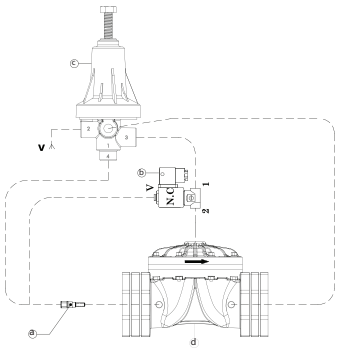
CONTROL VALVES

300 Series Plastic Control Valves

Solenoid-controlled pressure reducing control valve



Technical Drawing



a) Finger Filter
b) Solenoid Valve
c) Pilot Pressure Reducer
d) Body

Product Description

Solenoid-controlled pressure reducing valves are hydraulic control valves that provide opening and closing via solenoid control by reducing a high inlet pressure to a desired lower pressure value. The pressure reducing valve maintains a constant outlet pressure value without being affected by changes in flow rate and inlet pressure. When the valve inlet pressure in the system falls below the set outlet pressure value, the valve opens completely. The valve can be used in horizontal or vertical positions in the system. Control of this valve is provided by control devices such as time relays, switches, PLC control units, etc. Plastic 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

- Horizontal and vertical mounting is possible.
- During product ordering, information regarding maximum flow rate, operating pressure, line diameter, connection type, maximum inlet pressure, and desired outlet pressure value should be provided.
- The outlet pressure is kept constant at the desired value without being affected by inlet pressure fluctuations.
- Provides low pressure loss and regular flow.
- Easy and precise adjustment to the desired pressure.
- Pressure reduction without being affected by pressure and flow rate changes in the system.
- Manual opening and closing.
- Easy maintenance. Low energy consumption.
- Maintenance can be performed without removing it from the pipeline.

Application Areas

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

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.

Adjustment

- Power is supplied to the solenoid coil on the main valve via the control panel.
- The main valve has 2 pilot valves. Turning the pilot valve adjustment screw clockwise increases the pressure. Turning it counterclockwise decreases the pressure.
- Once the desired pressure value is reached, the lock nut under the adjustment screw is tightened to maintain the pressure.



Diameter	2" DN50	2 1/2" DN65	3" DN80	4" DN100
Code	GP10EKBD 50	GP10EKBD 65	GP10EKBD 80	GP10EKBD 100



Recommended Work Values

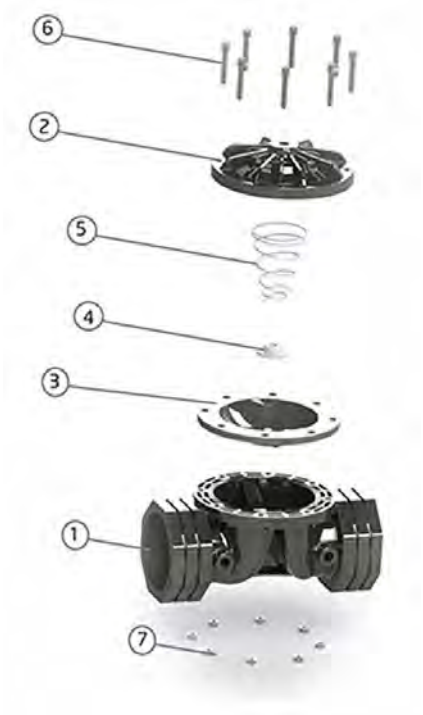
Working Pressure	Standard	1-10 bar (10-145 psi)
Temperature	Min.Operating Temperature	-10°C
	Max.Operating Temperature	+80°C
Connection	Threaded	ISO (BSP) – ANSI (NPT)
Hydraulic Connections	Standard	Reinforced Nylon (Air Break) Hydraulic Hose
Current Links	Standard	Reinforced Nylon (Air Break) Hydraulic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

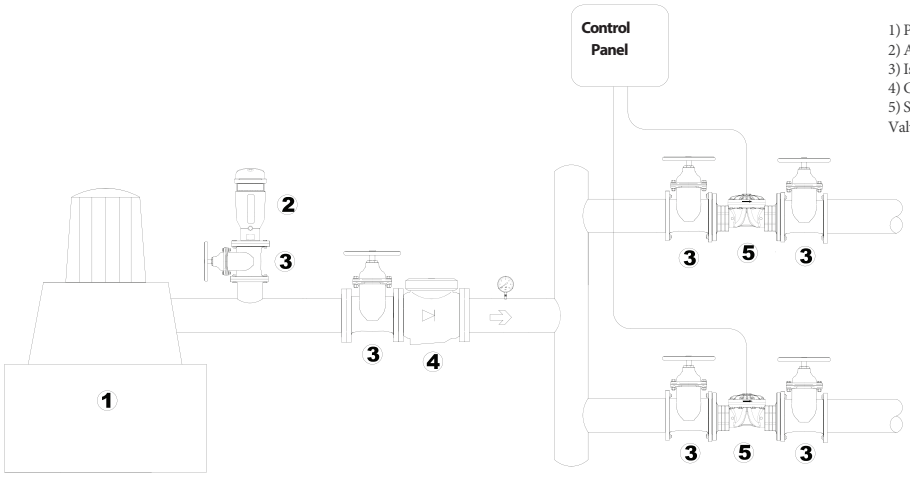
NOTE: Weight and valve height (h) do not include accessories.

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



1) Pump
2) Air Suction Cup
3) Isolation Valve
4) Check Valve
5) Solenoid Controlled Pressure Reducing Control Valve

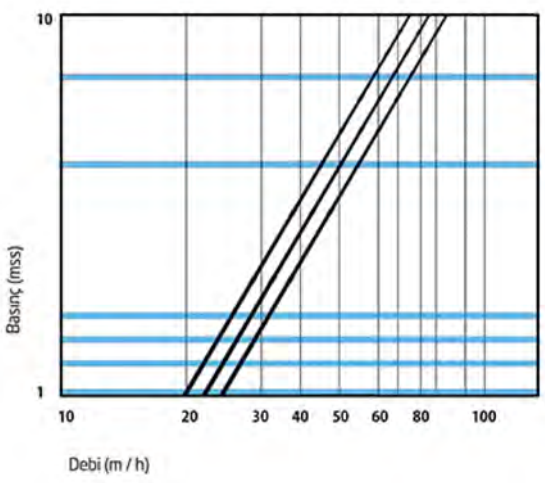
Flow Performance

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

Cavitation Graph



Pressure Loss Graph



Flow
(m3/h)