GRAT®
Simple & Reliable

Ventilation Butterfly Valve

Product Introduction:

Ventilation butterfly valves are specially designed for gas regulation, widely used in ventilation, dust removal, smoke exhaust and air handling systems. Featuring compact structure, low flow resistance and large flow area, they enable efficient gas cut-off and flow adjustment. Available in metal and soft seal types with stable sealing, flexible operation and precise control. Made of carbon steel, stainless steel and other materials, they feature high temperature resistance and wear resistance, suitable for normal and high temperature gas conditions, and are widely used in chemical, power, metallurgy, building ventilation and environmental protection industries to ensure stable gas conveying.

Product Features:

- **Lightweight & easy installation:** Steel plate welded body and disc, simple structure, low installation difficulty and labor cost.
- **High temperature resistance & anti-jamming:** Reserved expansion gap prevents jamming caused by thermal expansion and contraction.
- **Stable & durable:** No vulnerable internal connecting rods or bolts, high reliability, long service life and low maintenance.

Flanged
Electric Ventilation Butterfly Valve

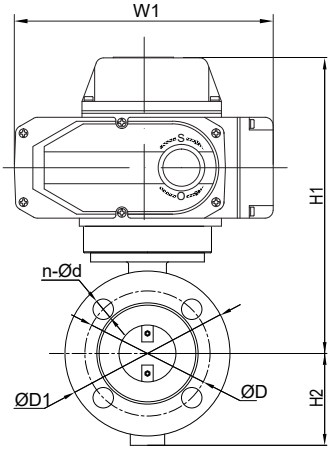
Product Description

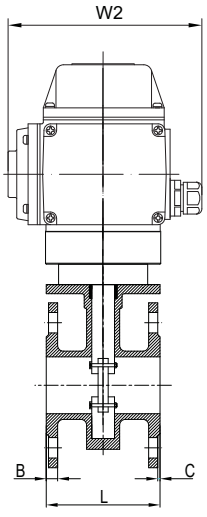
Flanged Electric Ventilation Butterfly Valve: Reliable flange connection, precise electric drive. For ventilation, dust removal and waste gas treatment, low flow resistance, flexible opening/closing, suitable for large-diameter air duct control in metallurgy, building materials, environmental protection.

Main Performance Specifications

Nominal Diameter: DN50~DN2000
Nominal Pressure: 0.1MPa~0.6MPa
Medium Temperature: 0~450°C
Protection Grade: IP67
Applicable Media: Dust-laden flue gas, air, gas
Manufacturing Standard: JB/T 8692-2013
Face-to-Face Standard: GB/T 12221-2005
Inspection Standard: GB/T13927-2022, API 598
Flange Standard: GB/T 9124.1-2019, GB/T 9124.2-2019, ASME B16.50, ASME B16.47

Installation Dimension Drawing





Size (mm)	D1	D	L	B	C	n-Φd	H1	H2	W1	W2
50	165	125	100	8	1	4-Φ18	371	83	196	145
65	185	145	100	8	1	4-Φ18	391	93	196	145
80	200	160	100	10	1	8-Φ18	411	100	196	145
100	220	180	120	10	1	8-Φ18	446	110	196	145
125	250	210	120	10	1.5	8-Φ18	526	125	196	145
150	285	240	120	10	1.5	8-Φ22	561	143	196	145
200	340	295	140	12	1.5	8-Φ22	626	170	196	145
250	395	350	140	12	1.5	12-Φ22	715	198	196	145
300	445	400	170	15	1.5	12-Φ22	766	223	196	145
350	505	460	170	15	2	12-Φ22	848	253	255	182
400	565	515	190	15	2	16-Φ26	908	283	255	182
450	615	565	190	18	2	16-Φ26	948	308	255	182
500	670	620	190	18	2	20-Φ26	998	335	255	182
600	780	725	210	20	2	20-Φ30	1098	390	255	182
700	895	840	210	20	2	24-Φ30	1285	448	354	273
800	1015	950	250	20	2	24-Φ33	1405	508	354	273
900	1115	1050	250	25	2	24-Φ33	1520	558	354	273
1000	1230	1160	250	25	2	28-Φ36	1615	615	354	273
1200	1455	1380	250	25	3	32-Φ39	1840	728	354	273
1300	1565	1485	300	25	3	36-Φ39	1950	783	354	273
1400	1675	1590	300	25	3	36-Φ42	2068	838	354	273
1500	1795	1705	300	27	3	40-Φ42	2180	898	354	273
1600	1915	1820	300	28	3	40-Φ48	2300	958	354	273
1800	2115	2020	300	28	3	44-Φ48	2505	1058	354	273
2000	2325	2230	300	28	3	48-Φ48	2765	1163	354	273

