V4

Two-way Butterfly Valve (Asia)

버터플라이 2방향 밸브

개요

V4 버터플라이 밸브는 히팅 및 쿨링 제어에 주로 사용됩니다. 딥스위치를 통하여On-Off 타입과 비례제어 타입으로 변환 가능합니다. 또한 피드백 신호를 받을 수 있게끔 설계되어 On-Off 타입은 드라이 컨택 접점으로, 비례제어 타입은 전압 또는 전류로 신호를 받을 수 있습니다.

특징

- Wide size range(DN50…DN600 for PN16, DN50…DN350 for PN25)
- On-Off 또는 비례제어 타입
- 수동조작 가능 – Non clutch design
- 웜기어 형식
- 기계적 상태 표시(현재 상황 체크 가능)
- Anti-condensation heater 내장
- 2개의 보조 리미트 스위치 내장
- 보호등급 : IP67

특성 및 규격

Action | Stem up to close port A–AB
Nominal pressure rating | PN16
Valve type | 3-way mixing
Flow characteristic | Equal percentage port A–AB, linear port B–AB
Rangeability | 50:1
Leakage rate | ≤0.1 % of kVS port A–AB, ≤1 % of kVS port B–AB
Stroke | 38 mm
Valve body |
- End connections : Flanged per ISO 7005-2
- Material : Cast iron (GG25)

Trim |
- Seat : Body integrated
- Stem : Stainless steel
- Plug : Stainless steel, skirt guided

Packing | Spring loaded PTFE cone rings
Medium temperature and pressure PN16 |
- 2 ... 120℃; 1600 kPa
- 120 ... 150℃; 1440 kPa

Maximum temperature differential in alternating hot/cold water use | 60 K
Actuators | Electric Actuators

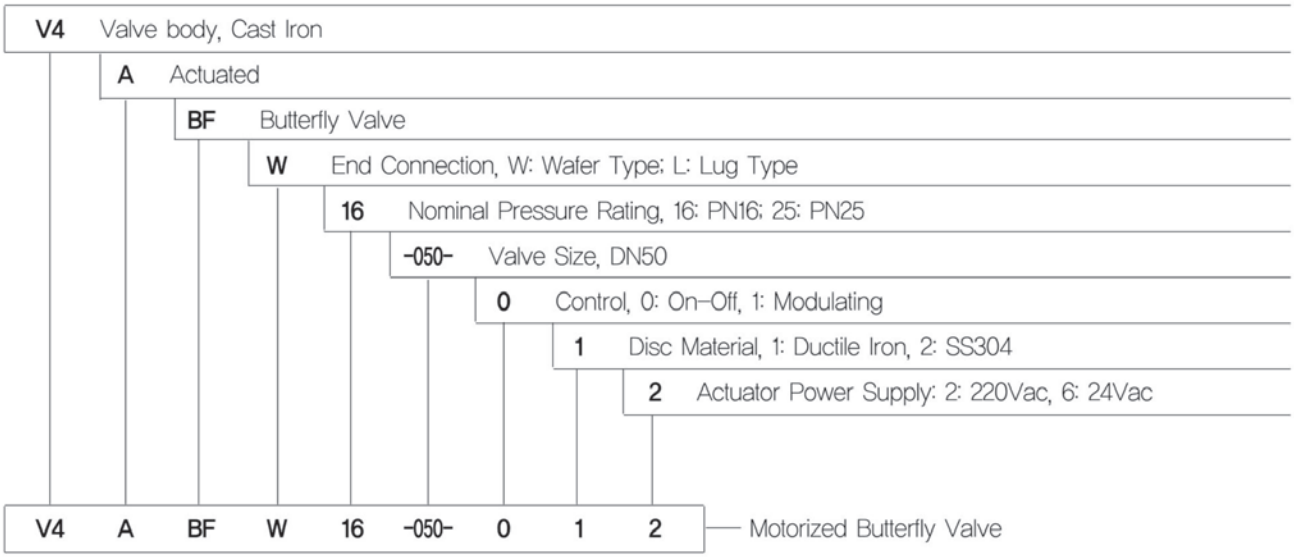
Control Type and Valve Size Data

The below table is based on differential pressure of 10 bar.

