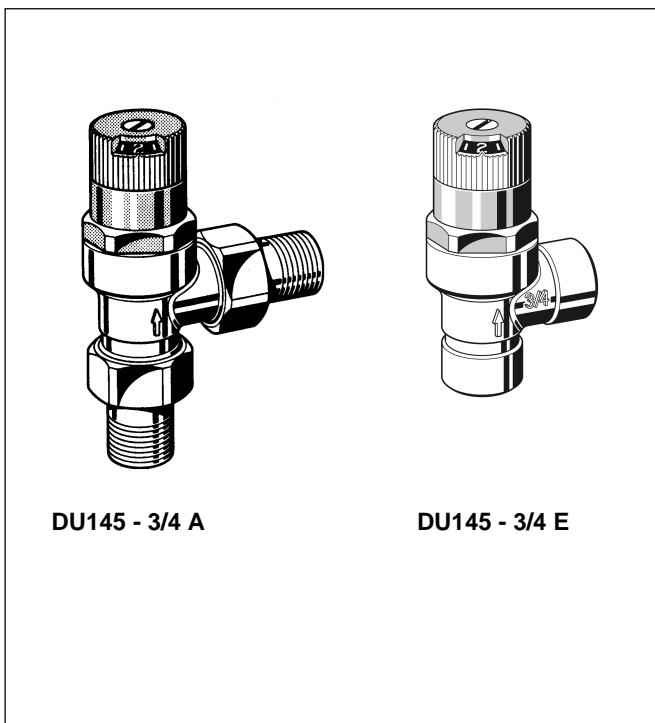


## DU145

### AUTOMATIC BYPASS AND DIFFERENTIAL PRESSURE VALVE WITH DIFFERENTIAL PRESSURE INDICATOR

#### PRODUCT DATA



DU145 - 3/4 A

DU145 - 3/4 E

#### Design

The bypass and differential pressure valve comprises:

- Housing - Version A with fittings  
- Version B with internal threads
- Spring bonnet
- Adjuster knob with setting indicator scale
- Valve disc
- Spring

#### Materials

- Unpolished pressed brass housing
- Brass fittings (Version A)
- High-quality synthetic material spring bonnet
- High-quality synthetic material adjuster knob
- High-quality synthetic material valve disc
- Stainless-steel spring
- EPDM seals

#### Application

The DU145 automatic bypass and differential pressure valve is used to maintain constant differential pressure in a heating system. It reduces flow noise in a system, particularly as thermostatic radiator valves are closing. The boiler return temperature is raised and this reduces the corrosion caused by flue gas condensation. In addition, when radiator valves are closed it also maintains flow over the temperature sensor on the boiler to ensure proper operation of external temperature compensating controls. On gas fired water heaters it guarantees a minimum flow circulation when thermostats or radiator valves are closed.

#### Features

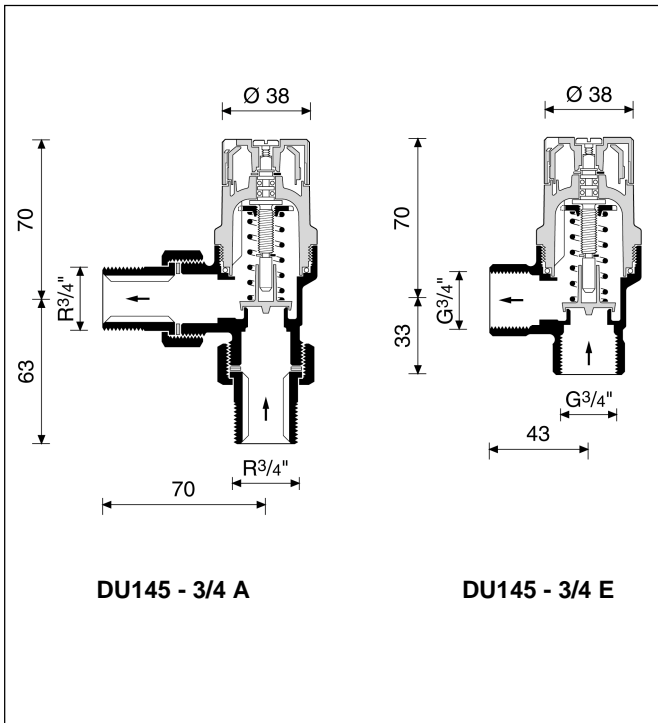
- Simple installation between the flow and return pipe-work
- Minimises flow noise
- No external controls required
- Differential pressure finely adjustable
- A turn of the adjuster knob is all that is required to set the differential pressure required.
- The setting is directly read on the indicator scale
- Hinders boiler corrosion
- Setting value is in meters water column
- Tried and tested

