return with flow in the direction of the arrow. If a higher capacity is required for large installations, it is possible to install two or more valves in parallel.

Installation example:

