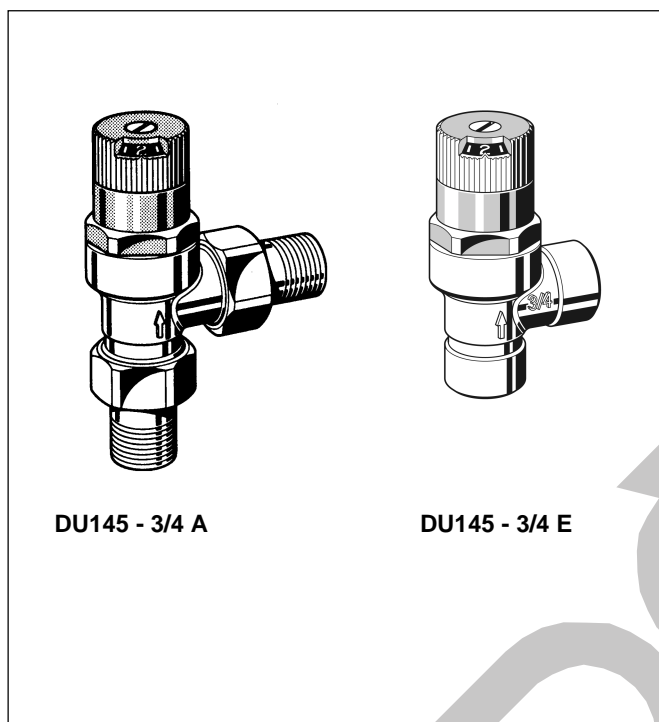


DU145

AUTOMATIC BYPASS AND DIFFERENTIAL PRESSURE VALVE WITH DIFFERENTIAL PRESSURE INDICATOR

PRODUCT DATA



DU145 - 3/4 A

DU145 - 3/4 E

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

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

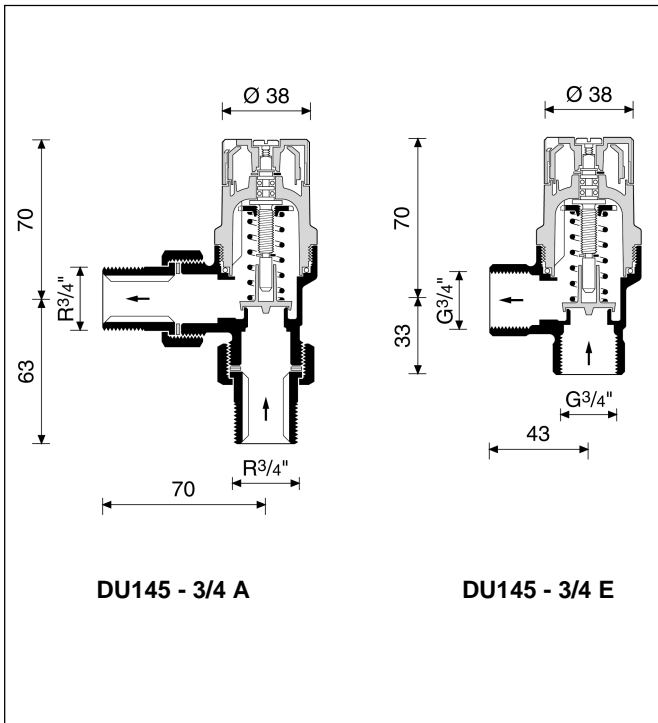
- Unpolished pressed brass housing
- Brass fittings (Version A)
- High-quality synthetic material spring bonnet
- High-quality synthetic material adjuster knob
- High-quality synthetic material valve disc
- Stainless-steel spring
- EPDM seals

Range of Application

For pumped hot water heating systems

Specifications

Medium	Hot water
For system capacities up to approximately	70 kW (60 000 kcal/h)
Operating temperature	max. 110°C (230°F)
Operating pressure	max. 3,0 bar (43,5 P.S.I.)
Differential pressure	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.)
Connection size	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

