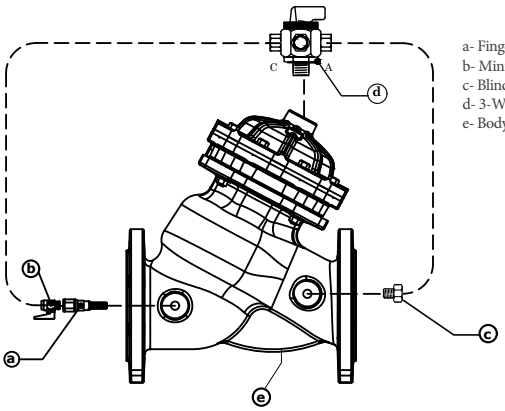


Technical Drawing



a- Finger Filter
b- Mini Ball Valve
c- Blind Plug
d- 3-Way Selector Valve
e- Body

Product Description

Manual hydraulic control valves are hydraulic control valves that operate with line pressure and provide opening and closing via a 3-way selector valve. The minimum opening pressure of the valve is 0.5 bar. Thanks to its flexible diaphragm, rigidly mounted valve stem, and steel spring, it provides easy and fast control in high-pressure applications and closes completely leak-proof without creating impact. By adding different pilot valves to the main valve body, it can be used in many different applications. The valve will be a line pressure-operated diaphragm actuator, flap-closure hydraulic control valve. With its double-chamber diaphragm actuator, it will provide fast and impact-free opening/closing and will prevent clogging by being less sensitive to solid foreign matter in the fluid.

Production Standards

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

Features

- **The manual on/off valve must be used with the same dimensions as the line.**
- **During product ordering, information regarding maximum flow rate, operating pressure, line diameter, connection type, maximum inlet pressure, and desired outlet pressure value should be provided.**
- **Can be mounted horizontally and vertically.**
- **Provides low pressure loss and consistent flow.**

It operates with the pressure in the network or line and does not require extra energy.

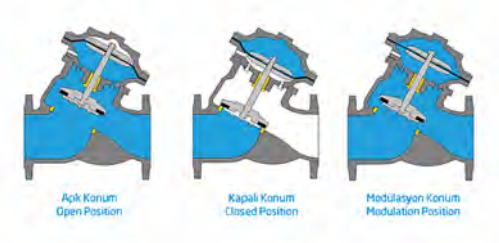
- **It is not affected by pressure and flow rate changes in the system.**
- **Low cavitation risk.**

Application Areas

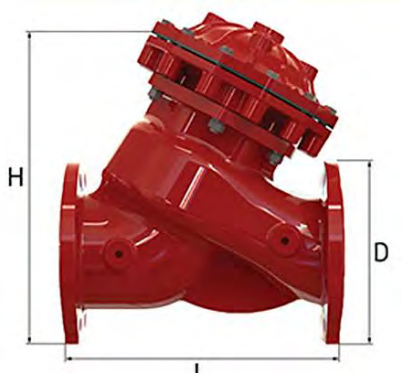
- Agricultural irrigation
- Fire extinguishing
- Industrial applications
- Irrigation and drinking water distribution systems

Working Principle

- Closed position: The valve is closed by applying pressure to the diaphragm through fluid pressure.
- Open position: Internal line pressure causes the diaphragm to move upwards, allowing flow.
- Modulation position: Internal and external line pressures are balanced, keeping the diaphragm in a fixed position.



