

V9BF Series Butterfly Valves and NOM..H Series Actuators

Overview

Honeywell V9BF series butterfly valves and NOM-E electric actuators, with modulating control or two-position control, can be applied to water supply and HVAC systems of commercial buildings, public buildings and city pipework. The modulating actuators work with a variety of control signals, i.e. 4–20 mA, 0–10 V or 2–10 V (on-site set-up available).



FEATURES

- Simple structure for easy operation and installation
- Soft valve seat for high performance sealing, high reliability and long service life
- Two-position control or analog control
- Manual operations available
- Position self-locking function and 3D position indicator
- Heaters to prevent condensation
- IP67 protection rating
- On-site on/off/stop control available

SPECIFICATIONS

Valve Body

• Size	DN50-DN600
• Nominal pressure	PN16
• Medium	Cold/hot water
• Medium temperature	-10°C to 120°C
• Valve body	GGG40
• Valve disc	Nylon coating GGG40 or stainless steel
• Valve stem	Stainless steel
• Valve seat	EPDM
• Pipe connection	ISO7005-2
• Sealing pressure	1.76 MPa

ACTUATOR

Power	220 Vac+/-10%, 50/60 Hz
Run time	See the actuator information tables
Angle of rotation	90°±5°
Control (modulating control)	4–20 mA, DC 0–10 V or 2–10 V
Feedback (modulating control)	4–20 mA, DC 0–10 V or 2–10 V
Protection rating	IP67
Heater	See the actuator information tables
Overload protection	Built-in thermal protection (the actuator stops at 135±5°C and resets at 95±15°C)

V9BF Series Butterfly Valve

Features

Connection Design

Complies with requirement of international standard ISO 5211 for easy coupling with third party actuators.

Sealing Ring

Automatically adjusts the seal based on pressure changes to prevent leakage.

Valve Disc

Reinforced strip on disc for increased strength. Nylon coating over disc to withstand corrosion, abrasion and high temperatures.

Valve Seat

Soft valve seat to eliminate leakage points. The valve seat is fitted into a groove on the valve body to prevent separation. The groove also prevents deformation due to frictional torque.

Bearings

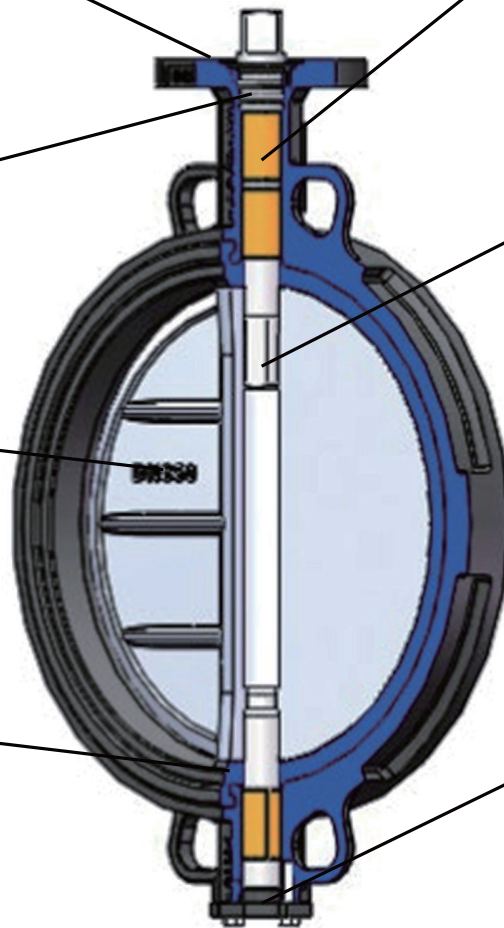
Self-lubricating bearings are installed at the top and bottom of the stem to prevent deadlock and reduce the torque.

Valve Stem

Pinless connection of valve stem and disc to prevent leakage through the pin hole. DN50-DN250 is connected by a single shaft spline while DN350-DN600 is connected by dual-shaft splines. The valve stem and disc are tightly meshed to ensure the sealing of the valve, minimize drive delay and improve control accuracy.

Thrust Bushing

The thrust bushing reduces friction caused by the weight of the valve disc and decreases the overall frictional torque on the valve. It also eliminates the risk of deadlock between the stem and the lower end of the valve body.



