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Electric butterfly valve

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Datasheet

Electric wafer butterfly valve(HL type)

The integrated structure wafer center line butterfly valve can be used with the HL type electric actuator with input (4-20mA DC, 0-10VDC or 1-5VDC) signal or single-phase power supply. It has the characteristics of small size, large flow capacity, high adjustment accuracy, good sealing and light weight. It is widely used in industrial automation control systems in food, environmental protection, light industry, petroleum, papermaking, chemical industry, teaching and scientific research equipment, electric power and other industries.

Applications

- Food
- Environmental protection
- Light industry
- Petroleum
- Papermaking
- Chemical industry
- Teaching and scientific research equipment
- Electric power



Features

- Small size
- Large flow capacity
- High adjustment accuracy
- Good sealing
- Light weight

Electric wafer butterfly valve

Principle

The electric wafer butterfly valve operates based on an electric actuator. When an electrical signal is received, the actuator converts electrical energy into mechanical motion. This mechanical motion drives the rotation of the valve shaft. The valve shaft is connected to a circular disc, which is the closure member of

the butterfly valve. As the valve shaft rotates, the disc rotates within the valve body. When the disc is perpendicular to the flow direction of the pipeline, the valve is in a closed state, blocking the fluid flow. When the disc rotates to be parallel to the flow direction, the valve is fully open, allowing fluid to flow through with minimal resistance. This way, the electric wafer butterfly valve can precisely control the flow rate and cut off of the fluid in the pipeline.

Parameters	
Nominal diameter	DN50~DN800
Nominal Pressure	PN1.0,1.6MPa
Suitable Temperature	-20℃~150℃
Suitable medium	water,sea water,food,natural gas,alcohols,salts,acids,alkalis,oil,steam,air,etc.

SIZE		Item	OD1		L	H2	H1	n-O		SIZE	
mm	inch		1.0MPa	1.6MPa				1.0MPa	1.6MPa	mm	inch
DN50	2	HL-05	125	145	43	313	76	4-018		DN50	2
DN65	2 1/2		145	160	46	326	89	4-018		DN65	2 1/2
DN80	3"		160	180	46	332	94	4-018	8-018	DN80	3"
DN100	4"	HL-10	180	210	52	374	114	8-018		DN100	4"
DN125	5"		210	240	56	387	127	8-018		DN125	5"
DN150	6"	HL-20	240	295	56	433	140	8-023		DN150	6"
DN200	8"		295	350	60	468	176	8-023	12-023	DN200	8"
DN250	10"	HL-50	350	400	68	518	207	12-023	12-025	DN250	10"
DN300	12"	HL-100	400	460	78	594	240	12-023	12-025	DN300	12"
DN350	14"		460	515	78	625	273	16-023	16-025	DN350	14"
DN400	16"	HL-200	515	565	102	657	322	16-025	16-030	DN400	16"
DN450	18"		565	620	114	679	340	20-025	20-030	DN450	18"
DN500	20"		620	680	127	737	380	20-028	20-034	DN500	20"
DN600	24"	HL-400	725	770	154	881	467	20-031	20-037	DN600	24"

Datasheet**Electric flanged soft seal butterfly valve**

Electric flanged soft seal butterfly valve is suitable for temperature $\leq 120^{\circ}\text{C}$, nominal pressure $\leq 1.6\text{MPa}$ of food industry, pharmaceutical, chemical industry, oil, electricity power, textile, paper making and other liquid/gas regulation.

Applications

- Food industry
- Pharmaceutical
- Chemical industry
- Oil
- Electricity power
- Textile
- Paper making
- Liquid/gas regulation industry

**Features**

- Design reasonable, unique structure, lightweight, open and close quickly
- Operation torque small, easy operation
- Mounted in any position, and easy maintenance
- The seal parts can be replaced, zero leakage of reliable seal performance
- The seal material is anti-aging, corrosion resistance with long life

Electric flanged soft seal butterfly valve

Principle

The electric flanged soft - seal butterfly valve functions as follows. An electric actuator is at the heart of its operation. When it receives an electrical command signal, the actuator initiates action, converting

electrical energy into mechanical power. This mechanical power is then transferred to the valve stem. The valve stem is attached to a disc made of a soft - sealing material, which is the key component for controlling the flow. As the valve stem rotates due to the action of the actuator, the disc rotates accordingly within the valve body. In the closed position, the disc presses firmly against the valve seat, creating a tight seal due to the flexibility of the soft - sealing material, thus preventing any fluid from flowing through the pipeline. When the valve is to be opened, the actuator drives the valve stem to rotate the disc until it is parallel to the direction of fluid flow. This allows the fluid to pass through the valve with relatively low resistance, enabling smooth control of the fluid flow rate within the pipeline system.