Flanged
Pneumatic Ventilation Butterfly Valve

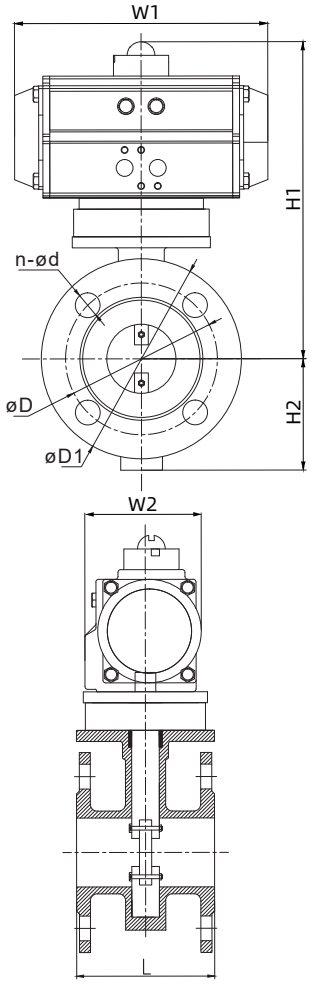
Product Description

Firm leakproof flange connection and fast pneumatic operation. Designed for ventilation, dust removal and waste gas treatment systems, it features low flow resistance and sensitive regulation, ideal for precise control of large-caliber air ducts in metallurgy, building materials and environmental protection industries.

Main Performance Specifications

Nominal Diameter: DN50~DN2000
Nominal Pressure: 0.1MPa~0.6MPa
Medium Temperature: 0~450°C
Protection Grade: Ip66
Applicable Media: Dust-laden flue gas, air, gas
Manufacturing Standard: JB/T 8692-2013
Face-to-Face Standard: GB/T 12221-2005
Inspection Standard: GB/T13927-2022, API 598
Flange Standard: GB/T 9124.1-2019, GB/T 9124.2-2019, ASME B16.50, ASME B16.47

Installation Dimension Drawing



Size (mm)	L	D1	D	n-Φd	H2	Double-acting			Single-acting		
						H1	W1	W2	H1	W1	W2
50	100	165	125	4-Φ18	70	217	168	83	229	184	95
65	100	185	145	4-Φ18	80	240	184	95	257	262	109
80	100	200	160	8-Φ18	95	262	204	103	286	268	122
100	120	220	180	8-Φ18	105	290	262	109	348	301	142
125	120	250	210	8-Φ18	120	305	262	109	363	301	142
150	120	285	240	8-Φ22	132	334	268	122	393	390	152
200	140	340	295	8-Φ22	160	490	301	142	532	458	174
250	140	395	350	12-Φ22	187	537	390	152	595	525	206
300	170	445	400	12-Φ22	220	588	458	174	646	532	226
350	170	505	460	12-Φ22	245	711	525	206	771	602	260
400	190	565	515	16-Φ26	270	738	525	206	798	602	260

Note: For pneumatic valves, the matching actuator model and relevant dimensions may vary depending on service medium, valve torque and control method.