Valve Size	Assembly OS# (On-Off)	Actuator OS#	Assembly OS# (Modulating)	Actuator OS#	Valve OS#	Max Torque (Nm)	Run Time at 60Hz (sec)	Kvs (m3/h)
DN50	V4ABFW16-050-012	OM-1	V4ABFW16-050-112	OMP-1	V4BFW16-050	35	12	109
DN65	V4ABFW16-065-012	OM-1	V4ABFW16-065-112	OMP-1	V4BFW16-065	35	12	177
DN80	V4ABFW16-080-012	OM-1	V4ABFW16-080-112	OMP-1	V4BFW16-080	35	12	243
DN100	V4ABFW16-100-012	OM-1	V4ABFW16-100-112	OMP-1	V4BFW16-100	35	12	483
DN125	V4ABFW16-125-012	OM-2	V4ABFW16-125-112	OMP-2	V4BFW16-125	90	15	822
DN150	V4ABFW16-150-012	OM-2	V4ABFW16-150-112	OMP-2	V4BFW16-150	90	15	1,270
DN200	V4ABFW16-200-012	OM-3	V4ABFW16-200-112	OMP-3	V4BFW16-200	150	22	2,550
DN250	V4ABFW16-250-012	OM-4	V4ABFW16-250-112	OMP-4	V4BFW16-250	400	16	4,342
DN300	V4ABFW16-300-012	OM-4	V4ABFW16-300-112	OMP-4	V4BFW16-300	400	16	6,708
DN350	V4ABFW16-350-012	OM-7	V4ABFW16-350-112	OMP-7	V4BFW16-350	1,000	46	9,793
DN400	V4ABFW16-400-012	OM-8	V4ABFW16-400-112	OMP-8	V4BFW16-400	1,500	46	13,467
DN450	V4ABFW16-450-012	OM-9	V4ABFW16-450-112	OMP-9	V4BFW16-450	2,000	58	17,836
DN500	V4ABFW16-500-012	OM-10	V4ABFW16-500-112	OMP-10	V4BFW16-500	2,500	58	22,933
DN600	V4ABFW16-600-012	OM-12	V4ABFW16-600-112	OMP-12	V4BFW16-600	3,500	58	35,431
DN50	V4ABFW25-050-012	OM-1	V4ABFW25-050-112	OMP-1	V4BFW25-050	35	12	109
DN65	V4ABFW25-065-012	OM-1	V4ABFW25-065-112	OMP-1	V4BFW25-065	35	12	177
DN80	V4ABFW25-080-012	OM-2	V4ABFW25-080-112	OMP-2	V4BFW25-080	90	15	243
DN100	V4ABFW25-100-012	OM-2	V4ABFW25-100-112	OMP-2	V4BFW25-100	90	15	483
DN125	V4ABFW25-125-012	OM-3	V4ABFW25-125-112	OMP-3	V4BFW25-125	150	22	822
DN150	V4ABFW25-150-012	OM-3	V4ABFW25-150-112	OMP-3	V4BFW25-150	150	22	1,270
DN200	V4ABFW25-200-012	OM-4	V4ABFW25-200-112	OMP-4	V4BFW25-200	400	16	2,550
DN250	V4ABFW25-250-012	OM-4	V4ABFW25-250-112	OMP-4	V4BFW25-250	400	16	4,342
DN300	V4ABFW25-300-012	OM-6	V4ABFW25-300-112	OMP-6	V4BFW25-300	650	28	6,708
DN350	V4ABFW25-350-012	OM-7	V4ABFW25-350-112	OMP-7	V4BFW25-350	1,000	46	9,793