#### Range of Application

For pumped hot water heating systems

#### Specifications

<b>Medium</b>	Hot water
<b>For system capacities up to approximately</b>	70 kW (60 000 kcal/h)
<b>Operating temperature</b>	max. 110°C (230°F)
<b>Operating pressure</b>	max. 3,0 bar (43,5 P.S.I.)
<b>Differential pressure</b>	Adjustable between 0,1...0,6 bar (1,5...8,7 P.S.I.) Set during manufacture at 0,2 bar (2,9 P.S.I.)
<b>Connection size</b>	3/4"



### Function

At equal pressure between the inlet and outlet side the valve is closed. The valve disc is pushed by a spring against the valve seat. If there is a pressure difference between the inlet and outlet sides, then a force is exerted on the valve disc and against the spring. If this force exceeds the force of the spring, then the valve begins to open in proportion to the rise in differential pressure and maintains a constant bypass flow as indicated on the flow diagram.



### Versions

- DU145 - 3/4 A = with threaded union connectors R 3/4"
- DU145 - 3/4 E = with internal threads G 3/4"



Part No.	kvs-value	D	d
DU145 - 3/4 A	3/4"	-	A
DU145 - 3/4 E	-	3/4"	E

### Accessories for DU145 - 3/4 E

Compression ring with union-nut

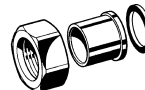
-  3/4" x 18 mm      ZS 109 M - 3/4 G
-  3/4" x 22 mm      ZS 109 M - 3/4 H

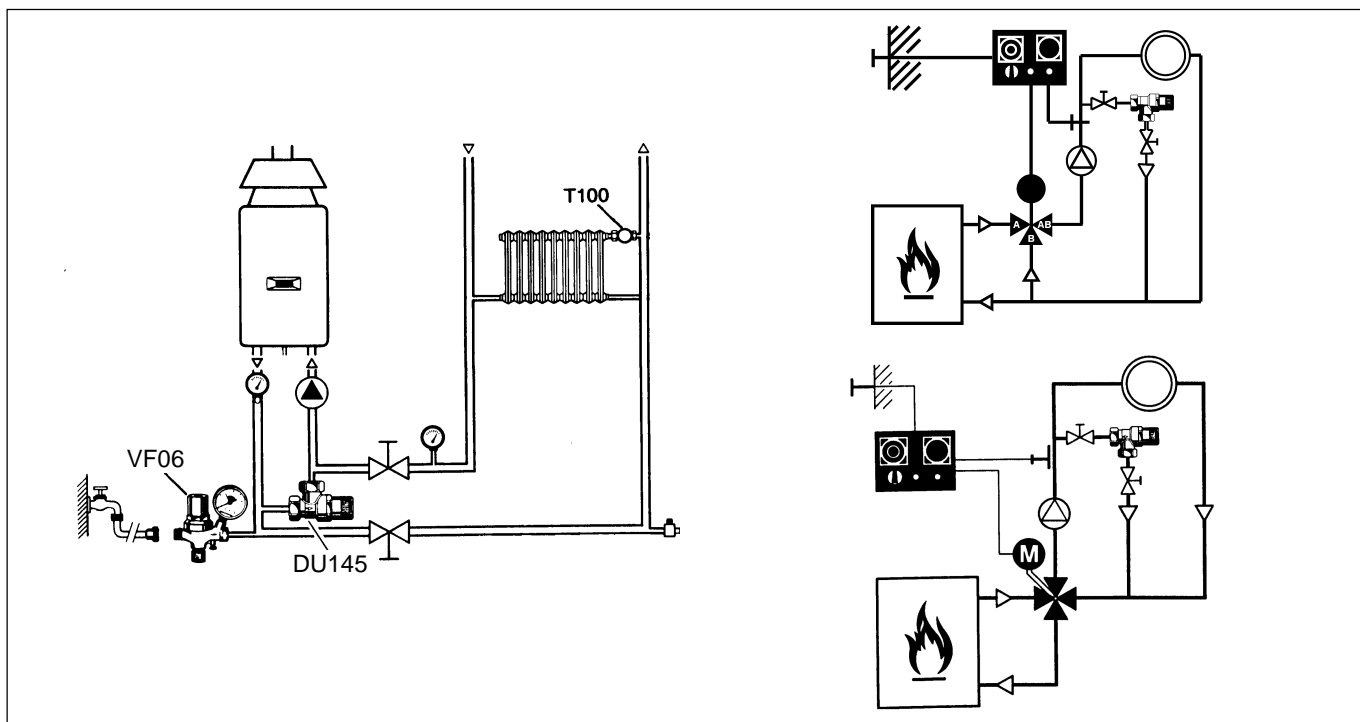
2 compression rings with union-nuts and support inserts

