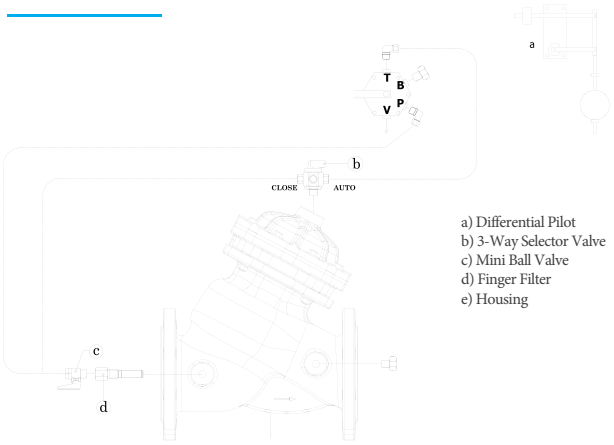
Differential Float Level Control Valve



Technical Drawing



a) Differential Pilot
b) 3-Way Selector Valve
c) Mini Ball Valve
d) Finger Filter
e) Housing

Product Description

The BKV 216 Series differential float level control valve is a hydraulic control valve that can control the water level in tanks or reservoirs within desired ranges. Thanks to the 4/3-way differential control pilot mounted in the control chamber of the main valve, the main valve closes smoothly and completely leak-proof when the water level reaches the desired maximum level. The maximum and minimum water levels in the tank or reservoir can be easily adjusted to the desired value within a very wide range. Due to this feature, the pump does not constantly switch on and off during level control in tanks or reservoirs fed by a pump. The valve maintains a constant water level within the desired range without being affected by flow rate and pressure changes. It can be easily used in tanks or reservoirs fed from the bottom or top.

Features

- Reliable hydraulic operation,
- Drip-proof sealing
- Positive shut-off.
- Proportional flow,
- Fully automatic operation,
- Always full tank or reservoir,
- Easy level adjustment

Adjustment

- Connect the valve to the main line.
- Mount the differential pilot to the tank as shown in the technical drawing.
- Connect the hoses supplied with the valve between the valve and the float as shown in the drawing.
- Set the 3-way selector on the valve to the auto position.
- Operate the valve by supplying water to the line.

Production Standards

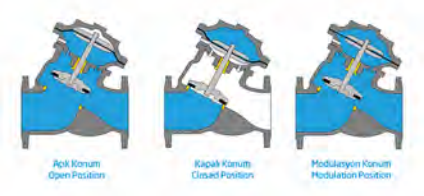
DN40 ⟹ DN500	
Pressure Rang	1 bar ⟹ 16 bar
Connection	Flanged EN1092-2
Paint	Electrostatic Powder Coating
Temperature	-10 °C +80 °C

Application Areas

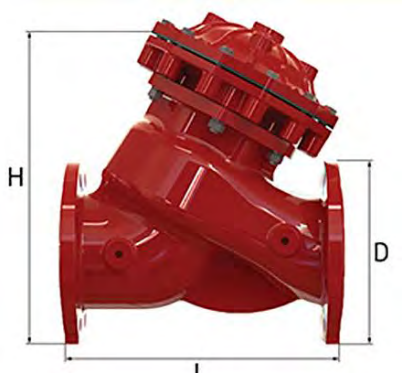
- Agricultural irrigation
- Fire extinguishing
- Industrial applications
- Irrigation and drinking water systems

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.



