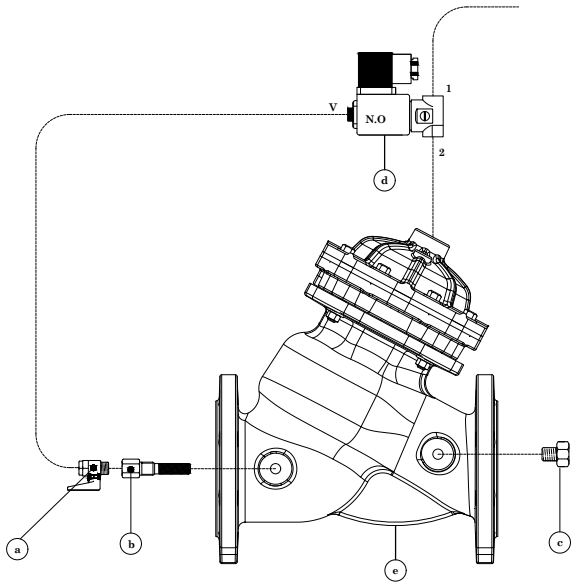
Solenoid Controlled On/Off Valve



Technical Drawing



a- Mini Ball Valve
b- Finger Filter
c- Blind Plug
d- Solenoid
e- Main Body

Product Description

BKV 116 Series Solenoid Controlled On/Off Valves: These can be used as an alternative to classic on/off valves. The opening and closing operation is performed by a solenoid, remotely controlled. These valves are controlled by control devices, time relays, switches, PLC control units, etc.

Production Standards

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

Features

- Low energy consumption
- Minimum pressure loss
- Adjustable opening/closing speed (optional)
- Easy maintenance
- Ability to operate at different voltages
- Low cavitation risk.

Application Areas

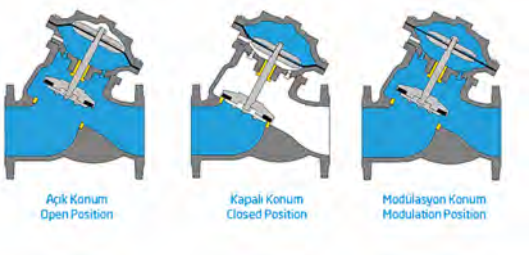
- Agricultural irrigation
- Fire extinguishing
- Industrial applications
- Irrigation and drinking water distribution systems

Adjustment

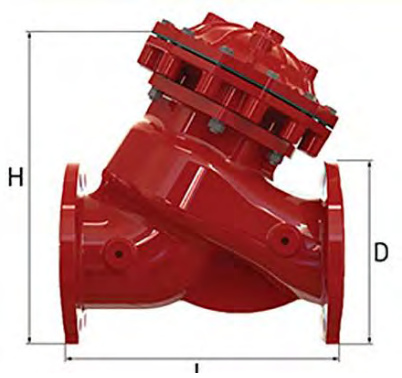
- Set the three-way selector switch on the valve to the Auto position.
- Connect the solenoid valve on the valve to the control device.
- Start the pump.
- The valve will open when power is supplied to the coil and will close when power is cut off.

Working Principle

- Closed position: The valve is closed by applying pressure to the diaphragm through fluid pressure..
- Open position: internal pressure causes the diaphragm to move 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	YF16EKV 40	YF16EKV 50	YF16EKV 65	YF16EKV 80	YF16EKV 100	YF16EKV 125	YF16EKV 150	YF16EKV 200	YF16EKV 250	YF16EKV 300	YF16EKV 350	YF16EKV 400	YF16EKV 450	YF16EKV 500



Recommended Work Values

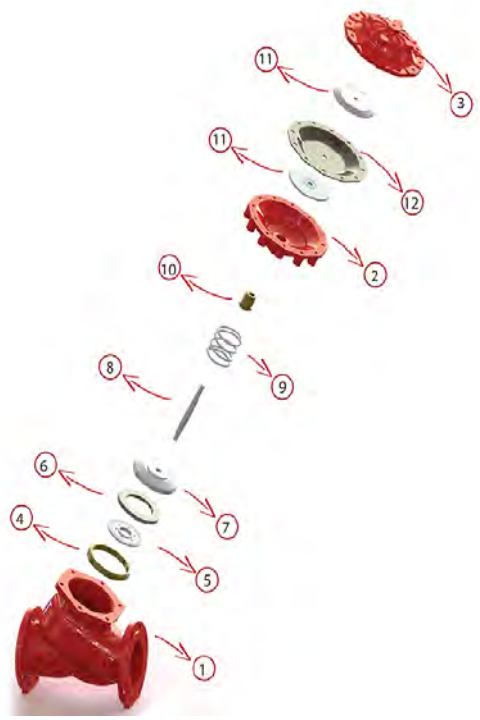
Working Pressure	Standartd	1-16 bar (10-240 psi)
Sıcaklık	Min.Operating Temperature	-10°C
	Max.Operating Temperature	+80°C
Bağlantı	Flanged	EN 1092-2 ISO 7005-2
	Threaded	ISO (BSP) – ANSI (NPT)
Boya Kaplama	Standard	Polyester
	Optional	Epoxy

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.