V9BF Series Butterfly Valves and Actuators

Model Designation

Butterfly Valve

V9	The new series				
	BF	Butterfly Valve			
		W	Connection: W — Wafer; F — Flanged ; L - Lug		
			16	Rated pressure: PN16	
				-050	Valve Size: DN50
					-2
					Valve disc material: Blank - Nylon coating ductile iron -2 - Stainless Steel

E.g.:

V9	BF	W	16	-	050
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Next-generation PN16 DN50 wafer type butterfly valve with nylon coating ductile iron disc

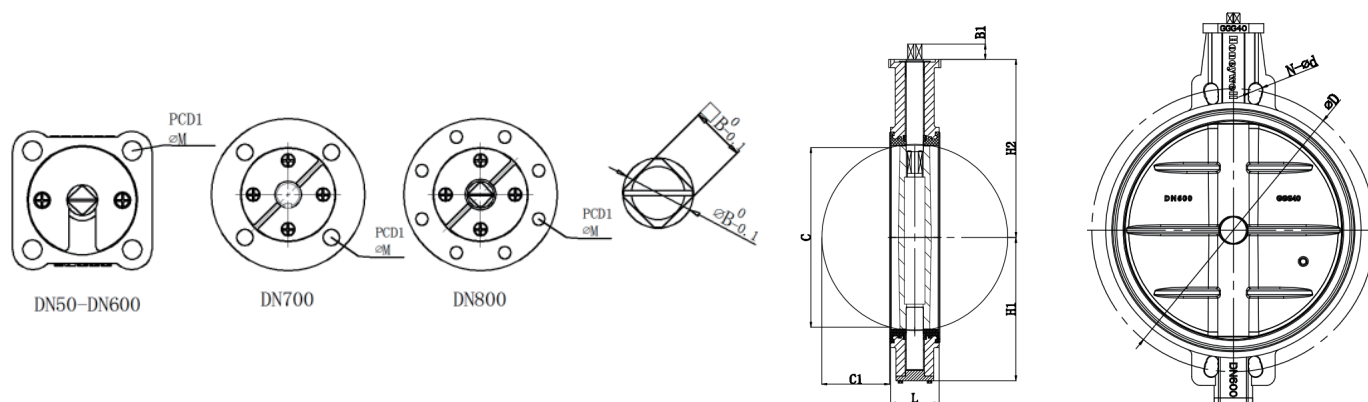
Actuator

NOM 16 H 0050 P B

						Without symbol: Standard connection; B: Different connections based on the same torque(NOMH16H2000 only)
						Control Mode: Without symbol: ON-OFFP: Modulating
						Output torque: 0050:50Nm;...5000:5000Nm
						New Generation
						Pressure: 16:PN1625:PN25
						Electric actuator for butterfly valve