Nominal Diameter	1 1/2" DN40	2" DN50	2 1/2" DN65	3" DN80	4" DN100	5" DN125	6" DN150	8" DN200	10" DN250	12" DN300	14" DN350	16" DN400	18" DN450	20" DN500
Product Code	YF16DFV 40	YF16DFV 50	YF16DFV 65	YF16DFV 80	YF16DFV 100	YF16DFV 125	YF16DFV 150	YF16DFV 200	YF16DFV 250	YF16DFV 300	YF16DFV 350	YF16DFV 400	YF16DFV 450	YF16DFV 500



Recommended Work Values

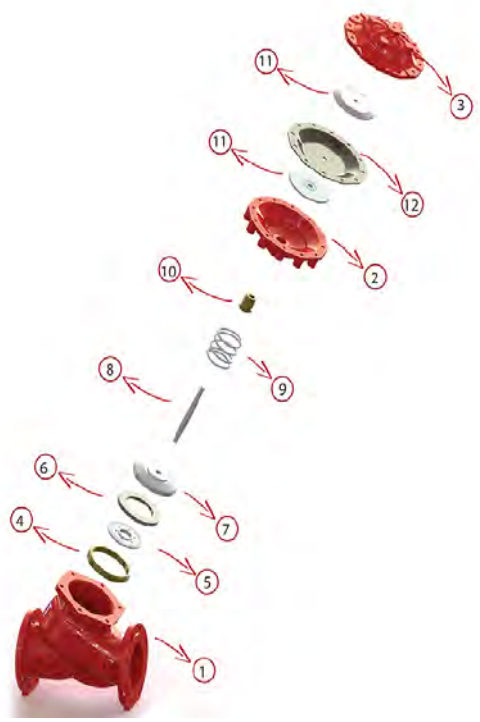
Working Pressure	Standard	1-16 bar (10-240 psi)
Temperature	Min.Operating Temperature	-10°C
	Max.Operating Temperature	+80°C
Connections	Flanged	EN 1092-2 ISO 7005-2
	Threaded	ISO (BSP) – ANSI (NPT)
Paint Coating	Standard	Polyester
	Optional	Epoksi

Y-Type Control Valve Size and Weight Chart

DN		L		D		H		Weight	
inch	mm	inch	mm	inch	mm	inch	mm	lbs	kg
1 ½"	40	8,5	215	5,9	150	10,6	270	33	15
2"	50	8,7	220	6,5	165	10,6	270	35	16
2 ½"	65	8,7	220	7,3	185	11,2	285	39	18
3"	80	10,60	270	7,9	200	13,4	340	59	27
4"	100	12,80	325	8,7	220	15,4	390	85	39
5"	125	13,20	335	9,8	250	16,5	420	97	44
6"	150	16,93	430	11,2	285	20,5	520	200	91
8"	200	21,26	540	13,4	340	26,0	660	399	181
10"	250	24,60	625	15,9	405	30,5	775	590	268
12"	300	26,97	685	18,3	465	31,9	810	661	300
14"	350	34,3	870	20,5	520	41,9	1065	1569	712
16"	400	34,3	870	23,0	585	43,1	1095	1598	725
18"	450	43,9	1115	56,3	1430	53,7	1365	3042	1380
20"	500	43,9	1115	56,3	1430	53,7	1365	3086	1400