Product Identification System

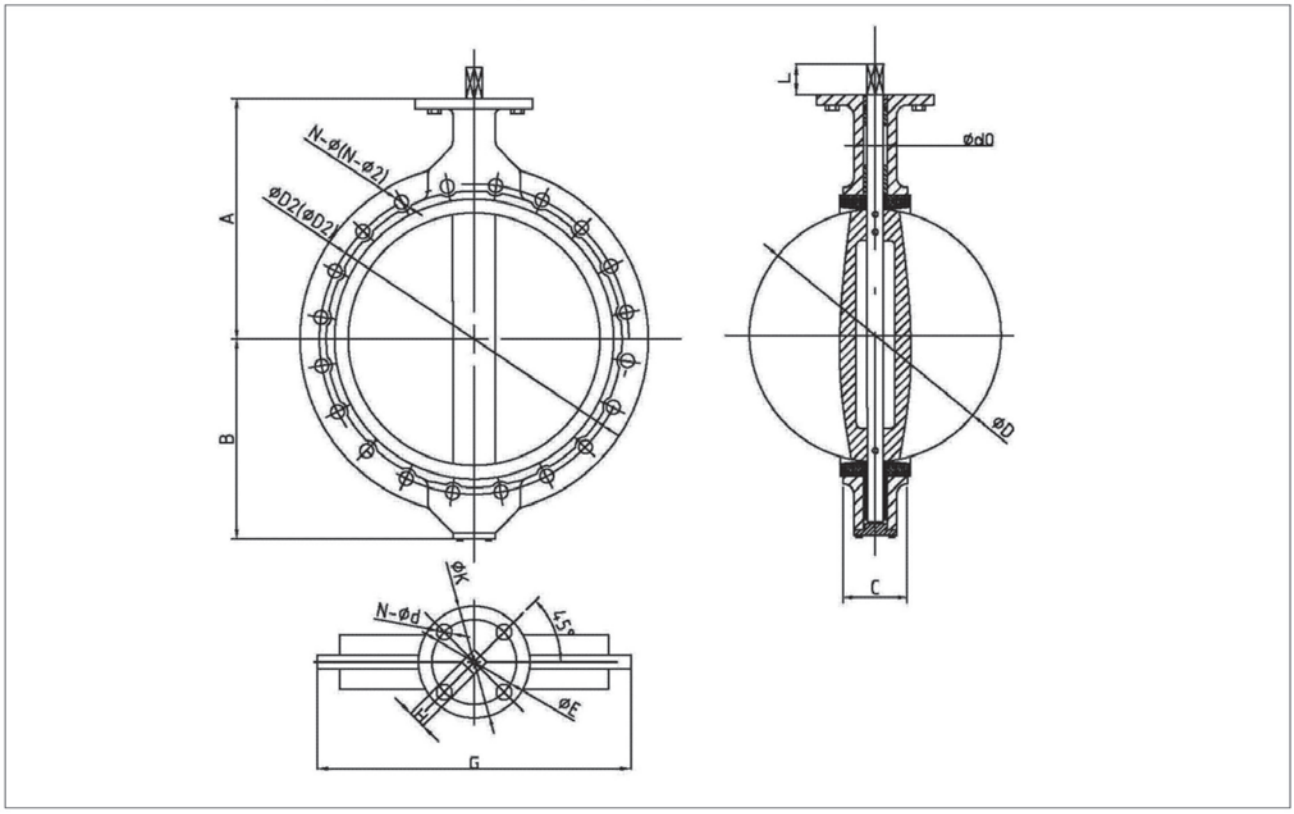
Ordering Data – the numbering system for Honeywell motorized butterfly valves:



P.S.: OS# comes with suffix –1 for Modulating version with add on Auxiliary Switch. i.e.: V4ABFW16-100-112-1 stands for: motorized butterfly valve, DN100, modulating, ductile iron disc, 220Vac, auxiliary switch.