Parameters			
Nominal diameter DN(mm)		DN50~DN500	
Nominal pressure		PN1.0MPa	PN1.6MPa
Nomina pressure	Strength test	PN1.5MPa	PN2.4MPa
	Seal test	PN1.1MPa	PN1.76MPa
Main Parts	Valve Body	Ductile Iron、WCB、Stainless Steel	
	Valve Disc	Ductile iron,cast iron,WCB and special materials	
	Valve Stem	Carbon steel,Stainless Steel	
	O-ring	Rubber,PTFE,EPDM	
	Packing	PTFE、flexible graphite	
Applicable Operating Condition	Applicable medium	Water、air、oils,etc.	
	Suitable temperature	≤120℃	

SIZE		Item	OD1		L
mm	inch		1.0MPa	1.6MPa	
DN50	2	HL-05	125	108	
DN65	2 1/2		145	112	
DN80	3		160	114	
DN100	4°	HL-10	180	127	
DN125	5°		210	140	
DN150	6°	HL-20	240	140	
DN200	8		295	152	
DN250	10°	HL-50	350	355	165
DN300	12	HL-100	400	410	178
DN350	14°		460	470	190

DN400	16°		515	525	216
DN450	18°	HL-200	565	585	222
DN500	20°		620	650	229

Datasheet**Electric triple offset metal-seal butterfly valve**

Flexibility with precision U-ring and triple offset metal hard sealing multi-level structure, which is widely used in medium temperature $\leq 425^{\circ}\text{C}$ of metallurgical, power, petrochemical, and municipal construction, drainage and industrial pipe, for regulation traffic and fluid truncated. The valve adopt triple offset structure. The sealing face of the valve seat and disc s made of the steel and stainless steel with good corrosion resistance, long service life. With the two-way sealing function, all the products up to the valve pressure test standard of national GB/T 13927-92.

Applications

- Metallurgical
- Power
- Petrochemical
- Municipal construction
- Drainage and industrial pipe

**Features**

- Excellent sealing performance, corrosion resistance, and long service life.
- Wear-resistant, long service life.
- Not restricted by media flow and spatial position, can be installed in any direction.

Electric triple offset metal-seal butterfly valve**Principle**

The electric triple - offset metal - seal butterfly valve operates on a sophisticated principle. It is powered by an electric actuator. When an electrical signal is sent, the actuator converts electrical energy into mechanical movement. This mechanical force is transmitted to the valve shaft. The valve features a

uniquely designed disc and a metal seat. The three offsets in the valve design - offset between the axis of the disc and the axis of the valve body, offset of the disc's rotation axis from the centerline of the pipeline, and offset of the seat's cone angle - play a crucial role. As the valve shaft rotates under the action of the actuator, the disc moves. When closing, due to these offsets, the disc gradually presses against the metal seat. The metal - to - metal contact creates a tight seal, effectively blocking the flow of media in the pipeline. When opening, the actuator reverses the rotation of the shaft, moving the disc away from the seat, allowing the media to flow through the valve with minimal resistance, thus precisely controlling the flow of various fluids in industrial applications.