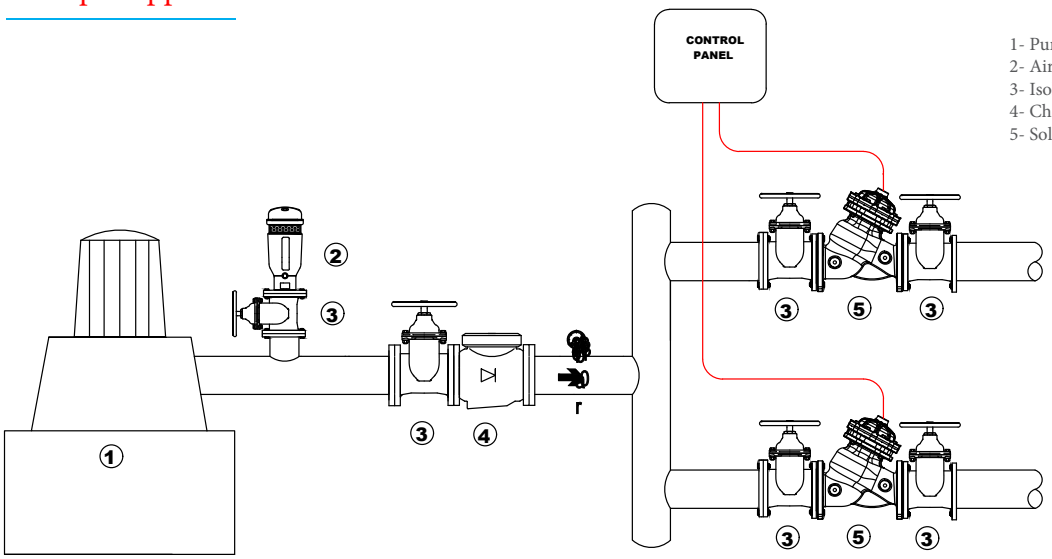
Main Parts



1	Body	GGG40 (EN-GJS 400-15) Cast iron
2	Intermediate Body	GGG40 (EN-GJS 400-15) Cast iron
3	Lıd	GGG40 (EN-GJS 400-15) Cast iron
4	Sealing Bushing	Brass/Bronze
5	Flap Press Cover	Stainless
6	FlapSeal	Buna-N
7	Flap	Stainless
8	Shaft	Stainless
9	Sprıng	Stainless
10	Intermediate Body Shaft	Brass/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

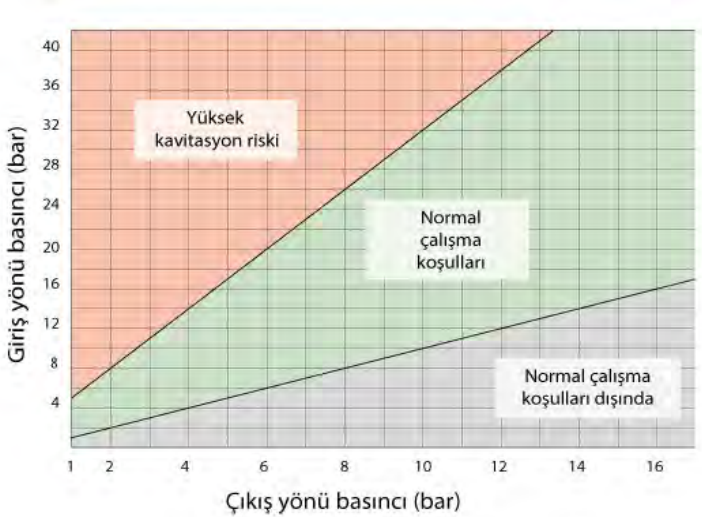


1- Pump
2- Air Vent
3- Isolation Valve
4- Check Valve
5- Solenoid Controlled On/Off Valve

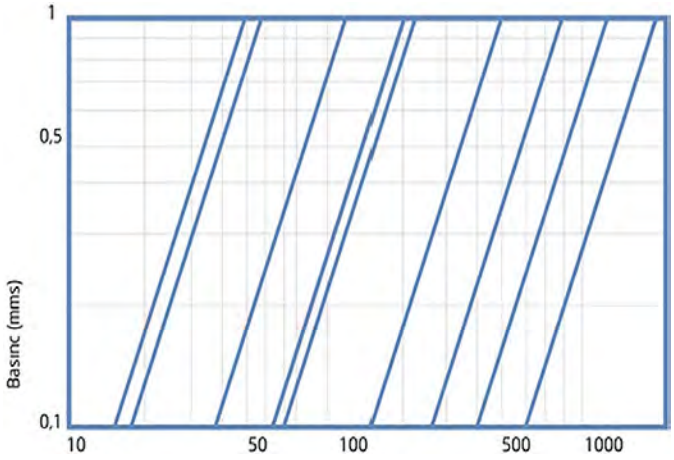
Flow Analysis Table

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)