V9BF Series Butterfly Valves and Actuators

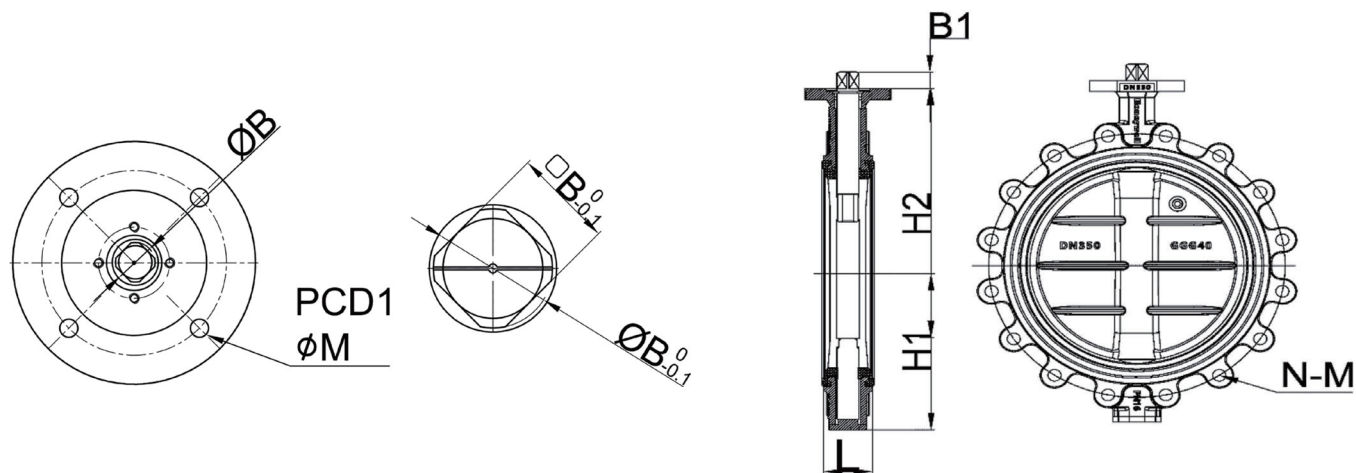
V9BFW wafer type



Model	Size	L	H1	H2	N-Ød	ØD	C	C1	ØB	B1	□ B	Mounting flange (ISO 5211)			Weight (Kg)
												Type	PCD1	ØM	
V9BFW16-050(-2)	DN50	43	65	140	4-19	125	31	5	13.2	19	11	F07	70	10	2.3
V9BFW16-065(-2)	DN65	46	78	150	4-19	145	45	9	13.2	19	11	F07	70	10	3.1
V9BFW16-080(-2)	DN80	46	89	158	4-19	160	65	17	13.2	19	11	F07	70	10	3.4
V9BFW16-100(-2)	DN100	52	106	176	4-19	180	90	26	14	19	11	F07	70	10	3.9
V9BFW16-125(-2)	DN125	56	120	190	4-19	210	113	35	18	19	14	F07	70	10	5.8
V9BFW16-150(-2)	DN150	56	133	211	4-23	240	145	49.5	18	19	14	F07	70	10	6.8
V9BFW16-200(-2)	DN200	60	164	236	4-23	295	192	71	22	24	17	F10	102	12	13.6
V9BFW16-250(-2)	DN250	68	200	267	4-28	355	242	91	28	24	22	F10	102	12	20
V9BFW16-300(-2)	DN300	78	236	305	4-28	410	290	111	28	24	22	F10	102	12	28.6
V9BFW16-350(-2)	DN350	78	267	368	4-28	470	324	128	35	29	27	F12	125	14	38
V9BFW16-400(-2)	DN400	102	325	400	4-31	525	377	144	35	29	27	F12	125	14	59
V9BFW16-450(-2)	DN450	114	345	422	4-31	585	425	163	45	38	36	F14	140	18	76
V9BFW16-500(-2)	DN500	127	376	480	4-34	650	475	182	45	38	36	F14	140	18	91
V9BFW16-600(-2)	DN600	154	452	562	4-37	770	573	219	45	48	36	F16	165	22	154
V9BFW16-700(-2)	DN700	165	530	626	4-M33	840	666	261	Φ74.7	90	2-20	F16	165	22	248
V9BFW16-800(-2)	DN800	190	591	672	4-M36	950	762	297.5	63.35	80	46	F25	254	18	354

V9BF Series Butterfly Valves and Actuators

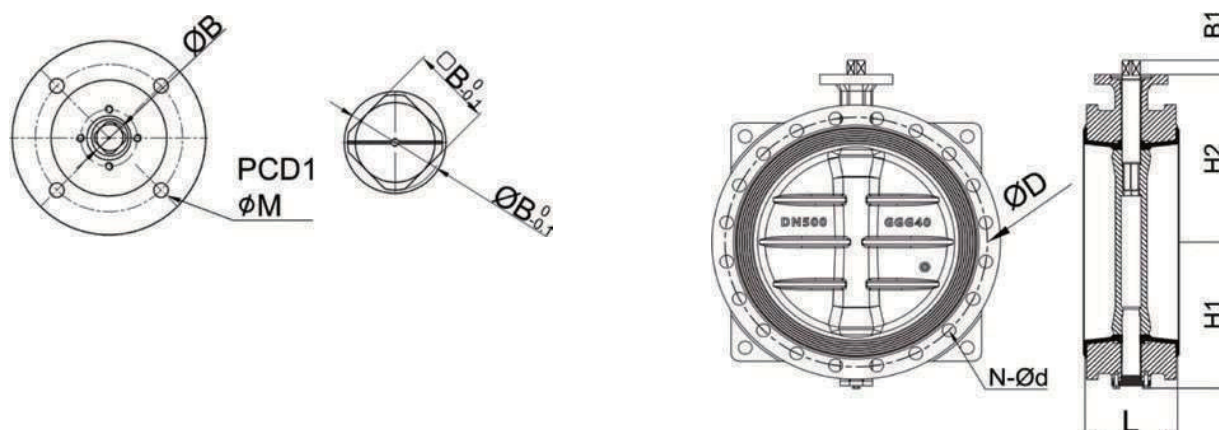
V9BFL Lug type



Model	Size	L	H1	H2	N-Ød	ØD	ØB	B1	□ B	Mounting flange (ISO 5211)			Weight (Kg)
										Type	PCD1	ØM	
V9BFL16-050(-2)	DN50	43	62	136	4-M16	125	14	19	11	F07	70	10	3.95
V9BFL16-065(-2)	DN65	46	84	145	4-M16	145	14	19	11	F07	70	10	4.5
V9BFL16-080(-2)	DN80	46	89	151	4-M16	160	14	19	11	F07	70	10	5.4
V9BFL16-100(-2)	DN100	52	106	175	4-M16	180	14	19	11	F07	70	10	7.2
V9BFL16-125(-2)	DN125	56	120	190	4-M16	210	18	19	14	F07	70	10	11
V9BFL16-150(-2)	DN150	56	133	203	4-M20	240	18	19	14	F07	70	10	12.5
V9BFL16-200(-2)	DN200	60	164	246	4-M20	295	22	24	17	F10	102	12	20
V9BFL16-250(-2)	DN250	68	200	271	4-M24	355	30	24	22	F10	102	12	29
V9BFL16-300(-2)	DN300	78	235	296	4-M24	410	30	24	22	F10	102	12	48
V9BFL16-350(-2)	DN350	78	280	368	4-M24	470	35	29	27	F12	125	14	61
V9BFL16-400(-2)	DN400	102	315	400	4-M27	525	38	29	27	F12	125	14	85
V9BFL16-450(-2)	DN450	114	345	422	4-M27	585	45	38	36	F14	140	18	130
V9BFL16-500(-2)	DN500	127	373	480	4-M30	650	45	38	36	F14	140	18	175
V9BFL16-600(-2)	DN600	154	449	508	4-M33	770	55	48	36	F16	165	22	265
V9BFL16-700(-2)	DN700	165	506	562	4-M33	840	75	90	Φ74.7 key 20	F16	165	22	328
V9BFL16-800(-2)	DN800	190	576	630	4-M36	950	75	56	46	F16	165	22	517