Parameters				
Nominal diameter DN(mm)		DN50~DN600		
Nominal pressure		PN1.0MPa	PN1.6MPa	
Nominal pressure	Strength test	PN1.5MPa	PN2.4MPa	
	Seal test	PN1.1MPa	PN1.76MPa	
Materials/code name		C	P	R
Main Parts	Valve Body	WCB	304	316
	Valve Disc			
	Valve Stem	Carbon steel, Stainless Steel		
	O-ring	PTFE、stainless steel		
	Packing	PTFE、flexible graphite		
Applicable Operating Condition	Applicable medium	Water, steam, oils	nitrose	acetic acid
	Suitable temperature	Carbon steel: -29℃~425℃ Stainless steel: -40~600℃		

SIZE		Item	OD1		OD2		H2	H1
mm	inch		1.0MPa	1.6MPa	1.0MPa	1.6MPa		
50	2	HL-10	125		102		323	90
65	2.5°		145		122		367	110
80	3	HL-20	160		133		413	115
100	4°		180		158		423	130
125	5°		210		185		473	150
150	6°	HL-50	240		216		511	165
200	8°		295		272		597	210

250	10"	HL-100	350	355	320	320	627	245
300	12"	HL-200	400	410	372	372	677	280
350	14"		460	470	420	430	742	315
400	16"	HL-400	515	525	480	480	819	345
450	18"		565	585	535	545	884	380
500	20"	HL-600	620	650	585	610	909	415
600	24"		725	770	685	720	924	460

Datasheet**Electric flanged triple offset metal seal butterfly valve**

The electric flange metal seal butterfly valve adopts J-type elastic sealing ring and triple offset metal seal structure. It is widely used in pipelines in the power, petrochemical, and drainage industries with medium temperature $\leq 425^{\circ}\text{C}$ to regulate flow.

Applications

- Pipelines in the power
- Petrochemical
- Drainage industry

**Features**

- With more and more tightly sealing function
- Excellent sealing performance
- Corrosion resistance
- Long life and other characteristics

Electric flanged triple offset metal seal butterfly valve

Principle

The electric flanged triple - offset metal seal butterfly valve operates through an electric actuator. When

an electrical signal is received, the actuator transforms electrical energy into mechanical torque and transfers it to the valve stem. Thanks to the triple - offset design, which involves offsetting the valve shaft from the center of the disc, from the centerline of the pipeline, and having an offset angle on the conical sealing surfaces of the disc and seat, during opening, the stem rotates the disc, leveraging the cam - like action created by the offsets to lift the disc away from the seat smoothly, allowing fluid to flow through the valve with minimal resistance as the disc aligns parallel to the fluid flow. When closing, the actuator rotates the stem in the opposite direction. The disc gradually makes contact with the seat, starting from a single point and then conforming precisely to the seat surface, achieving a tight metal - to - metal seal that effectively blocks the fluid flow, even under high - pressure and high - temperature conditions. The flanged connections ensure a secure and leak - proof installation to the pipeline.

Parameters			
Nominal diameter DN(mm)		DN40~DN600	
Nominal pressure		0-1.6MPa	
Nominal pressure	Strength test	PN1.5MPa	PN1.6MPa
	Seal test	PN1.1MPa	PN1.76MPa
Main Parts	Valve Body	Ductile Iron、WCB、Stainless Steel	
	Valve Disc	Ductile iron,cast iron,WCB,Stainless steel and special materials	
	Valve Stem	Carbon steel,Stainless Steel	
	O-ring	Rubber,PTFE,EPDM	
	Packing	PTFE、flexible graphite	
Applicable Operating Condition	Applicable medium	Water、steam、oils、nitrose、acetic acid,etc.	
	Suitable temperature	Carbon steel:-29℃~425℃ Stainless steel:-40℃~650℃	

SIZE		Item	OD1		OD2		H2	H1	L	n-O	
mm	inch		1.0 MPa	1.6 MPa	1.0 MPa	1.6 MPa				1.0MPa	1.6MPa
40	13/4	HL-10	110	150	323	90	108	4-18			
50	2"		125	165	323	90	108	4-18			
65	2.5"		145	185	367	105	112	4-18			
80	3"	HL-20	160	200	413	120	114	4-18	8-18		
100	4"		180	220	423	130	127	8-18			
125	5"		210	250	473	164	140	8-18			
150	6"	HL-50	240	285	511	175	140	8-22			

200	8"		295		340		597	200	152	8-22	12-22
250	10	HL-100	350	355	395	405	627	243	165	12-22	12-26
300	12	HL-200	400	410	445	460	677	250	178	12-22	12-26
350	14		460	470	505	520	742	280	190	16-22	16-26
400	16	HL-400	515	525	565	580	819	305	216	16-26	16-30
450	18		565	585	615	640	884	350	222	20-26	20-30
500	20°	HL-600	620	650	670	715	909	380	229	20-26	20-33

Datasheet**Electric sanitary butterfly valve with tri clamp**

Sanitary butterfly valve are used in applications with high sanitary requirements, such as food, beverage, pharmaceutical, dairy, beer and chemicals.