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	YF16MV 40	YF16MV 50	YF16MV 65	YF16MV 80	YF16MV 100	YF16MV 125	YF16MV 150	YF16MV 200	YF16MV 250	YF16MV 300	YF16MV 350	YF16MV 400	YF16MV 450	YF16MV 500



Recommended Work Values

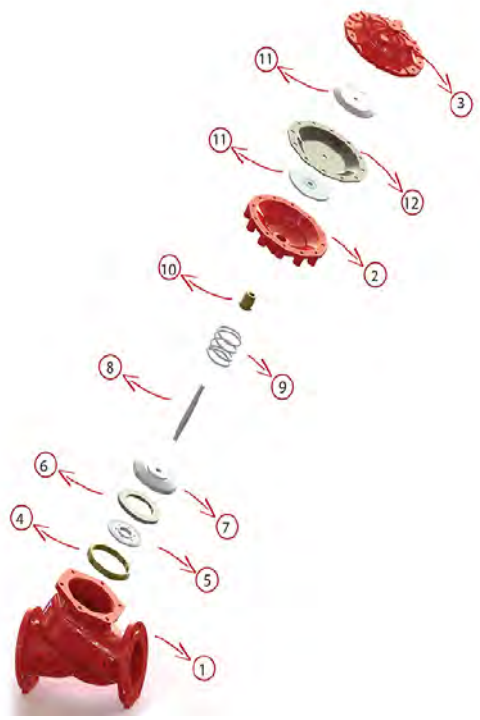
Working Pressure	Standard	1-16 bar (10-240 psi)
Temperature	Min.Operating Temperature	-10°C
	Max.Operating Temperature	+80°C
Connection	Flanged	EN 1092-2 ISO 7005-2
	Threaded	ISO (BSP) – ANSI (NPT)
Paint Coating	Standard	Polyester
	Optional	Epoxy

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.

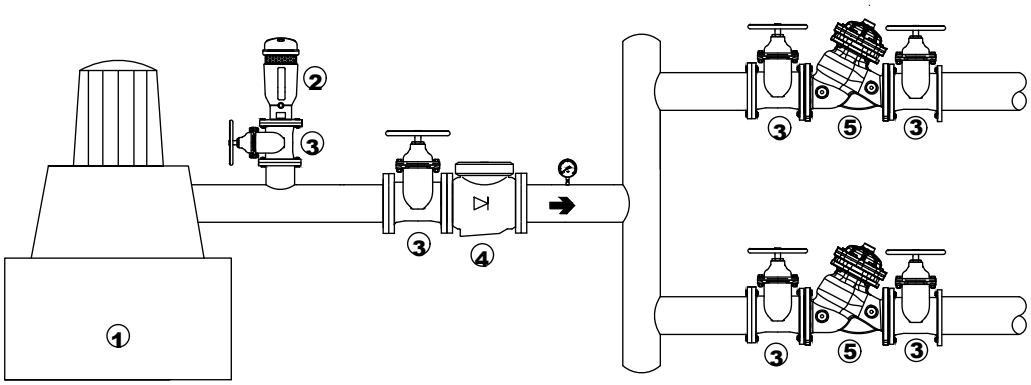
Main Parts



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	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

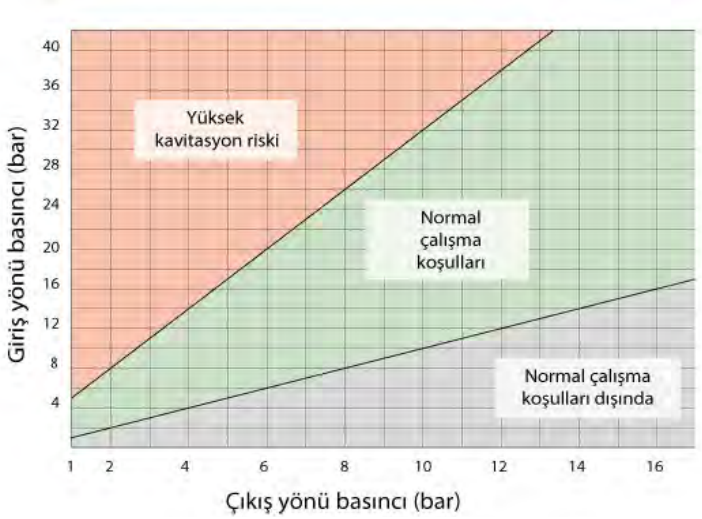


1- Pump
2- Air Vent
3- Isolation Valve
4- Check Valve
5- Manual Control Valve

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