V9BF Series Butterfly Valves and Actuators

V9BFF flanged butterfly valve



Model	Size	L	H1	H2	ØD	N-Ød	ØB	B1	□ B	Mounting flange (ISO 5211)			Weight (Kg)
										Type	PCD1	ØM	
V9BFF16-050(-2)	DN50	108	80	110	125	4-19	14	19	11	F07	70	10	7.8
V9BFF16-065(-2)	DN65	112	89	134	145	4-19	14	19	11	F07	70	10	9.7
V9BFF16-080(-2)	DN80	114	100	131	160	8-19	14	19	11	F07	70	10	10.6
V9BFF16-100(-2)	DN100	127	114	150	180	8-19	14	19	11	F07	70	10	13.8
V9BFF16-125(-2)	DN125	140	127	170	210	8-19	18	19	14	F07	70	10	18.2
V9BFF16-150(-2)	DN150	140	143	180	240	8-23	18	19	14	F07	70	10	21.7
V9BFF16-200(-2)	DN200	152	175	210	295	12-23	24	24	17	F10	102	12	31.8
V9BFF16-250(-2)	DN250	165	203	245	355	12-28	30	24	22	F10	102	12	44.7
V9BFF16-300(-2)	DN300	178	242	276	410	12-28	30	24	22	F10	102	12	57.9
V9BFF16-350(-2)	DN350	190	269	328	470	16-28	35	29	27	F12	125	14	81.6
V9BFF16-400(-2)	DN400	216	310	376	525	16-31	38	29	27	F12	125	14	116
V9BFF16-450(-2)	DN450	222	335	407	585	20-31	45	38	36	F14	140	18	157
V9BFF16-500(-2)	DN500	229	362	433	650	20-34	45	38	36	F14	140	18	175
V9BFF16-600(-2)	DN600	267	449	508	770	20-37	55	48	36	F16	165	22	245
V9BFF16-700(-2)	DN700	292	506	562	840	24-37	75	90	Φ74.7 key 20	F16	165	22	350
V9BFF16-800(-2)	DN800	318	576	630	950	24-40	75	56	46	F25	165	22	490

V9BFW(L) Series Butterfly Valves and Actuators (Shut-Off Pressure: 1.0 Mpa)

Order Information

Size	Valve items	Actuator items (ON-OFF)	Actuator items (Modulating)	Torque (Nm)	Running time (50Hz)	Motor Consumption (VA)	Heater (W)	Hand wheel
DN50	V9BFW(L)16-050(-2)	NOM16H0050	NOM16H0050P	50	20	48	5	Hand wheel
DN65	V9BFW(L)16-065(-2)	NOM16H0050	NOM16H0050P	50	20	48	5	Hand wheel
DN80	V9BFW(L)16-080(-2)	NOM16H0050	NOM16H0050P	50	20	48	5	Hand wheel
DN100	V9BFW(L)16-100(-2)	NOM16H0050	NOM16H0050P	50	20	48	5	Hand wheel
DN125	V9BFW(L)16-125(-2)	NOM16H0080	NOM16H0080P	80	30	48	5	Hand wheel
DN150	V9BFW(L)16-150(-2)	NOM16H0200	NOM16H0200P	200	30	92	5	Hand wheel
DN200	V9BFW(L)16-200(-2)	NOM16H0200	NOM16H0200P	200	30	92	5	Hand wheel
DN250	V9BFW(L)16-250(-2)	NOM16H0400	NOM16H0400P	400	30	136	5	Hand wheel
DN300	V9BFW(L)16-300(-2)	NOM16H0400	NOM16H0400P	400	30	136	5	Hand wheel
DN350	V9BFW(L)16-350(-2)	NOM16H0800	NOM16H0800P	800	35	220	5	Hand wheel
DN400	V9BFW(L)16-400(-2)	NOM16H0800	NOM16H0800P	800	35	220	5	Hand wheel
DN450	V9BFW(L)16-450(-2)	NOM16H2000N	NOM16H2000PN	2000	40	376	5	Hand wheel
		NOM16H2000	NOM16H2000P	2000	70	286	5	Hand wheel
DN500	V9BFW(L)16-500(-2)	NOM16H2000N	NOM16H2000PN	2000	40	376	5	Hand wheel
		NOM16H2000	NOM16H2000P	2000	70	286	5	Hand wheel
DN600	V9BFW(L)16-600(-2)	NOM16H2000BN	NOM16H2000PBN	2000	40	376	5	Hand wheel
		NOM16H2000B	NOM16H2000PB	2000	70	286	5	Hand wheel
DN700	V9BFW(L)16-700(-2)	NOM16H4000	NOM16H4000P	4000	140	286	5	Hand wheel
DN800	V9BFW(L)16-800(-2)	NOM16H5000	NOM16H5000P	5000	140	286	5	Hand wheel