-  3/4" x 18 mm      ZS 109 M - 3/4 GS
- 

### Accessories for DU145 - 3/4 A

Solder union connectors (comprises 2 solder union connectors, 2 backnuts and 2 seal rings)

-  for Ø22 mm pipe      VST 06 - 3/4 B



### Installation Guidelines

- Simple installation between flow and return
- No external controls required
- Not suitable for district heating installations
- For maintenance purposes it is recommended that shutoff valves be fitted on both sides of the bypass valve

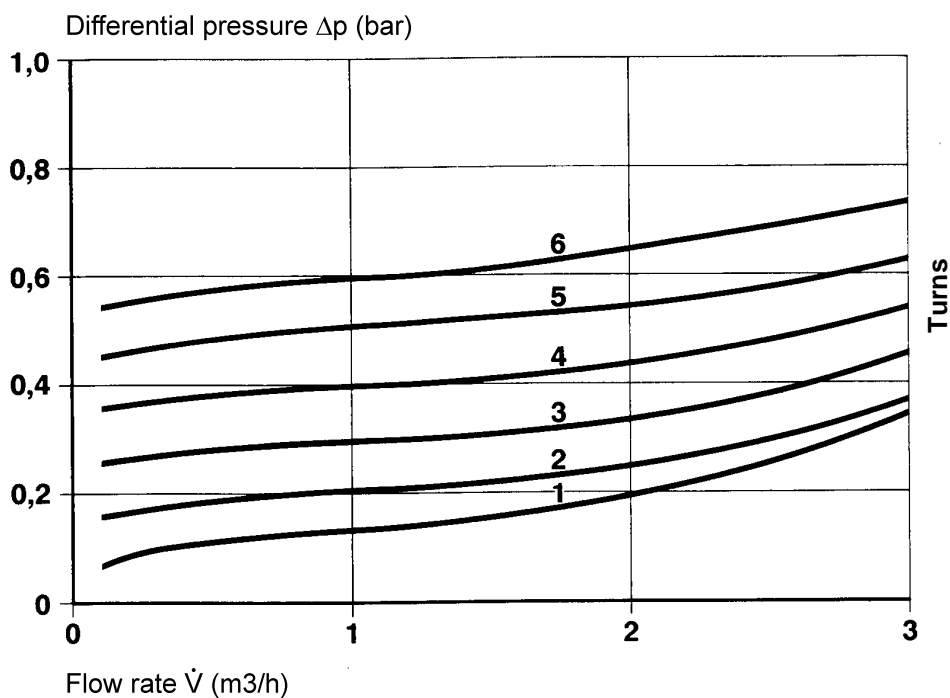
### Typical Applications

Automatic bypass and differential pressure valves are installed in heating systems to maintain a constant differential pressure and to minimise water flow noise.

DU145 can be installed:

- On heating systems with three-way mixer valves
- On heating systems with four-way mixer valves
- On gas-fired hot water circulation heating systems

### Flow Diagram



**Honeywell**

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