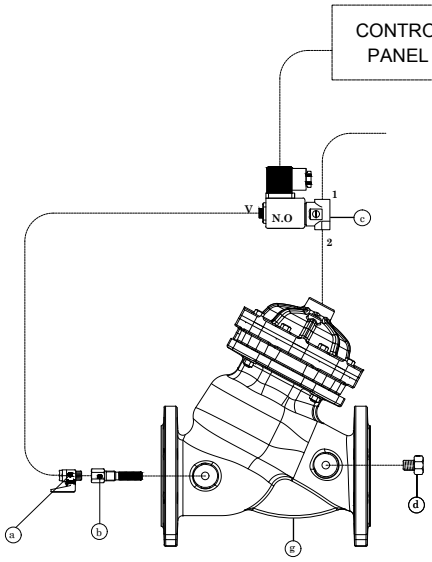
116 Series Y-Type Control Valves

Electric Float Level Control Valve



Technical Drawing



a- Mini Ball Valve
b- Finger Filter
c- Solenoid
d- Blind Plug
e- Control Panel
f- Electric Float Switch
g- Housing

Product Description

BKV 116 Series Horizontal Float Level Control Valves provide automatic water level control for tanks or reservoirs. The main valve is controlled by an electric float. When the water level drops, the float sends a signal to the solenoid coil on the main valve, causing the valve to open; when it fills, it closes. When the set level is reached, the signal sent to the coil is cut off, and the valve closes, maintaining a constant tank level.

Production Standards

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

Features

- Operates with mains pressure, no extra energy required
- Easy maintenance
- Adjustable on/off speed (optional)
- Can be controlled at different voltages
- Manual on/off
- Low energy consumption
- Low cavitation risk.

Application Areas

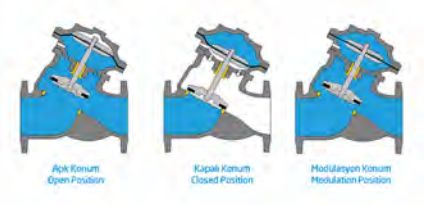
- Agricultural irrigation
- Fire extinguishing
- Industrial applications
- Irrigation and drinking water systems

Adjustment

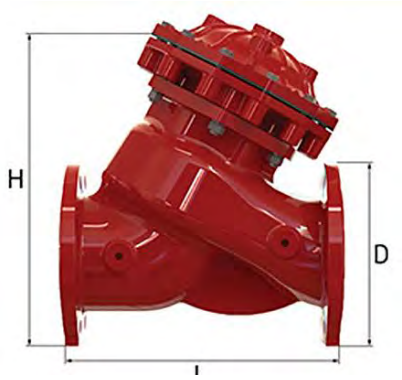
- Mount the electric float switch, indicated by “f”, securely according to the water level in the tank or reservoir and connect its wires to the control panel.
- Connect the wires of the solenoid pilot valve, indicated by “c”, to the control panel appropriately.
- Then, turn on the water.

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	YF16EFV 40	YF16EFV 50	YF16EFV 65	YF16EFV 80	YF16EFV 100	YF16EFV 125	YF16EFV 150	YF16EFV 200	YF16EFV 250	YF16EFV 300	YF16EFV 350	YF16EFV 400	YF16EFV 450	YF16EFV 500



Recommended Work Values

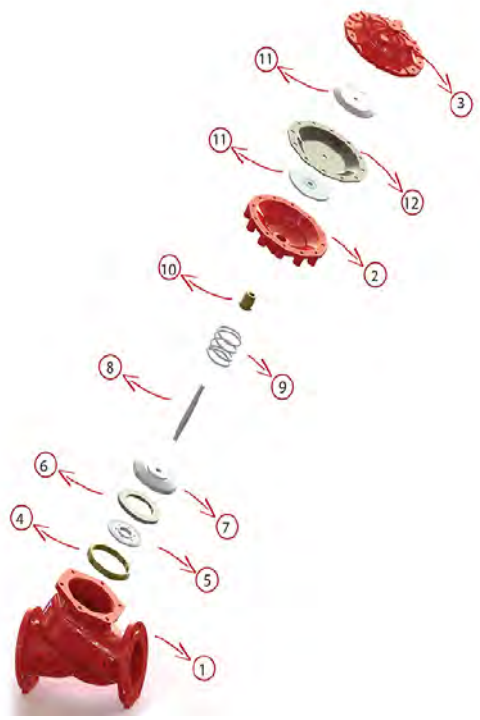
Working Pressure	Standard	1-16 bar (10-240 psi)
Temperature	Min.Operating Temperature	-10°C
	Max.Operating Temperature	+80°C
Connection	Flanged	EN 1092-2 ISO 7005-2
	Threaded	ISO (BSP) – ANSI (NPT)
Paint Coating	Standard	Polyester
	Optional	Epoxy

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.

