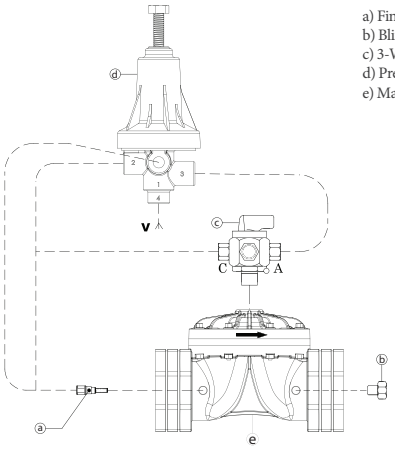
CONTROL VALVES

300 Series Plastic Control Valves

Pressure Relief Control Valve



Technical Drawing



a) Finger Filter
b) Blind Plug
c) 3-Way Selector Valve
d) Pressure Relief Valve
e) Main Body

Product Description

Pressure relief control valves ensure the safe operation of systems by relieving high-pressure surges in a pressure-sensitive manner. If the pressure exceeds the set pressure for any reason, the valve opens to release the excess pressure. This allows the system to operate more reliably and for a longer lifespan. They are used at critical points in systems. Polyamide hoses and fittings are standard in BKV plastic control valves.

Production Standards

DN50 ⟹ DN100	
Pressure Range	1 bar ⟹ 10 bar
Connection	ISO (BSP)
Temperature	-10 °C +80 °C

Features

- Simple structure for easy operation and maintenance
- Low cost
- Operation over a wide pressure range
- Flawless modulation even at low flow rates
- Impact-free opening and closing with flexible diaphragm
- Complete sealing with reinforced diaphragm and internal spring
- Very wide range of control applications with the use of different pilot valves
- Ability to operate in horizontal and vertical positions in application areas
- Maintenance can be performed without removing it from the pipeline.

Application Areas

- Agricultural irrigation
- Industrial Applications
- Irrigation and Drinking Water Systems

Adjustment

- Start the pump or open the main valve on the network to supply water to the system.
- Wait a few seconds for water to reach the valve's control chamber.
- Turning the adjustment screw clockwise will increase the set pressure value, and turning it counterclockwise will decrease it.
- After setting the desired inlet pressure value, tighten the lock nut located under the adjustment screw.
- Check and clean the finger filter indicated by "a" according to the water quality. Do not clean the filter more than once every few months unless the water is very dirty.
- Drain the water from the actuators and pilot valves of valves that are not used during the winter season.

Working Principle

Closed position: The valve is closed by applying pressure to the diaphragm through fluid pressure.
Open position: Internal line pressure moves the diaphragm upwards, allowing flow.
Modulation position: The diaphragm remains in a fixed position by balancing the internal and external line pressures.



Diameter	2" DN50	2 1/2" DN65	3" DN80	4" DN100
Code	GP10BTV 50	GP10BTV 65	GP10BTV 80	GP10BTV 100



Recommended Work Values

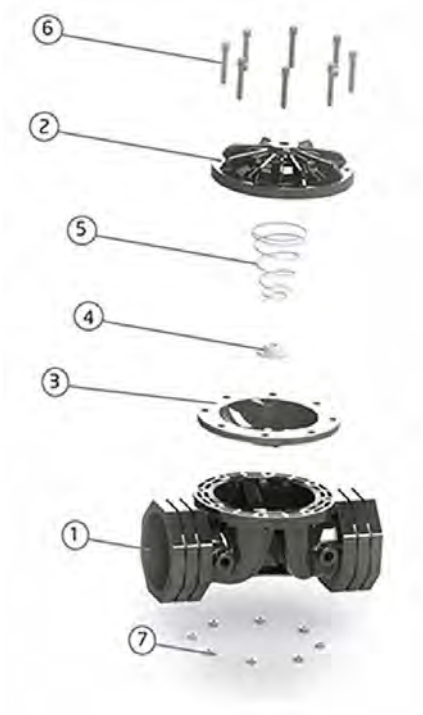
Working Pressure	Standard	1-10 bar (10-145 psi)
Temperature	Min.Operating Temperature	-10°C
	Max.Operating Temperature	+80°C
Connection	Dişli	ISO (BSP) – ANSI (NPT)
Hydraulic Connections	Standard	Reinforced Nylon (Air Break) Hydraulic Hose
Current Connections	Standard	Reinforced Nylon (Air Break) Hydraulic Hose

