



Product Description

The BKV216 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.

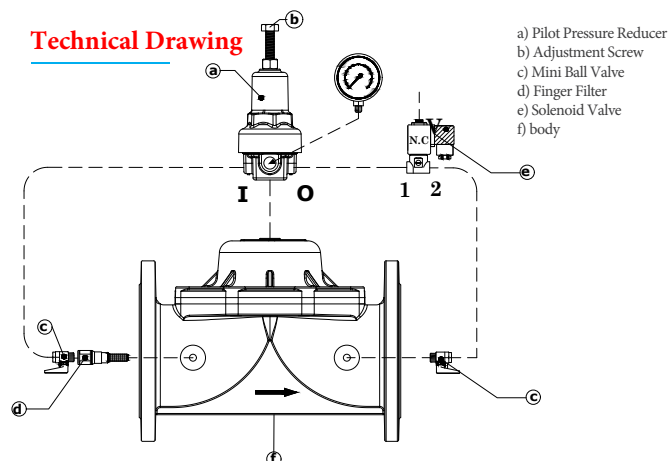
Features

- 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.

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.

Technical Drawing



Production Standards

DN40	⇒	DN300
Pressure Range	1 bar	⇒ 16 bar
Connection	Flanged EN1092-2	
Paint	Electrostatic Powder Coating	
Temperature	-10 °C +80 °C	

Application Areas

- Agricultural irrigation
- Fire extinguishing
- Industrial applications
- Irrigation and drinking water systems

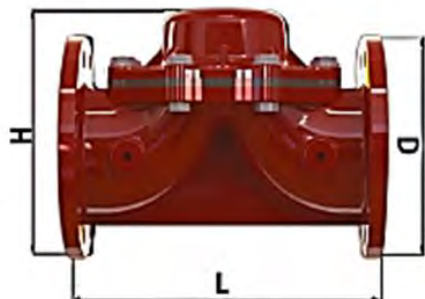
Working Principle

- 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.



Diameter	1/2" DN40	2" DN50	2 1/2" DN65	3" DN80	4" DN100	5" DN125	6" DN150	8" DN200	10" DN250	12" DN300
Code	GF16EXBD 40	GF16EXBD 50	GF16EXBD 65	GF16EXBD 80	GF16EXBD 100	GF16EXBD 125	GF16EXBD 150	GF16EXBD 200	GF16EXBD 250	GF16EXBD 300

Recommended Work Values



Working Pressure	Standard	1-16 bar (10-240 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
1 1/2"	40								
2"	50	8	205	6,5	165	6,5	165	18	8,5
2 1/2"	65	8	205	7,3	185	7,3	185	22	10
3"	80	11,4	290	7,9	200	7,9	200	44	20
4"	100	11,6	295	8,7	220	8,7	220	49	22,5
5"	125	12,8	325	9,8	250	9,8	250	57	26
6"	150	16,3	415	11,2	285	12,6	320	108	49
8"	200	18,5	470	13,4	340	15,9	405	171	78
10"	250	18,7	475	15,9	405	16,9	430	231	105
12"	300	20,9	530	18,3	465	19,5	495	327	148,5

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

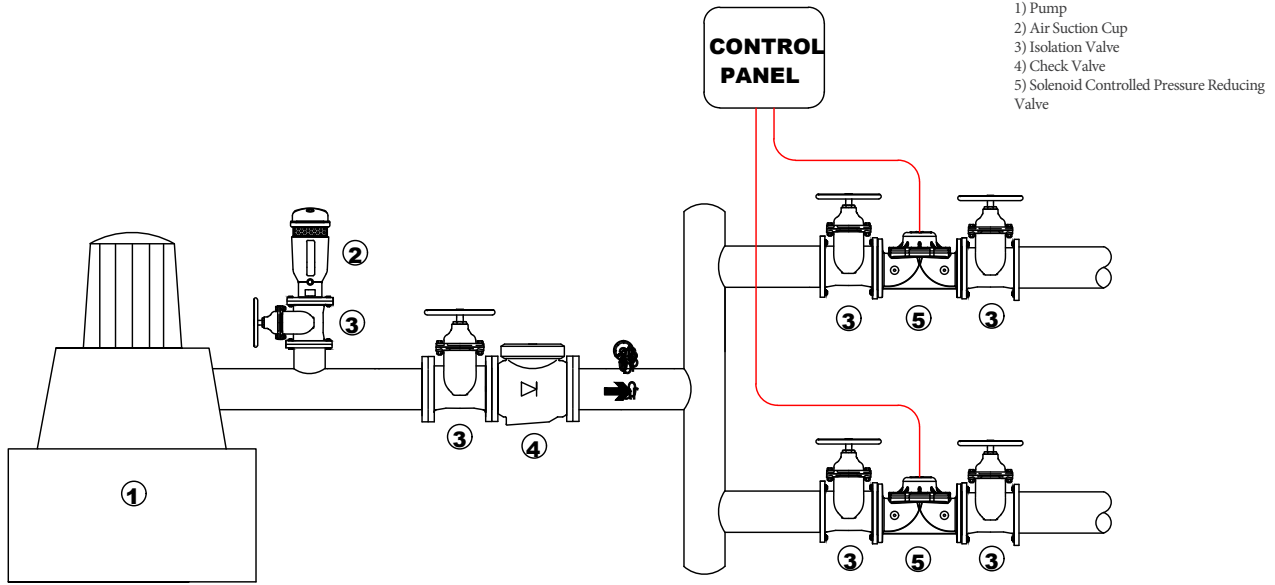
Main Parts



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	Rondela	Coated Steel
5	Bolt	Coated Steel
6	Nut	Coated Steel
7	Diaphragm Pressure Ring	Polyamid / Polyester
8	Spring	Stainless

Maximum Operating Function		Leakage Test		Body Test	
BAR	PSI	BAR	PSI	BAR	PSI
10	145	11	160	15	217
16	232	17,6	255	24	348
25	363	27,5	399	37,5	544

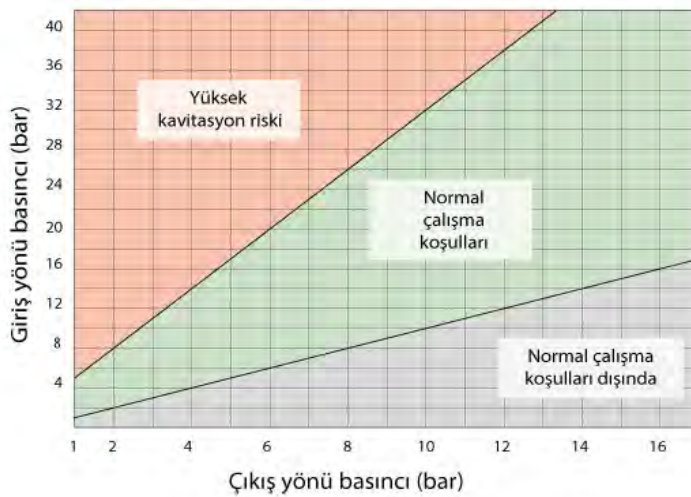
Example Application



Flow Performance

Diameter	mm	50	65	80	100	125	150	200	250	300
	Inch	2"	2½"	3"	4"	5"	6"	8"	10"	12"
kv	m³/h- 1 Bar	70	73	167	215	224	503	830	1300	1800
		44	46	96	168	171	388	685	1054	1565

Cavitation Graph



Pressure Loss Graph