V9BFF Series Flanged Butterfly Valves and Actuators (Shut-Off Pressure: 1.0 Mpa) Order Information

Size	Valve items	Actuator items (ON-OFF)	Actuator items (Modulating)	Torque (Nm)	Running time (50Hz)	Motor Consumption (VA)	Heater (W)	Hand wheel
DN50	V9BFF16-050(-2)	NOM16H0050	NOM16H0050P	50	20	48	5	Hand wheel
DN65	V9BFF16-065(-2)	NOM16H0050	NOM16H0050P	50	20	48	5	Hand wheel
DN80	V9BFF16-080(-2)	NOM16H0050	NOM16H0050P	50	20	48	5	Hand wheel
DN100	V9BFF16-100(-2)	NOM16H0050	NOM16H0050P	50	20	48	5	Hand wheel
DN125	V9BFF16-125(-2)	NOM16H0080	NOM16H0080P	80	30	48	5	Hand wheel
DN150	V9BFF16-150(-2)	NOM16H0200	NOM16H0200P	200	30	92	5	Hand wheel
DN200	V9BFF16-200(-2)	NOM16H0200	NOM16H0200P	200	30	92	5	Hand wheel
DN250	V9BFF16-250(-2)	NOM16H0400	NOM16H0400P	400	30	136	5	Hand wheel
DN300	V9BFF16-300(-2)	NOM16H0400	NOM16H0400P	400	30	136	5	Hand wheel
DN350	V9BFF16-350(-2)	NOM16H0800	NOM16H0800P	800	35	220	5	Hand wheel
DN400	V9BFF16-400(-2)	NOM16H1000	NOM16H1000P	1000	54	220	5	Hand wheel
DN450	V9BFF16-450(-2)	NOM16H2000N	NOM16H2000PN	2000	40	376	5	Hand wheel
		NOM16H2000N	NOM16H2000PN	2000	70	286	5	Hand wheel
DN500	V9BFF16-500(-2)	NOM16H2000BN	NOM16H2000PBN	2000	40	376	5	Hand wheel
		NOM16H2000	NOM16H2000P	2000	70	286	5	Hand wheel
DN600	V9BFF16-600(-2)	NOM16H2000	NOM16H2000P	2000	40	376	5	Hand wheel
		NOM16H2000B	NOM16H2000PB	2000	70	286	5	Hand wheel
DN700	V9BFF16-700(-2)	NOM16H4000	NOM16H4000P	4000	140	286	5	Hand wheel
DN800	V9BFF16-800(-2)	NOM16H5000	NOM16H5000P	5000	140	286	5	Hand wheel

Kv Values for V9BF Series Butterfly Valves

Size	Kv values for different openings								
	10°	20°	30°	40°	50°	60°	70°	80°	90°
DN50	1.12	3.8	10.2	22.0	38.0	60.0	100.0	132.0	175.0
DN65	2.0	7.5	18.2	35.0	61.0	95.0	187.0	240.0	306.0
DN80	2.5	9.8	26.0	48.0	83.0	126.0	214.0	338.0	420.0
DN100	3.8	14.6	39.0	72.0	119.0	221.0	361.0	606.0	723.0
DN125	6.5	24.0	62.0	118.0	217.0	394.0	599.0	1038.0	1240.5
DN150	10.0	41.0	95.0	175.0	326.0	542.0	873.0	1260.0	1848.0
DN200	19.0	64.0	165.0	306.0	573.0	995.0	1567.0	2310.0	3117.0
DN250	28.0	101.0	245.0	450.0	836.0	1462.0	2253.0	3256.0	4540.0
DN300	34.0	129.0	312.0	615.0	1137.0	2125.0	3238.0	4991.0	6846.0
DN350	47.0	163.0	390.0	795.0	1498.0	2573.0	3980.0	6749.0	8520.0
DN400	62.0	231.0	508.0	1077.0	1973.0	3381.0	5385.0	8099.0	11458.0
DN450	65.0	256.0	621.0	1208.0	2315.0	3925.0	6331.0	9474.0	13542.0
DN500	133.0	346.0	1059.0	2693.0	4086.0	6348.0	9513.0	13109.0	18678.0
DN600	239.0	694.0	1153.0	2789.0	4966.0	7961.0	12985.0	19648.0	28017.0
DN700	245.5	774	1958.0	3792.0	7010.0	12471.0	20410.0	29480.0	43085.0
DN800	310.0	1150.0	2701.0	5310.0	9640.0	16523.0	26940.0	36900.0	53820.0