Globe Type Control Valves Size and Weight Table

DN		L		H		WEIGHT	
inch	mm	inch	mm	inch	mm	inch	mm
2"	50						
2 ½"	65						
3"	80						
4"	100						

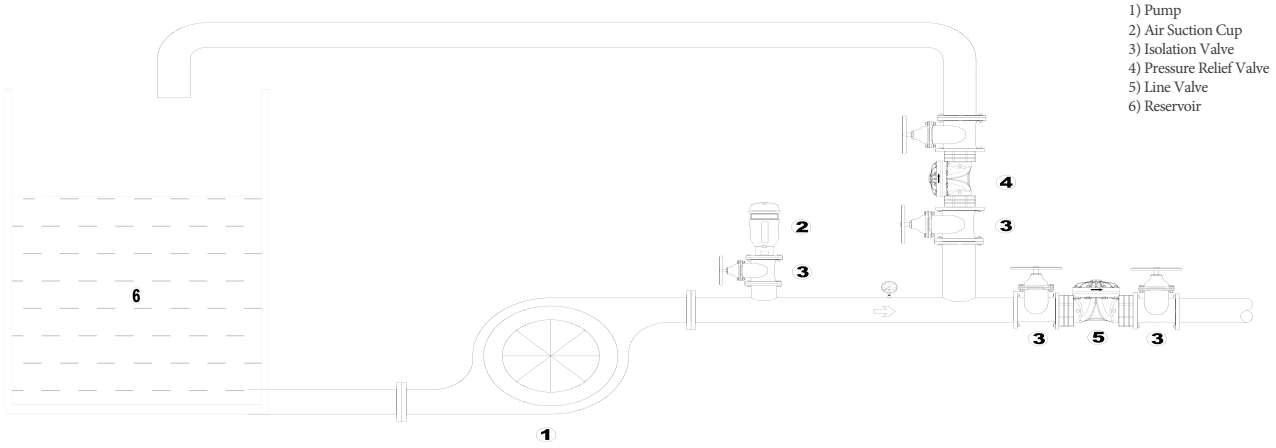
NOTE: Weight and valve height (h) do not include accessories.

Main Parts



1	Body	Reinforced Polyamide
2	Lid	Reinforced Polyamide
3	Diaphragm	Court Fabric Reinforced Natural Rubber
4	Spring Release Ring	Reinforced Polyamide
5	Spring	Stainless
6	Bolt	Stainless
8	Nut	Ms-58

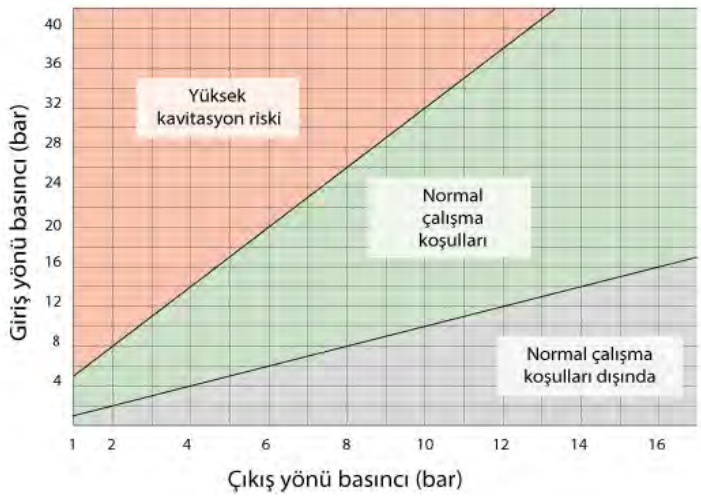
Example Application



Flow Performance

Diameter	*mm*	*50*	*65*	*80*	*100*
	İnch	*2”*	*2½”*	*3”*	*4”*
kv	*m³/h- 1 Bar*				

Cavitation Graph



Flow
(m3/h)

Pressure Loss Graph

