IMI TA

BPV – NPT threads

Differential pressure relief valves

Proportional relief valve

IMI Hydronic Engineering

Breakthrough Engineering

BPV – NPT threads

Used in heating and cooling systems, the BPV proportional relief valve works quietly to ensure a minimum flow level in the pump while maintaining the desired supply temperature when operating at low loads.

Key features

- **Adjustable set-point**
  For accurate differential pressure control.
- **Shut-off function**
  For easy maintenance.
- **AMETAL®**
  Dezincification resistant alloy that guarantees a longer valve lifetime and lowers the risk of leakage.

Technical description

Applications:
Heating and cooling systems

Function:
Proportional relief
Adjustable differential pressure (Δp)
Shut-off

Dimensions:
1/2" - 1 1/4"

Pressure class:
PN 20 (290 psi)

Setting range:
10 - 60 kPa (1.45 - 8.7 psi)

Temperature:
Max working temperature: 248°F
Min working temperature: -4°F

Materials:
Valve body: AMETAL®
Bonnet: AMETAL®
Cone: PTFE coated AMETAL®
Stem: AMETAL®
Union nuts: Brass
Sleeve: Brass
Cap: Brass
Gaskets: Fiber-based aramid
Springs: Stainless steel
O-rings: EPDM rubber
Guide ring: PTFE

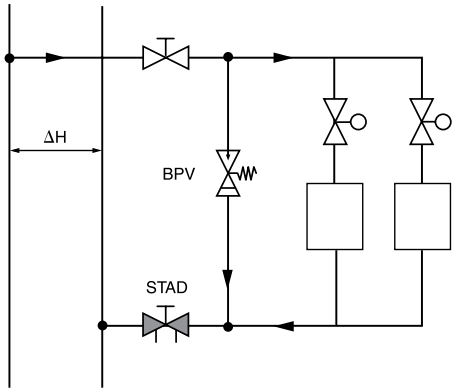
AMETAL® is the dezincification resistant alloy of IMI Hydronic Engineering.

Marking:
Valve type, DN, inch size and flow direction arrow.

Connection:
Pipe threads NPT according to ANSI/ ASME B1.20.1-1983.
Complete thread according to ANSI B16.15-1985.

Installation

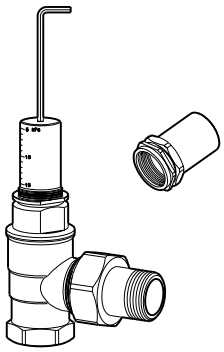
Application example



In installations with radiator valves, in which many of the radiator valves have closed, a big part of the pump head will affect the valves since the pressure drop in pipes and accessories has decreased. If the available differential pressure is higher than 30 kPa (4.35 psi), noise may occur.

Installation of BPV
Install the BPV in the circuit after the balancing valve and between the supply and return pipe. The BPV is adjustable and opens at the preset differential pressure, making it possible to maintain desired pressure and flow in the distribution system. By that, the temperature in the pipes is also maintained and the pump is ensured a minimum flow.

