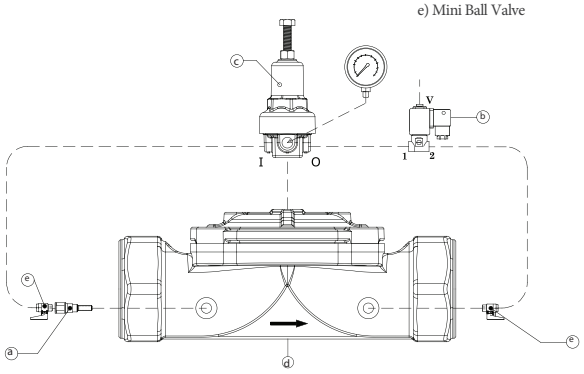


Technical Drawing

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



Product Description

BKV 516 Series solenoid-controlled pressure reducing valves are hydraulic control valves that reduce a high inlet pressure to a desired lower pressure value.

Control of the main valve is achieved via a 3/2-way solenoid valve mounted on it. The electrical signal to the solenoid valve is provided by a control device, time relay, switch, PLC control unit, etc.

The valve is a hydraulic control valve with a diaphragm actuator that operates with line pressure. The double-chamber diaphragm actuator provides fast and shock-free opening/closing.

Production Standards

DN50 ⟹ DN80	
Pressure Range	1 bar ⟹ 16 bar
Connection	ISO (BSP) - ANSI (NPT)
Paint	Electrostatic Powder Coating
Temperature	-10 °C +80 °C

Features

- During product ordering, information regarding maximum flow rate, operating pressure, line diameter, connection type, max. inlet pressure, and desired outlet pressure value must be provided.
- Horizontal and vertical mounting is possible.
- 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
- Fire extinguishing
- Industrial applications
- Irrigation and drinking water systems

Working Principle

- Closed position: The valve is closed by applying pressure to the diaphragm with 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 mini ball valve at the outlet of the two mini ball valves on the main valve is closed. Turning the pilot valve adjustment screw clockwise increases the pressure. Turning it counterclockwise decreases the pressure.
- When the desired pressure value is reached, the mini ball valve at the outlet is opened by tightening the lock nut under the adjustment screw.



Diameter	2" DN50	2 1/2" DN65	3" DN80
Code	GD16BDEK 50	GD16BDEK 65	GD16BDEK 80



Recommended Work Values

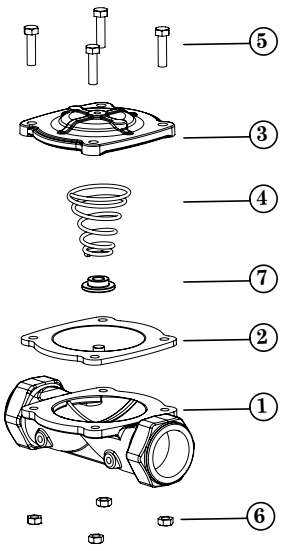
Working Pressure	Standard	1-16 bar (10-160 psi)
Temperature	Min.Operating Temperature	-10°C
	Max.Operating Temperature	+80°C
Connection	Flanged	EN 1092-2 ISO 7005-2
	Threaded	ISO (BSP) – ANSI (NPT)
Paint Coating	Standard	Polyester
	Optional	Epoxy

Globe Type Control Valves Size and Weight Table

DN		L		D		H		Weight	
inch	mm	inch	mm	inch	mm	inch	mm	lbs	kg
2"	50	8	205	6,5	165	6,5	165	18	8,5
2 ½"	65	8	205	7,3	185	7,3	185	22	10
3"	80	11,4	290	7,9	200	7,9	200	44	20