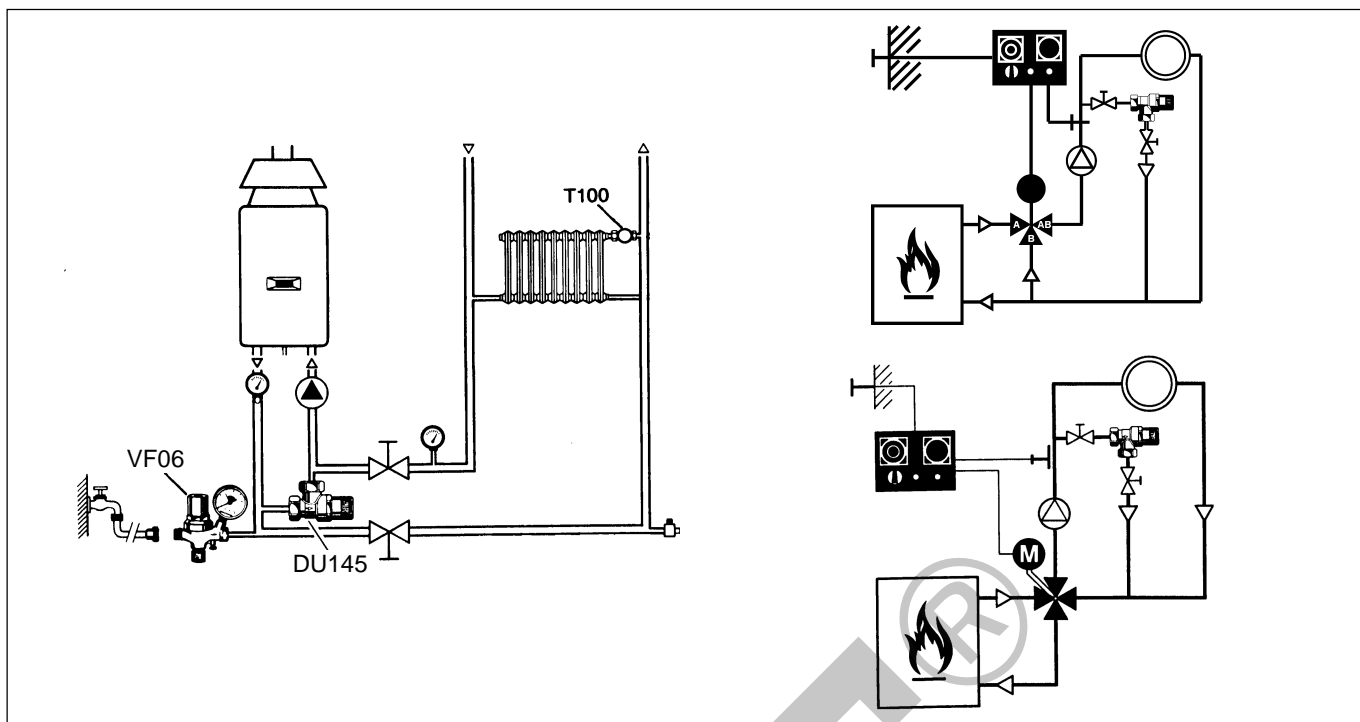
2 compression rings with union-nuts and support inserts