Setting

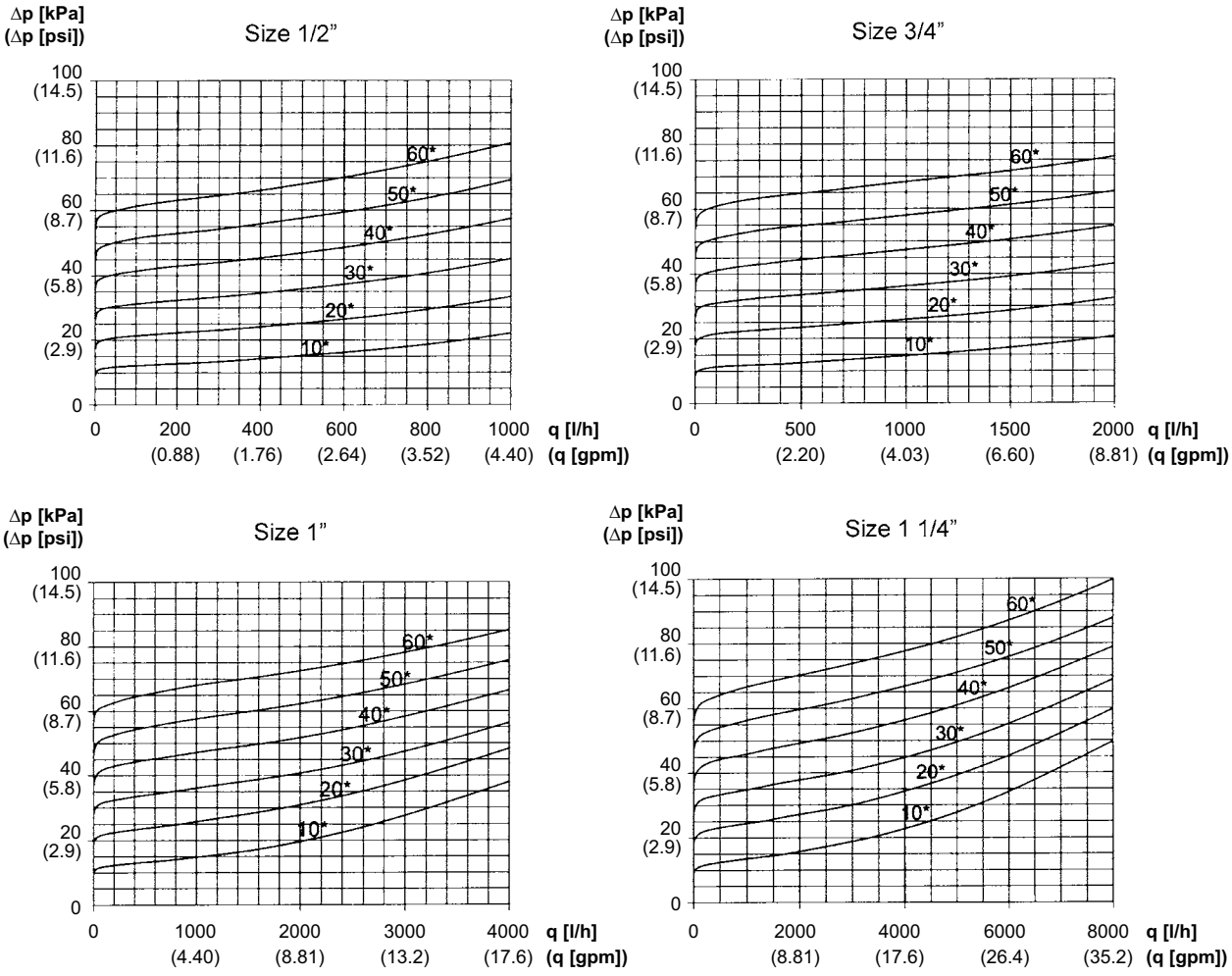


Use a 3 mm Allen key to adjust the BPV valve to operate at the required differential pressure.

Diagram

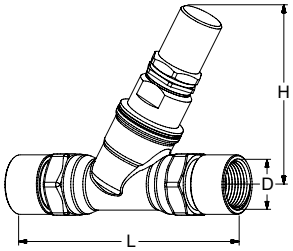
Valve characteristics

Adjust the BPV valve to the required differential pressure 10-60 kPa (1.45-8.7 psi).
The valve characteristics will be as shown in the diagrams below.



*) Differential pressure setting [kPa].

Articles



Straight

10-60 kPa (1.45-8.7 psi)

Size	D	L [in]	H [in]	Article No
1/2”	1/2 NPT	4.65	3.66	52 198-715
3/4”	3/4 NPT	5.31	3.66	52 198-720
1”	1 NPT	5.91	4.06	52 198-725
1 1/4”	1 1/4 NPT	6.77	4.13	52 198-732