



Product Description

BKV 216 Series pressure relief control valves are designed to protect water systems experiencing excessive pressure increases by rapidly releasing the high-pressure surge with a sudden opening action. The inlet pressure is adjusted to the desired pressure via the pilot on the valve. If, for any reason, the inlet pressure in the system exceeds the set value, the valve opens quickly, releasing the excess pressure and protecting the system. Despite its sudden opening, its hydraulic operation ensures a slow closing without creating a surge. It provides a completely leak-proof closure. It can be used alone at critical points in water systems, or, depending on the situation, as a safety and warning valve in the outlet lines of pressure reducing control valves.

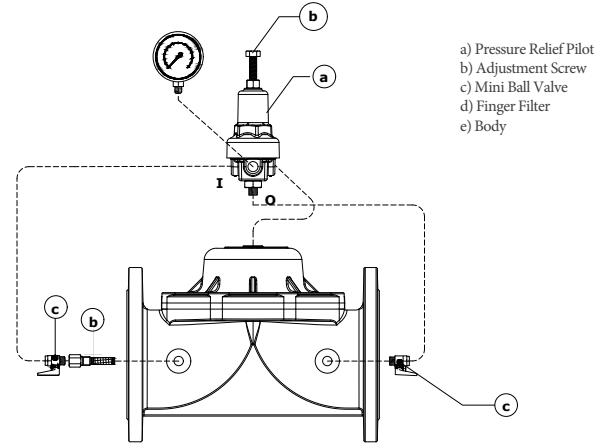
Features

- 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
- Epoxy coated paint
- 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.

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 "b" 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 "d" 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.

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

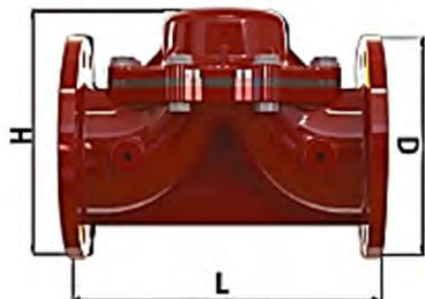
Working Principle

- 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	GF16BTV 40	GF16BTV 50	GF16BTV 65	GF16BTV 80	GF16BTV 100	GF16BTV 125	GF16BTV 150	GF16BTV 200	GF16BTV 250	GF16BTV 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.

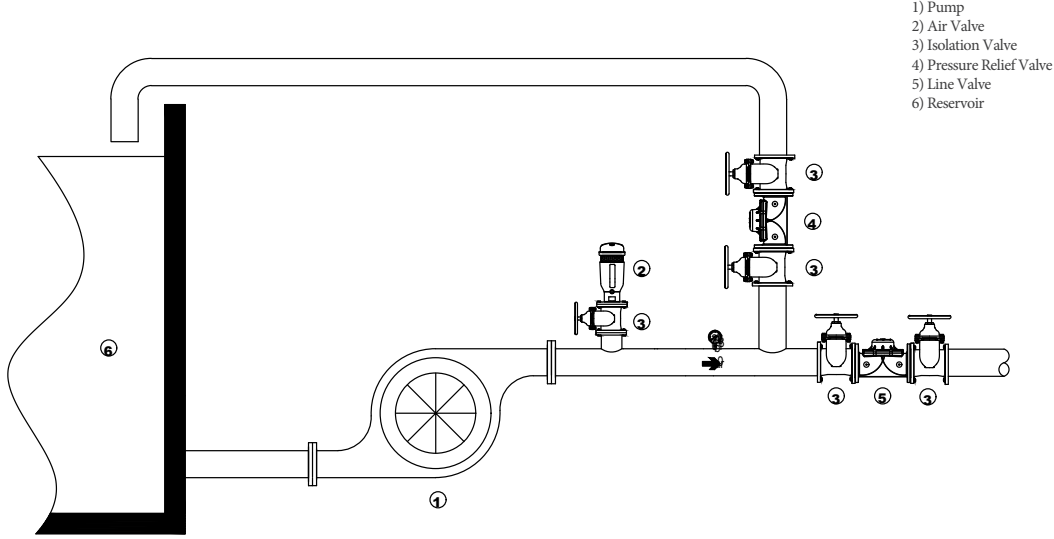
Main Parts



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

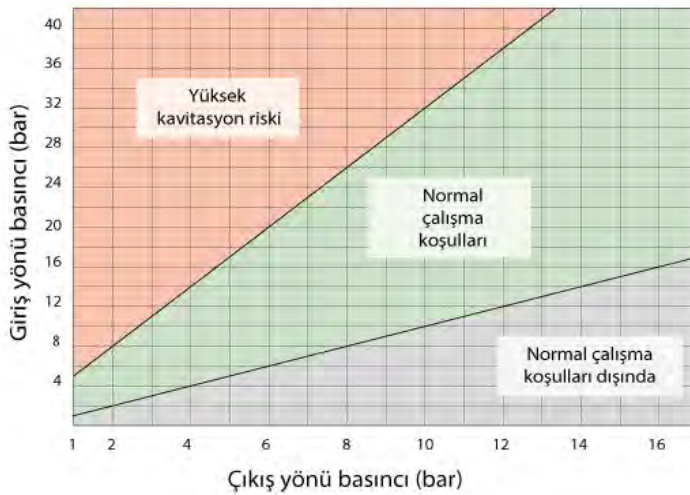
Example Application



Flow Performance

Nominal 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