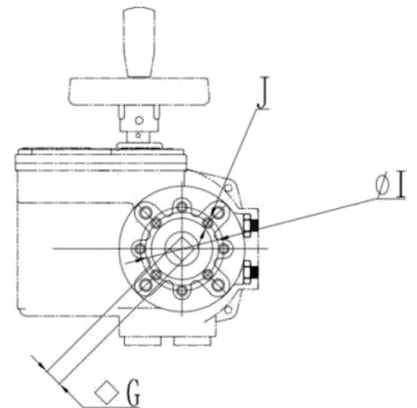
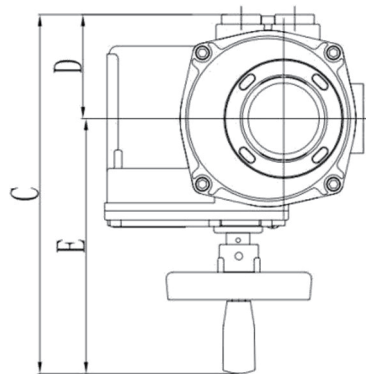
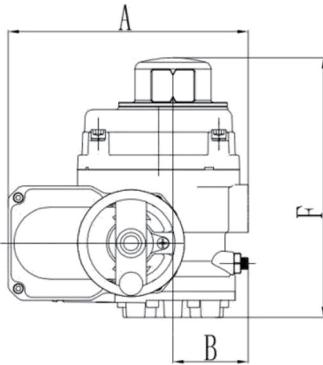
V9BF+NOM..H Series Butterfly

Valves and Actuators

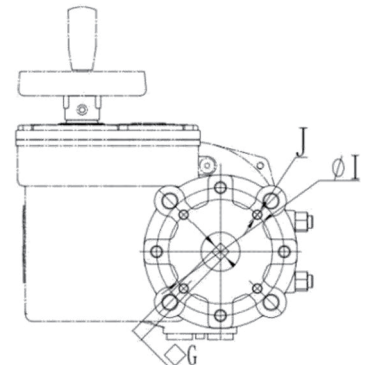
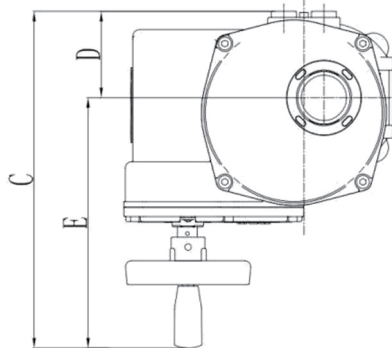
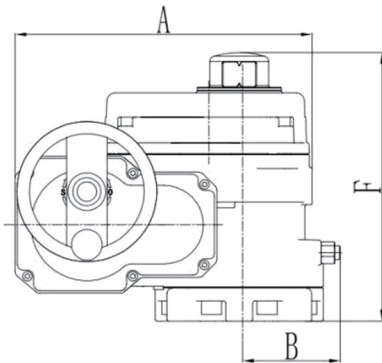
Actuator dimensions

ON-OFF Type

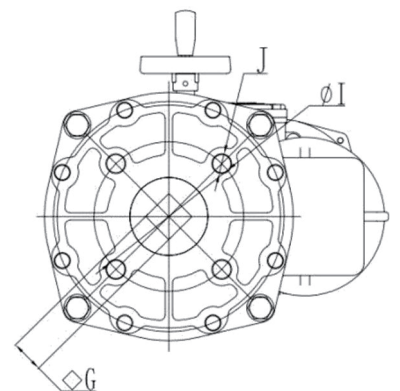
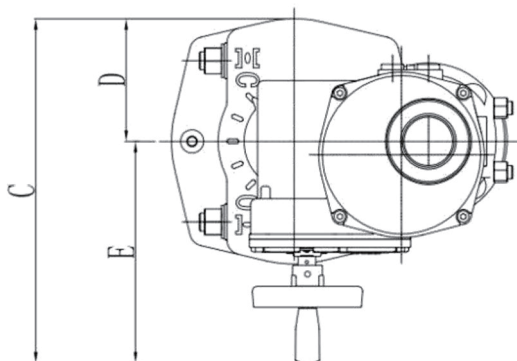
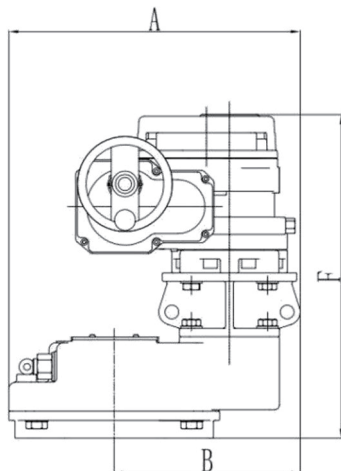
Notice: Multiple stem adaptors of NOM16H0200(P)/NOM16H0400(P) to meet the different sizes of butterfly valve.