Flanged
Explosion-Proof Electric Ventilation Butterfly Valve

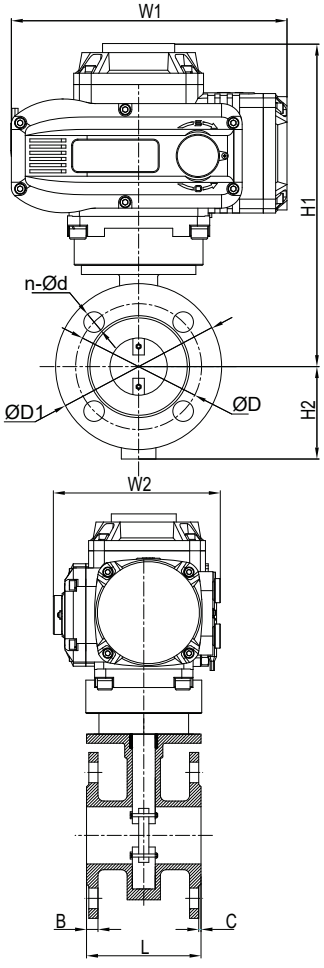
Product Description

Stable vibration-resistant flange connection, explosion-proof actuator for flammable/explosive environments, precise quick electric regulation, low-resistance smooth flow. Designed for ventilation, dust removal and waste gas treatment, a safe reliable choice for air duct control in petrochemical, metallurgical and other high-risk fields.

Main Performance Specifications

Nominal Diameter: DN50~DN2000
Nominal Pressure: 0.1MPa~0.6MPa
Medium Temperature: 0~450°C
Protection Grade: Ip67
Applicable Media: Dust-laden flue gas, air, gas
Manufacturing Standard: JB/T 8692-2013
Face-to-Face Standard: GB/T 12221-2005
Inspection Standard: GB/T13927-2022, API 598
Flange Standard: GB/T 9124.1-2019, GB/T 9124.2-2019, ASME B16.50, ASME B16.47

Installation Dimension Drawing



Size (mm)	D1	D	L	B	C	n-Φd	H1	H2	W1	W2
50	165	125	100	8	1	4-Φ18	371	83	196	145
65	185	145	100	8	1	4-Φ18	391	93	196	145
80	200	160	100	10	1	8-Φ18	411	100	196	145
100	220	180	120	10	1	8-Φ18	446	110	196	145
125	250	210	120	10	1.5	8-Φ18	526	125	196	145
150	285	240	120	10	1.5	8-Φ22	561	143	196	145
200	340	295	140	12	1.5	8-Φ22	626	170	196	145
250	395	350	140	12	1.5	12-Φ22	715	198	196	145
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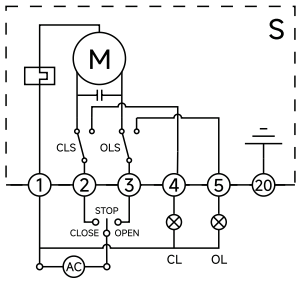
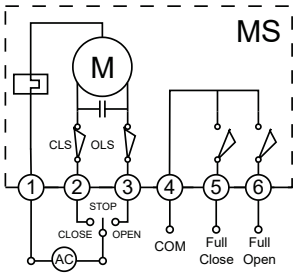
900	1115	1050	250	25	2	24-Φ33	1520	558	354	273
1000	1230	1160	250	25	2	28-Φ36	1615	615	354	273
1200	1455	1380	250	25	3	32-Φ39	1840	728	354	273
1300	1565	1485	300	25	3	36-Φ39	1950	783	354	273
1400	1675	1590	300	25	3	36-Φ42	2068	838	354	273
1500	1795	1705	300	27	3	40-Φ42	2180	898	354	273
1600	1915	1820	300	28	3	40-Φ48	2300	958	354	273
1800	2115	2020	300	28	3	44-Φ48	2505	1058	354	273
2000	2325	2230	300	28	3	48-Φ48	2765	1163	354	273

Circuit Diagram



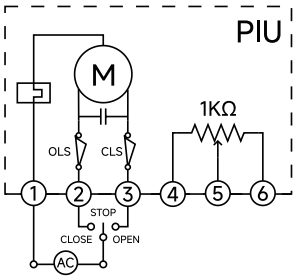
S

Switching Action Mode：
Switching operations (open/close) are achieved via AC switching signals, and a set of active position signals indicating fully open/fully closed status are output.