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

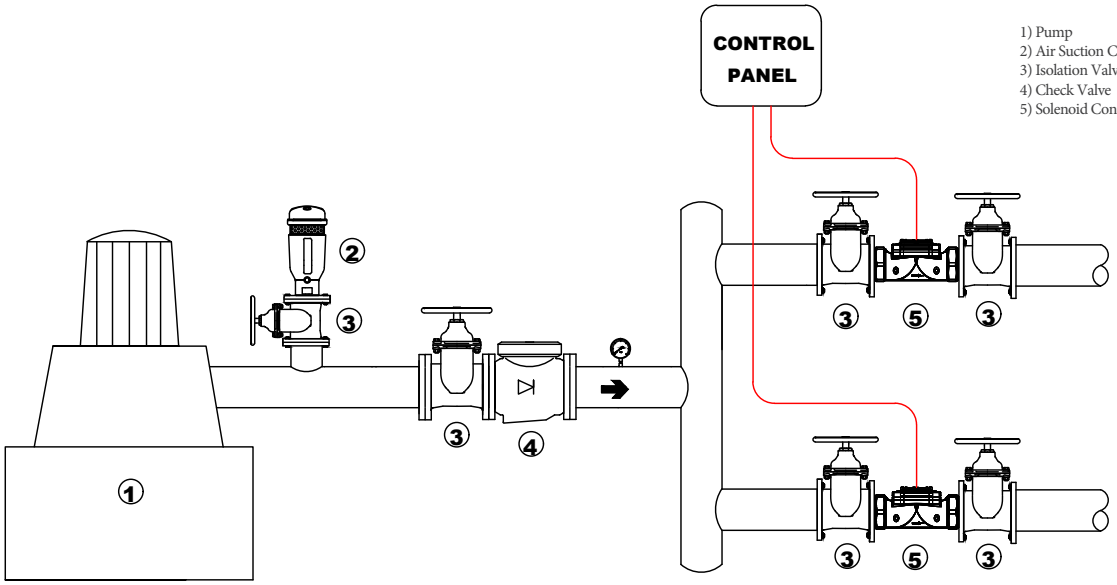
Main Parts



1	Body	GG 25 / GGG40 (EN-GJS 400-15)
2	Diaphragm	Court Fabric Reinforced Natural Rubber
3	Lid	GG 25 / GGG40 (EN-GJS 400-15)
4	Spring	Stainless
5	Bolt	Coated Steel
6	Nut	Coated Steel
7	Diaphragm Pressure Ring	Polyamid / Polyester

Maximum Working Pressure		Leakage Test Pressure		Body Test Pressure	
BAR	PSI	BAR	PSI	BAR	PSI
10	145	11	160	15	217
16	232	17,6	255	24	348

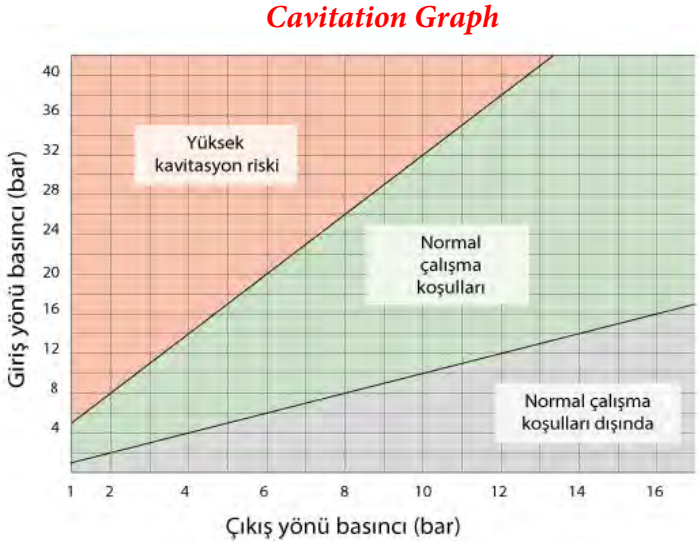
Example Application



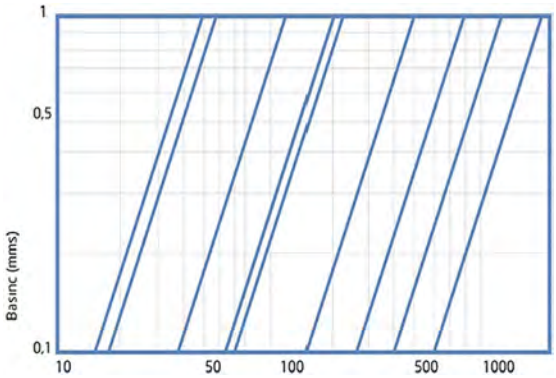
Flow Performance

Diameer	mm	50	65	80
	İnch	2"	2½"	3"
kv	m³/h- 1 Bar	70	73	167
		44	46	96

Cavitation Graph



Pressure Loss Graph



Flow m³/ h