Applications

- Food
- Beverage
- Pharmaceutical
- Dairy
- Beer and chemicals

**Features**

- Valve body and valve bore touched with medium are 304, 316 or 316L
- Removable valve body, simple structure, easy maintenance
- Design beautiful, surface smooth, without burrs
- Good quality and meet the requirements of surface accuracy
- In compliance with 3A, DIN, SMS, BS standard

Electric sanitary butterfly valve with tri clamp

Principle

The electric sanitary butterfly valve with tri - clamp operates in a straightforward yet effective manner. It

is driven by an electric actuator. When an electrical signal is received, the actuator activates and transforms electrical energy into mechanical motion. This mechanical movement is then transferred to the valve shaft. The valve shaft is connected to a disc, which is the key element for controlling the flow. In a sanitary environment, the tri - clamp connection ensures a quick, easy, and hygienic attachment to the pipeline system. When the valve is to be closed, the electric actuator rotates the valve shaft, causing the disc to turn until it is perpendicular to the flow path. This blocks the fluid flow, as the disc creates a barrier within the valve body.

Conversely, when the valve needs to be opened, the actuator rotates the shaft in the opposite direction. The disc then moves to a position parallel to the flow, enabling the fluid to pass through the valve with minimal disruption. This design allows for precise control of fluid flow in sanitary applications, such as in the food, beverage, and pharmaceutical industries, where maintaining a clean and contamination - free environment is of utmost importance.

Parameters	
Nominal diameter DN(mm)	DN15~DN150
Nominal pressure	1.0MPa
Suitable temperature	-5℃~95℃
Applicable medium	Dairy、 beer、 food、 beverage、 pharmacy、 biotechnology etc
Body material	304、 316、 316L
Spool material	304、 316、 316L
Seal material	Silicon rubber、 EPDM、 FPM

SIZE	Item	D1	D	H	H1
mm					
019	HL-05	16.5	50.5	173	38.5
025		22	50.5	173	38.5
032		29	50.5	173	38.5
038		35	50.5	175	39.5
045		40	64	178	44
051		48	64	181	47
063		59	77.5	188	55.5
076		72	91	194	61.5
089		85	106	208	69.5
0102		HL-10	99	119	225
Ø133	125		145	240	93
0159	151		183	256	107

Datasheet**PVC electric butterfly valve**

PVC electric butterfly valve is light in weight and corrosion-resistant. It is widely used in general water and raw water pipeline systems, pH and chemical solution systems and other industries. Its quality is recognized by the majority of users.

Applications

- General water
- Raw water piping systems
- PH and chemica solution system

**Features**

- Suitable temperature range:-40°C~+95°C
- With excellent strength and toughness
- With excellent chemical resistance capabilities
- Retardant properties is the self-extinguishing
- Low thermal conductivity,about 1/200 of the steel
- The content of heavy ion in the medium up to the ultrapure water standards
- Health indicators in line with national health standards
- Clean and smooth of the tube wall,which can generate a smaller friction and adhesion when transferring fluid
- Lightweight,the equivalent of 1/5 of steel,1/6 of brass

PVC electric butterfly valve

- Easy to install
- Excellent anti-aging and UV resistance, long service life

Principle

Based on the Coriolis principle, the measuring tubes are periodically vibrated at a fixed frequency under the action of an alternating current using magnets and coil assemblies mounted on the measuring tubes and coil assemblies.

When the fluid medium of an industrial process flows through the measuring tubes, the Coriolis force effect, the two measuring tubes will vibrate in torsion. In addition, the vibration frequency of the tubes is determined by the total mass of the tubes and the fluid. Therefore, when the fluid density changes. Therefore, when the density of the fluid changes, the vibration frequency will also change accordingly, so that the density value of the fluid in the tube can be derived.

A temperature sensor mounted on the measuring tube monitors the temperature of the fluid in real time.