NOM16(25)H0050/NOM16(25)H0080

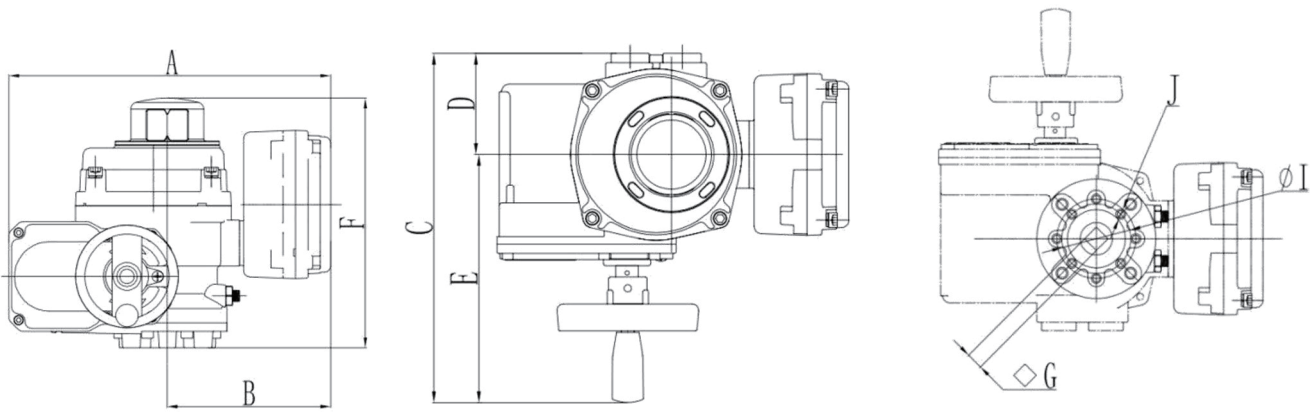


NOM16(25)H0200/NOM16(25)H0400/NOM16(25)H0600/NOM16(25)H0800/NOM16(25)H1000

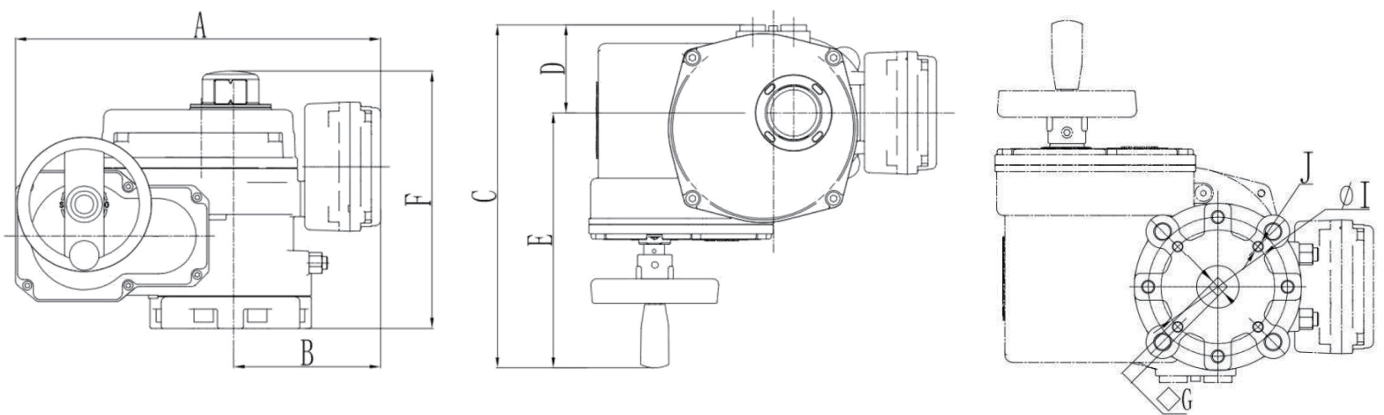


NOM16(25)H2000(B)/NOM16(25)H4000/NOM16(25)H5000

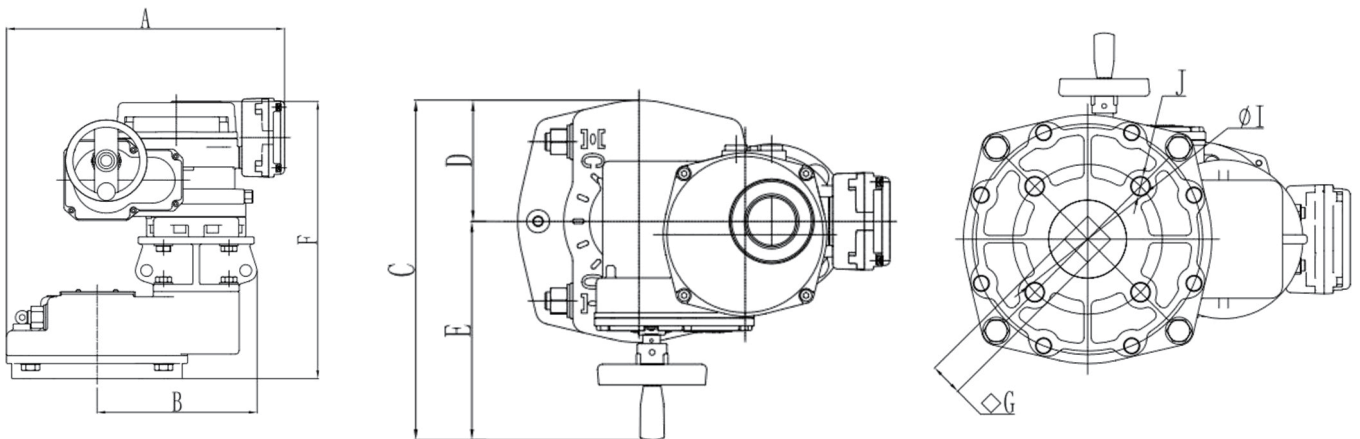
Modulating Type



NOM16(25)H0050P/NOM16(25)H0080P



NOM16(25)H0200P/NOM16(25)H0400P/NOM16(25)H0600P/NOM16(25)H0800P/NOM16(25)H1000P

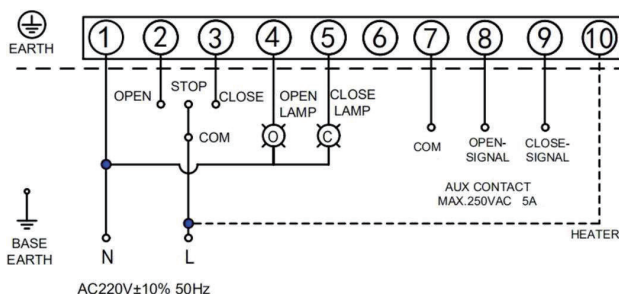


NOM16(25)H2000P(B)/NOM16(25)H4000P/NOM16(25)H5000P

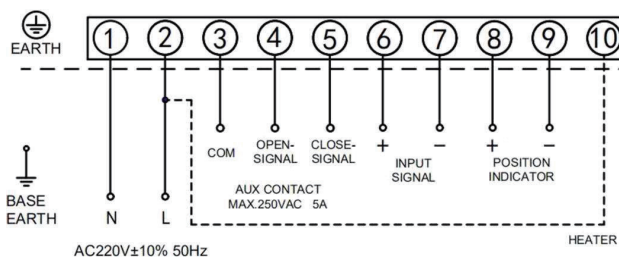
Model	Dimension(mm)									Weight (Kg)
	A	B	C	D	E	F	φi	J	G	
NOM16H0050	166	52	236	66	170	180	F05/F07	4-M6/4-M8	11*11	3.3
NOM16H0080	166	52	236	66	170	180	F05/F07	4-M6/4-M8	14*14	3.5
NOM16H0200	243	84	342	82	260	214	F07/F10	4-M8/4-M10	17*17/14*14	10
NOM16H0400	243	84	342	82	260	214	F10/F12	4-M10/4-M12	22*22/19*19	10.5
NOM16H0600	243	84	342	82	260	214	F10/F12	4-M10/4-M12	22*22	11
NOM16H0800	265	90	355	86	269	239	F12	4-M12	27*27	15.5
NOM16H1000	265	90	355	86	269	239	F12	4-M12	27*27	16
NOM16H2000N	314	128	380	103	277	266	F14	4-M16	36*36	25
NOM16H2000BN	314	128	380	103	277	266	F16	4-M20	36*36	25