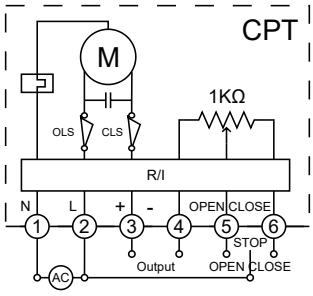
MS

Switching Action Mode: Outputs passive contact signals.
Structure：Equipped with two intermediate position switches.



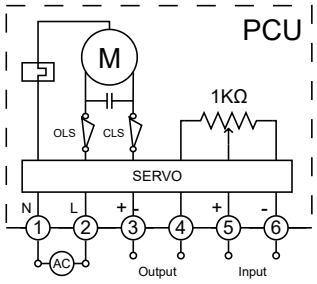
PIU

Switching Action Mode: Outputs 0~1000Ω feedback signal.
Structure: Equipped with 500Ω or 1kΩ potentiometer.



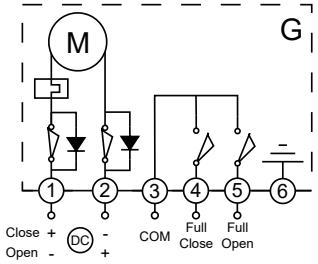
PCU

Regulating Action Mode:Accepts 4~20mA control signal input and outputs 4~20mA valve position feedback signal.
Structure: Integrated with 1kΩ potentiometer and control module (servo amplifier).



CPT

Switching Action Mode:Outputs 4~20mA valve position feedback signal.
Structure: Equipped with 1kΩ potentiometer and R/I converter.

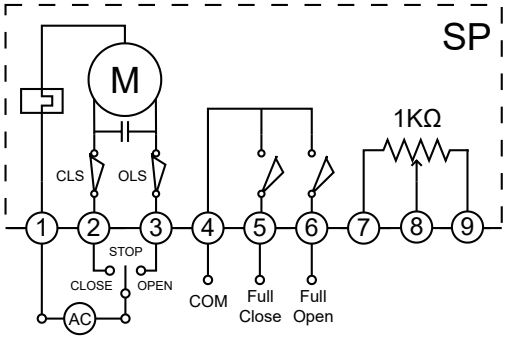


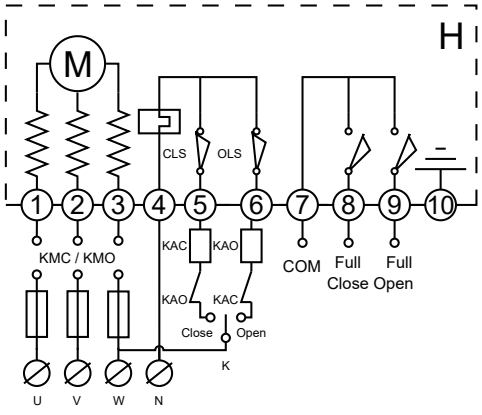
G

DC switching signals are output from the circuit via an external DC power supply to control the opening/closing program, and a set of passive contact signals corresponding to fully open/fully closed positions are provided.

SP

Switching Action Mode: Controls valve opening angle via switching circuit, corresponding to potentiometer resistance value, while enabling intermediate position control function.
Structure: Integrated with potentiometer and intermediate position switch.