Valve Dimensions (mm) and Weight

PN	Size		A	B	C	D	L	H	ØK	ØE	n-Ød	Ød0	G		ØD2	N-Ø2		Weight(Kg)	
	DN	Inch											Wafer	Lug		Wafer	Lug	Wafer	Lug
	50	2"	130,5	67	43	52,7	15	11	65	50	4-7	14,3	118	159	125	4-Ø18	4-M16	2,5	3,8
	65	2,5"	140	71	46	64,3	15	11	65	50	4-7	14,3	137	184	145	4-Ø18	4-M16	3,2	4,2
	80	3"	150	83	46	78,6	15	11	65	50	4-7	14,3	143	197	160	8-Ø18	8-M16	3,6	4,7
	100	4"	183	95	52	104	15	11	65	50	4-7	15,8	156	222	180	8-Ø18	8-M16	4,9	9
	125	5"	178	110	56	123	29	14	90	70	4-10	18,9	190	254	210	8-Ø18	8-M16	7	10,9
	150	6"	191	124	56	155	29	14	90	70	4-10	18,9	212	292	240	8-Ø22	8-M20	7,8	14,2
	200	8"	239	163	60	202	29	17	90	70	4-10	22,1	268	349	295	12-Ø22	12-M20	13,2	18,2
16	250	10"	285	227	68	250	39	22	125	102	4-12	28,5	325	413	355	12-Ø26	12-M24	19,2	26,8
	300	12"	315	252	78	301	39	22	125	102	4-12	31,6	403	483	410	12-Ø26	12-M24	32,5	40
	350	14"	368	267	78	333	45	22	175	140	4-18	31,6	436	527	470	16-Ø26	16-M24	41,3	56
	400	16"	400	309	102	356	45	27	175	140	4-18	33,2	488	584	525	16-Ø30	16-M27	61	96
	450	18"	422	328	114	440	45	27	210	165	4-22	38	539	635	585	20-Ø30	20-M27	79	122
	500	20"	450	361	127	491	45	36	210	165	4-22	41,2	591	705	650	20-Ø33	20-M30	128	202
	600	24"	562	459	154	592	45	36	210	165	4-22	50,7	816	832	770	20-Ø36	20-M33	188	270
	50	2"	130,5	67	43	52,8	15	11	90	70	4-10	14,3	165	-	125	4-Ø18	4-M16	3,5	-
	65	2,5"	140	71	46	64,4	15	11	90	70	4-10	14,3	185	-	145	8-Ø18	8-M16	4,5	-
	80	3"	150	83	46	78,7	15	14	90	70	4-10	15,8	200	-	160	8-Ø18	8-M16	5,1	-
	100	4"	183	95	52	104,1	15	14	90	70	4-10	18,9	235	-	190	8-Ø23	8-M20	6,8	-
25	125	5"	178	110	56	123,1	29	17	90	70	4-10	22,1	270	-	220	8-Ø27	8-M24	9,8	-
	150	6"	191	124	56	155,1	29	17	90	70	4-10	22,1	300	-	250	8-Ø27	8-M24	10,9	-
	200	8"	239	163	60	202,2	29	22	125	102	4-12	28,5	360	-	310	12-Ø27	12-M24	18,5	-
	250	10"	285	227	68	250,2	39	22	125	102	4-12	31,6	425	-	370	12-Ø30	12-M27	26,9	-
	300	12"	315	252	78	301,2	39	27	150	125	4-14	33,2	485	-	430	16-Ø30	16- M27	45,5	-



Hydraulic Characteristics

Size	Kvs at Disk Opening Angle								
	10o	20o	30o	40o	50o	60o	70o	80o	90o
50	0.08	4.0	10	19	36	51	72	101	109
65	0.16	6.4	16	30	52	79	116	164	177
80	0.24	9.7	18	31	56	93	147	221	243
100	0.40	14	29	63	112	185	293	439	483
125	0.64	23	49	107	191	315	499	748	822
150	1.6	36	76	165	294	487	771	1,156	1,270
200	2.4	72	153	332	591	977	1,547	2,321	2,550
250	3.3	123	260	564	1,006	1,664	2,634	3,951	4,342
300	4.1	190	402	872	1,554	2,571	4,070	6,104	6,708
350	4.7	278	588	1,273	2,269	3,754	5,941	8,911	9,793
400	6.2	381	808	1,750	3,120	5,162	8,170	12,255	13,467
450	8.6	505	1,070	2,319	4,132	6,837	10,821	16,231	17,836
500	11	650	1,376	2,981	5,313	8,791	13,913	20,869	22,933
600	17	1,004	2,126	4,606	8,209	13,582	21,495	32,242	35,431