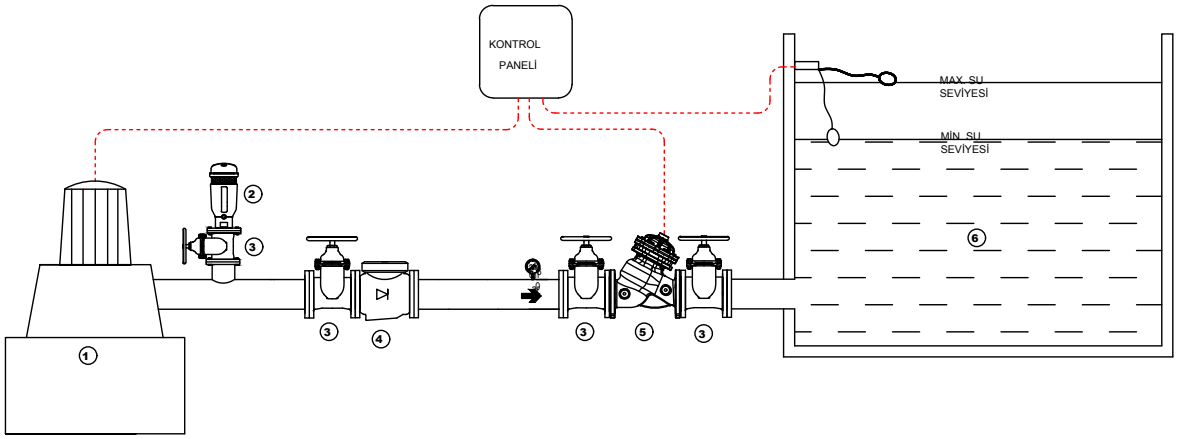
Main Parts



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 press Cover	Stainless
6	Flap Seal	Buna-N
7	Flap	Stainless
8	Shaft	Stainless
9	Spring	Stainless
10	Intermediate Body Shaft	BBrass/Bronze
11	Diaphragm Press 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

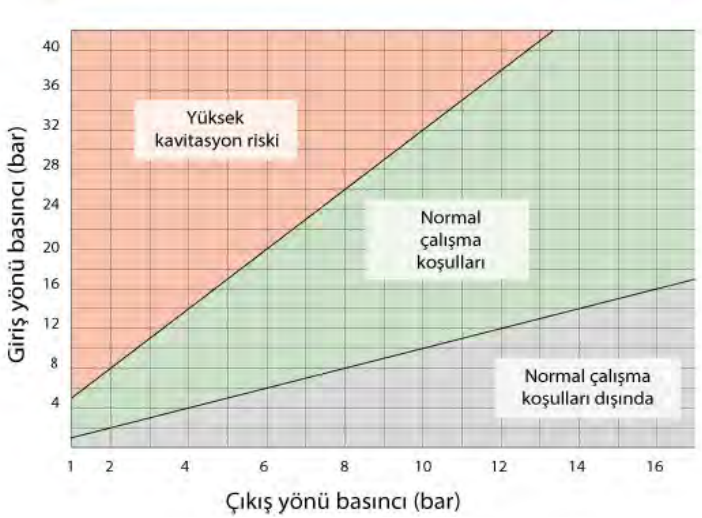


1- Pump
2- Air Vent
3- Isolation Valve
4- Check Valve
5- Electric Float Level Control Valve
6- Reservoir
7- Electric Float

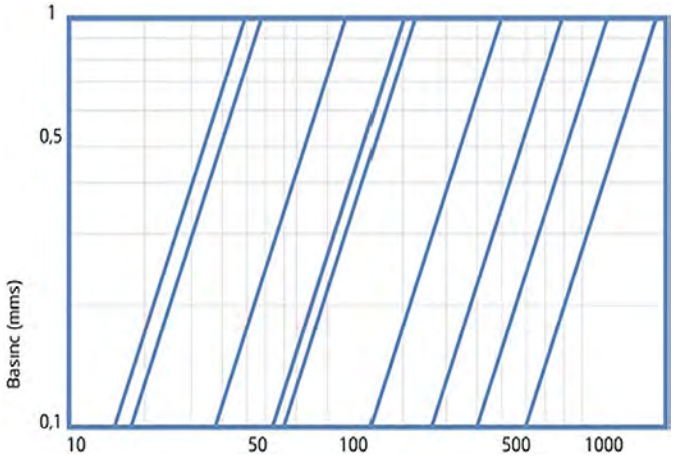
Flow Analysis Table

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)