After obtaining the measurement results, the Transmitter will display the measured values of mass total, density, temperature, etc. through the OLED display, on the other hand, the relevant parameters can be passed through the industry standard 4-20mA current or PWM pulse or RS485 interface output outward, easy to read by host computer or other secondary instruments.

The Transmitter is equipped with light-sensitive explosion-proof buttons, OLED display screen and LED indicator light, which can realize medium measurement, function operation, query and working status display.

Parameters	
Nominal diameter DN(mm)	DN50~DN300
End connection	Wafer
Body material	UPVC(-10°C~+70°C)、CPVC(-40°C~+95°C)、RPP(-14°C~+100°C)、PVDF(-40°C~+140°C)
Disc material	UPVC(-10°C~+70°C)、CPVC(-40°C~+95°C)、RPP(-14°C~+100°C)、PVDF(-40°C~+140°C)
Sealing material	PTFE、EPDM、NBR
Applicable medium	PVC chemical solvent compatible food industry

SIZE	Item	D1	D2	H2	H1
mm		1.0MPa	1.0MPa		
DN50	HL-5	125	165	263	82
DN65		145	185	274	92
DN80		160	200	318	100
DN100	HL-10	180	220	334	110
DN125		210	249	369	124
DN150	HL-20	240	283	406	142
DN200		295	340	452	170
DN250	HL-50	350	395	503	198
DN300	HL-100	410	460	557	230

Datasheet

Electric aeration butterfly valve

Electric aeration butterfly valve is composed of part-turn electric actuator and butterfly valve, this kind of aeration butterfly valve can be matched with HL electric actuator, which have the function of: Built-in positioner, Opening Position Signal Feedback, Position indication, Manual operation, etc. Supplied with AC220V/AC380V, and can be run with input (4-20mA DC or 0-10VDC) current and voltage signals to achieve the purpose of flow rate control by modulating control and on-off control.

Its main features: nominal pressure <math>< 0.6 \text{ Mpa}</math>, the leakage rate control is less than 2%, used in industry, metallurgy, environmental protection and other piping for adjusting the flow of the medium. With the characteristics of simple structure, light weight, low operating torque, opening and closing fast, flexible movement, huge flow capacity.

Applications

- Smoke
- Dust
- Air or slurry fluid regulation and control



Features

- Simple structure
- Light weight
- Low operating torque
- Opening and closing fast
- Flexible movement
- Huge flow capacity

Electric aeration butterfly valve

Principle

The electric aeration butterfly valve is designed to regulate the flow of air in aeration systems. Its operation is centered around an electric actuator. When an electrical signal is transmitted to the

actuator, it converts electrical energy into mechanical motion. This mechanical motion is then transferred to the valve shaft.

Attached to the valve shaft is a disc. In an aeration system, when the valve needs to increase the air flow for processes like aerating a water treatment tank, the electric actuator rotates the valve shaft, causing the disc to move to a position parallel to the air flow path. This allows air to pass through the valve with relatively low resistance.

Conversely, when less air flow is required, the actuator rotates the shaft in the opposite direction, positioning the disc perpendicular or at an angle to the air flow. As the disc blocks more of the air passage, the air flow rate is reduced. This precise control of air flow by the electric aeration butterfly valve is crucial for maintaining the optimal aeration conditions in various industrial and environmental applications.

Parameters		
Nominal diameter DN(mm)	DN50~DN1600	
Nominal pressure	PN0.1/0.25/0.6MPa	
Disc corner	0~70°	
Acting type	Electrical open or electrical close	
Flow characteristic	Approximately equal percentage	
Permissible differential pressure(MPa)	0.6	
Performance index	basic error:+2.5%;hysteresis≤+2.0%;dead space+3.0%	
Power supply	AC220V、AC380V、DC24V	
Modulating type	Signal range	4-20mA、0-10V、1-5V
On-off type	Electrical signal	AC220V、AC380V、DC24V;Feedback signal; Active contact signal or Passive contact signal

SIZE		Item	D1	H2	H1	L
mm	inch					
50	2"	HL-5	0.25MPa 110	216	70	108
65	2 1/2"		130	217	80	112
80	3"		150	225	95	114
100	4"	HL-10	170	245	105	127
125	5"		200	244	120	140
150	6"		225	267	132	140
200	8"		280	360	160	152
250	10"	HL-20	335	443	187	165