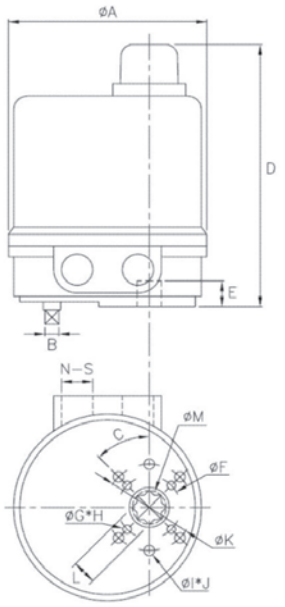
Actuator Data

OS# On–Off	OS# Modulating	Max Torque(Nm)	Run Time at 60Hz(sec)	Power Consumption (Watts)	Manual Override	Weight (Kg)
OM–1	OM–P1	35	12	10		2
OM–2	OM–P2	90	15	40	Hand–wheel	11
OM–3	OM–P3	150	22	40	Hand–wheel	11
OM–4	OM–P4	400	16	120	Hand–wheel	22
OM–5	OM–P5	500	22	120	Hand–wheel	22
OM–6	OM–P6	650	28	120	Hand–wheel	22
OM–7	OM–P7	1000	46	180	Hand–wheel	36
OM–8	OM–P8	1500	46	220	Hand–wheel	36
OM–9	OM–P9	2000	58	180	Hand–wheel	56
OM–10	OM–P10	2500	58	220	Hand–wheel	56
OM–11	OM–P11	3000	58	250	Hand–wheel	56
OM–12	OM–P12	3500	58	300	Hand–wheel	56

Actuator Dimensions (mm)

OM-1

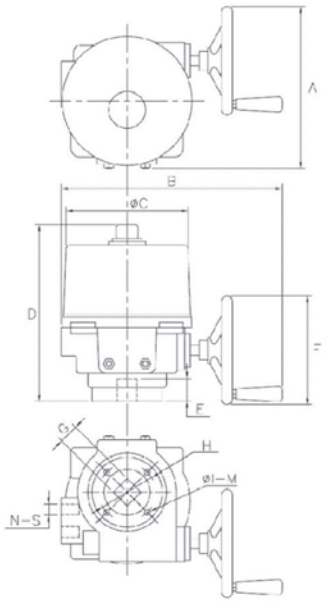
OS#	A	B	C	D	E	F	G	H	I	J	K	L max	M	N	S	Flange Type
OM-1	114	8	45°	155	15	36	m5	4	m6	6	50	14	19	2	½PS	F03/ F05



· Option: (1) L=11, M=15 (2) L=9, M=12
· With Modulating Card D=185
· No mechanical stops

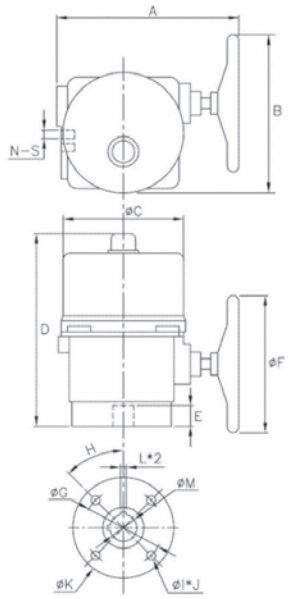
OM-2 to OM-6

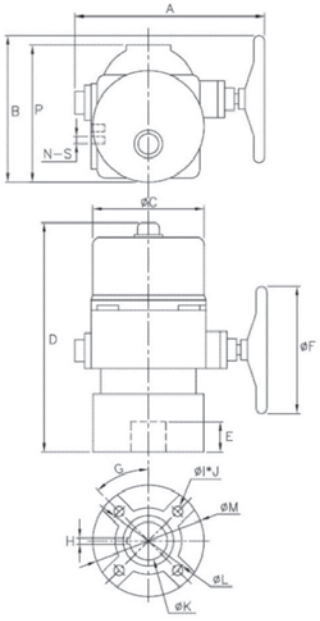
OS#	A	B	C	D	E	F	G max	H	I	M	N	S	Flange Type
OM-2&3	203	326	180	255	30	123	22	70	m8	4	2	½PS	F07
OM-4,5,6	290	394	217	317	40	194	35	102	m10	4	2	½PS	F10



OM–7 to OM–8

OS#	A	B	C	D	E	F	G	H	I	J	K	L*2	M max	N	S	Flange Type
OM–7 OM–8	385	340	217	420	60	295	140	45°	m16	4	180	10	35	2	½PS	F14



OM–9 to OM–12

OS#	A	B	C	D	E	F	G	H	I	J	K	L	M	P	N	S	Flange Type
OM–9 to OM–12	470	350	260	590	100	395	45°	12	m20	4	75	165	221	360	2	½PS	F16