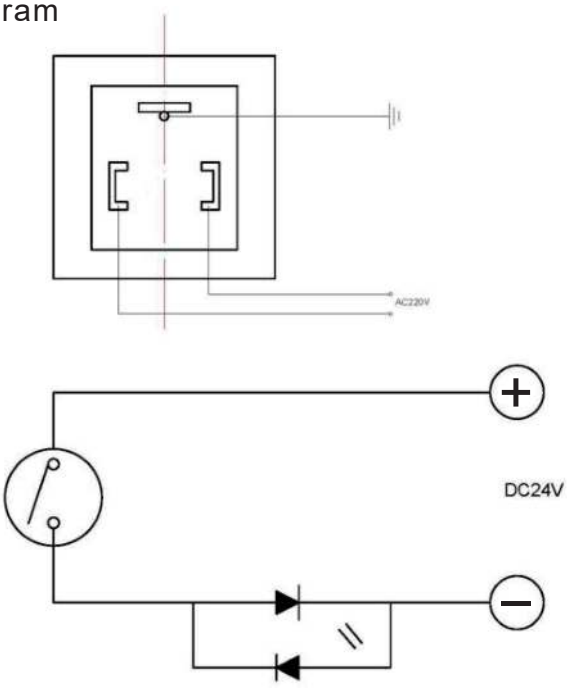


H

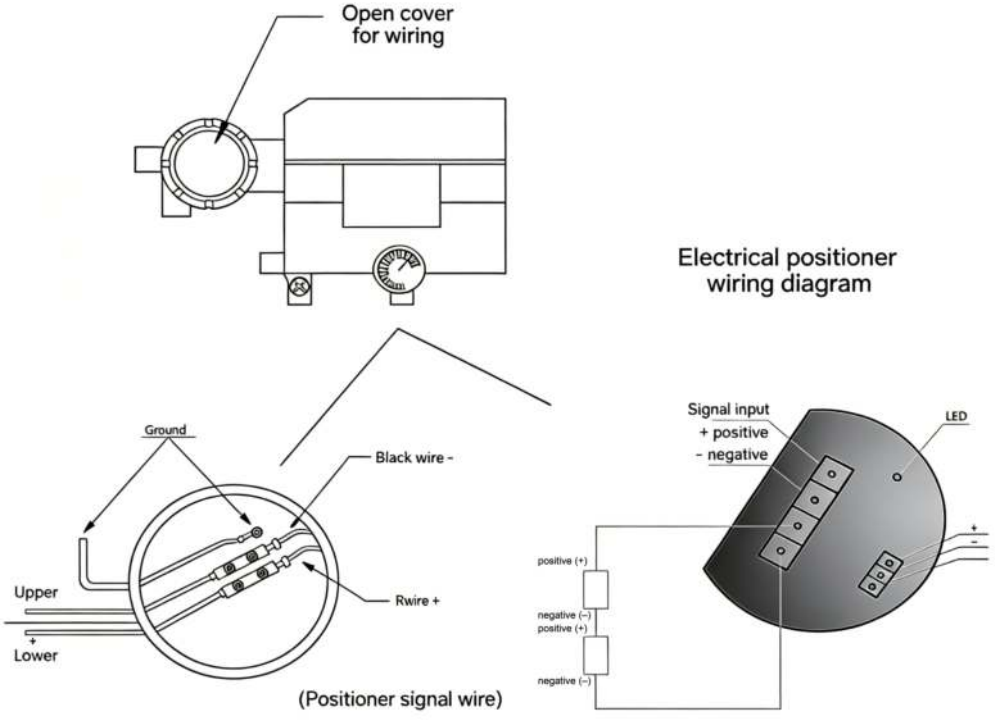
Three-phase AC switching signals are output through an external three-phase power phase-reversing circuit to control opening/closing operations, accompanied by a set of passive contact signals for fully open/fully closed position indication.

Pneumatic Valve Circuit Diagram

On-off Type Wiring Diagram



Regulating Type Wiring Diagram



Vision: Build more robust industrial automatic control systems
Mission: Make industrial automation technologies simpler and more reliable
Core Values: Simplify complexity, Continuous Innovation, Win-Win Collaboration

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