300	12		395	480	220	178
350	14°	HL-50	445	555	245	190
400	16		495	593	270	216
450	18°		550	621	297	222
500	20°		600	678	322	229
600	24		705	723	377	267
700	28	HL-100	810	803	430	292
800	32		920	857	487	318
900	36	HL-200	1020	1013	537	330
1000	40°		1120	1073	587	410
1200	48	HL-400	1320	1188	702	470
1400	56°		1520	1888	782	530
1600	64	HL-600	1370	1915	895	600

Datasheet**Electric Lined Fluorine butterfly valve**

D971F46/D941F46 electric fluorine-lined butterfly valve has two control modes: switch control and regulation control. The electric actuator can work by inputting control signal (4-20mA DC or 1-5VDC) and single-phase power supply. This type of butterfly valve is powerful, small in size, reliable in performance and large in flow. The valve body, valve disc and valve stem are all lined with fluorine, which has good corrosion resistance and is suitable for liquids such as acid, alkali, salt, oxidant and other liquids of any concentration. It is used in gas and liquid systems such as chemical industry, petroleum, pharmaceutical, food, steel smelting, papermaking, water treatment, etc. This product can be widely used in some fields to replace cut-off or control valves such as gate valves and stop valves.

Applications

- Chemical industry
- Petroleum
- Pharmaceuticl
- Food
- Steel smelting
- Papermaking
- Water treatment

**Features**

- Powerful, small in size, reliable in performance and large in flow
- Small and lightweight, easy disassembly and maintenance, and can be installed in any location
- Simple and compact, open and close quickly
- Operating torque is small, easy to operate
- Flow characteristics tend to be straight line, good in regulation
- Valve seat with anti-aging, corrosion resistance
- Lined with F4, F3, F46 butterfly valve with corrosion-resistant, no leakage, long life

Electric Lined Fluorine butterfly valve**Principle**

The electric lined fluorine butterfly valve operates based on a combination of electrical power and mechanical design. An electric actuator is the driving force behind its operation. When an electrical signal is received, the actuator converts electrical energy into mechanical torque. This torque is then transferred to the valve shaft.

The valve shaft is connected to a disc, which is the key component for controlling the flow. The interior of the valve body is lined with fluorine - based material. This lining provides excellent corrosion resistance, making the valve suitable for handling aggressive chemicals and corrosive fluids.

When the valve is commanded to open, the electric actuator rotates the valve shaft, causing the disc to turn and align parallel to the direction of fluid flow. This allows the fluid to pass through the valve with minimal obstruction. To close the valve, the actuator rotates the shaft in the opposite direction, positioning the disc perpendicular to the flow. The disc then seals against the fluorine - lined seat, effectively blocking the fluid flow. This mechanism enables precise control of the flow rate and complete shut - off of corrosive media in industrial processes.

Parameters	
Control signal	4-20mADC or 1-5 VDC

SIZE		Item	OD2	L	H1	H2
mm	inch					
DN50	2"	HL-10	125	43	114	124
DN65	2 1/2"		145	46	126	
DN80	3"		160	46	135	
DN100	4"	HL-20	180	52	148	148
DN125	5"		210	56	168	
DN150	6"	HL-50	240	56	180	148
DN200	8"		295	60	229	
DN250	10"	HL-100	350	68	280	159
DN300	12"	HL-200	400	78	298	159
DN350	14"		460	78	340	
DN400	16"		515	102	370	
DN450	18"	HL-400	565	114	390	179
DN500	20"		620	127	440	

Datasheet**Electric wafer butterfly valve(LQ type)**

The integrated structure wafer center line butterfly valve can be used with the HL type electric actuator with input (4-20mADC, 0-10VDC or 1-5VDC) signal or single-phase power supply. It has the characteristics of small size, large flow capacity, high adjustment accuracy, good sealing and light weight. It is widely used in industrial automation control systems in food, environmental protection, light industry, petroleum, papermaking, chemical industry, teaching and scientific research equipment, electric power and other industries.