-  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

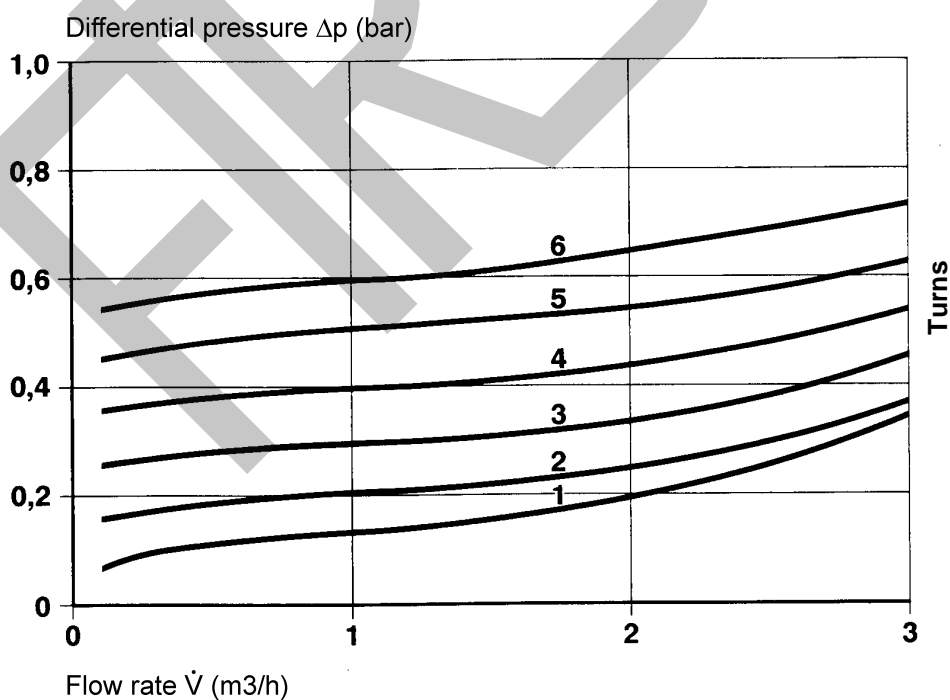
Typical Applications

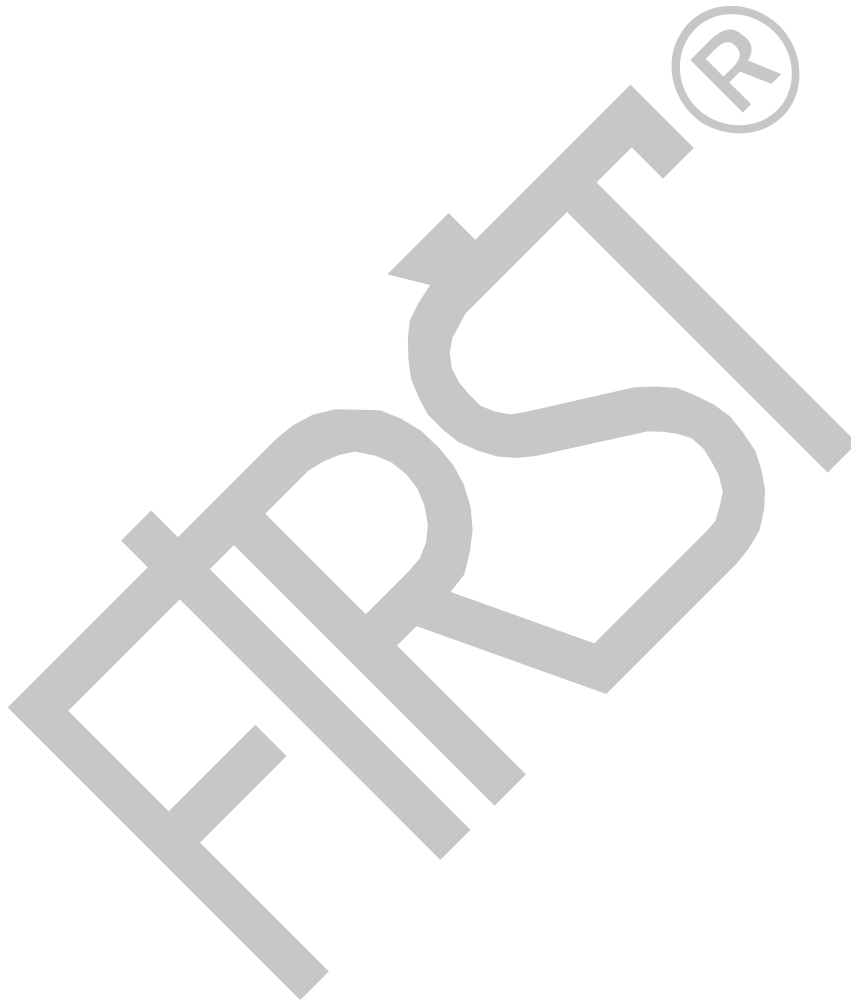
Automatic bypass and differential pressure valves are installed in heating systems to maintain a constant differential pressure and to minimise water flow noise.

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





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