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

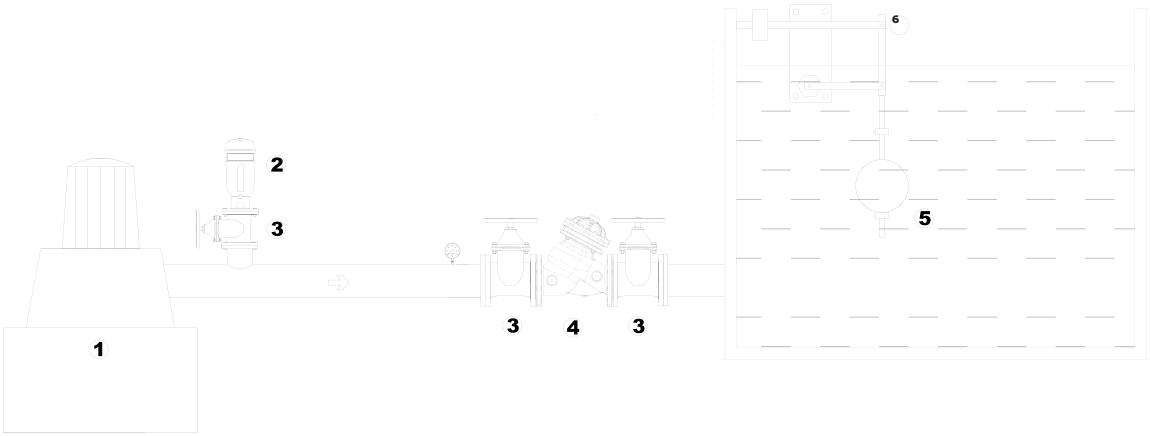
Main Parts



1	Body	GGG40 (EN-GJS 400-15) cast iron
2	Intermediate Body	GGG40 (EN-GJS 400-15) cast iron
3	Lid	GGG40 (EN-GJS 400-15) cast iron
4	Sealing Bushing	Brass/Bronze
5	Flap Pressing Cover	Stainless
6	FlapSeal	Buna-N
7	Flap	Stainless
8	Shaft	Stainless
9	Spring	Stainless
10	Intermediate Body Shaft Bearing	Brass/Bronze
11	Diaphragm Printing Disc	Stainless
12	Diaphragm	Nopren (Nylon based)

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
25	363	27,5	399	37,5	544

Example Application

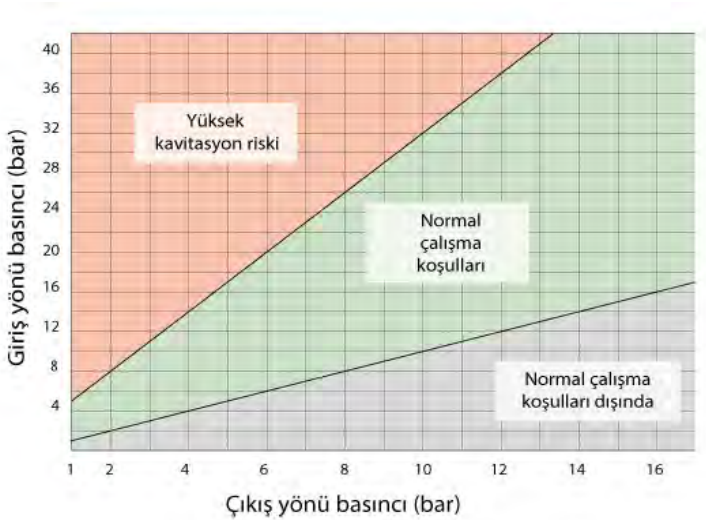


a) Pump
b) Air Suction Cup
c) Isolation Valve
d) Differential Float Level Control Valve
e) Reservoir
f) Differential Pilot

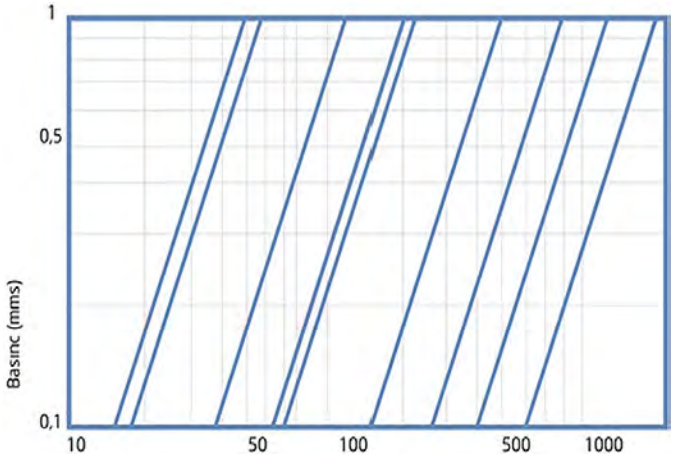
Flow Analysis Table

Nominal Diameter	mm	50	65	80	100	125	150	200	250	300	350	400	450	500
	İnch	2"	2½"	3"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"
kv	m³/h- 1 ar	70	73	167	215	224	503	830	1300	1800				
		44	46	96	168	171	388	685	1054	1565				

Cavitation Graph



Pressure Loss Graph



Flow
(m3/h)