NOM16H2000	380	241	406	137	269	420	F14	4-M16	36*36	52
NOM16H2000B	380	241	406	137	269	420	F16	4-M20	36*36	52
NOM16H4000	380	241	406	137	269	420	F16	4-M20	74.7 K-20	55
NOM16H5000	380	241	406	137	269	420	F16	4-M20	46*46	57
NOM16H0050P	234	121	236	66	170	180	F05/F07	4-M6/4-M8	11*11	4.5
NOM16H0080P	234	121	236	66	170	180	F05/F07	4-M6/4-M8	14*14	4.7
NOM16H0200P	303	132	342	82	260	214	F07/F10	4-M8/4-M10	17*17/14*14	11.2
NOM16H0400P	303	132	342	82	260	214	F10/F12	4-M10/4-M12	22*22/19*19	11.7
NOM16H0600P	303	132	342	82	260	214	F10/F12	4-M10/4-M12	22*22	12.2
NOM16H0800P	343	143	355	86	269	239	F12	4-M12	27*27	16.7
NOM16H1000P	343	143	355	86	269	239	F12	4-M12	27*27	17.2
NOM16H2000PN	383	151	380	103	277	266	F14	4-M16	36*36	26
NOM16H2000PBN	383	151	380	103	277	266	F16	4-M20	36*36	26
NOM16H2000P	420	241	406	137	269	425	F14	4-M16	36*36	53.2
NOM16H2000PB	420	241	406	137	269	425	F16	4-M20	36*36	53.2
NOM16H4000P	420	241	406	137	269	425	F16	4-M20	74.7 K-20	56.2
NOM16H5000P	420	241	406	137	137	425	F16/F25	4-M20	46*46	58.2

Wiring Drawing

ON-OFF Type



Modulating Type



For more information

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