Applications

- Food
- environmental protection
- Light industry
- Petroleum
- Papermaking
- Chemical industry
- Teaching and scientific research equipment
- Electric power

**Features**

- Small size
- Large flow capacity
- high adjustment accuracy
- good sealing and light weight

Electric wafer butterfly valve**Principle**

Based on the Coriolis principle, the measuring tubes are periodically vibrated at a fixed frequency under the action of an alternating current using magnets and coil assemblies mounted on the

measuring tubes and coil assemblies.

When the fluid medium of an industrial process flows through the measuring tubes, the Coriolis force effect, the two measuring tubes will vibrate in torsion. In addition, the vibration frequency of the tubes is determined by the total mass of the tubes and the fluid. Therefore, when the fluid density changes. Therefore, when the density of the fluid changes, the vibration frequency will also change accordingly, so that the density value of the fluid in the tube can be derived.

A temperature sensor mounted on the measuring tube monitors the temperature of the fluid in real time.

After obtaining the measurement results, the Transmitter will display the measured values of mass total, density, temperature, etc. through the OLED display, on the other hand, the relevant parameters can be passed through the industry standard 4-20mA current or PWM pulse or RS485 interface output outward, easy to read by host computer or other secondary instruments.

The Transmitter is equipped with light-sensitive explosion-proof buttons, OLED display screen and LED indicator light, which can realize medium measurement, function operation, query and working status display.

Main Parts	Material	Specifications	Main Parts	Material	Specifications
Valve Body	Ductile Iron	50mm~800mm	Valve Stem	Stainless Steel	50mm~800mm
	Cast Iron			45#Carbon Steel	
	WCB				
	Stainless Steel				
Valve Disc	304(CF8)	50mm~800mm	Valve Seat	EPDM	50mm~800mm
	316(CF8M)			NBR	
	D.I.Plated Nickel			PTFE	
	D.I.Coated Nylon			Viton	
	Alum-bronze			SEP	

SIZE		Item	OD1		L	H2	H1
mm	inch		1.0MPa	1.6MPa			
DN50	2	LQ1-6	125	43	363	76	
DN65	2 1/2		145	46	386	89	
DN80	3°		160	46	382	94	
DN100	4°	LQ1-10	180	52	424	114	
DN125	5°		210	56	457	127	

DN150	6°	LQ2-20	240		56	493	140
DN200	8°	LQ2-24	295		60	528	176
DN250	10"	LQ3-50	350	355	68	618	207
DN300	12"	LQ4-110	400	410	78	714	240
DN350	14"		460	470	78	745	273
DN400	16"	LQ4JS-200	515	525	102	877	322
DN450	18"	LQ4JS-250	565	585	114	899	340
DN500	20"		620	650	127	957	380
DN600	24"	LQ4JS-400	725	770	154	1201	467

Datasheet

Electric wafer metal seal butterfly valve

Flexibility with precision U-ring and triple offset metal hard sealing multi-level structure, which is widely used in medium temperature $\leq 425^{\circ}\text{C}$ of metallurgical, power, petrochemical, and municipal construction, drainage and industrial pipe, for regulation traffic and fluid truncated. The valve adopt triple offset structure. The sealing face of the valve seat and disc is made of the steel and stainless steel with good corrosion resistance, long service life. With the two-way sealing function, all the products up to the valve pressure test standard of national GB/T 13927-92.

Applications

- Medium temperature $\leq 425^{\circ}\text{C}$ of metallurgical
- Power
- Petrochemical
- Municipal construction
- Drainage and industrial pipe



Features

- Excellent sealing performance, corrosion resistance, long service life
- Wear resistance
- Installation in any direction

Electric wafer metal seal butterfly valve

Principle

The electric wafer metal - seal butterfly valve operates through the coordinated action of an electric actuator and a precisely engineered mechanical structure. At the core of its operation is an electric

actuator. When an electrical signal is received, the actuator promptly converts electrical energy into mechanical motion. This mechanical force is then transferred to the valve shaft.

The valve shaft is connected to a metal disc, which serves as the flow - controlling element. The valve body and the disc are designed with metal - to - metal sealing surfaces. When the valve is required to open, the electric actuator rotates the valve shaft, causing the disc to turn. As the disc rotates to a position parallel to the flow direction of the pipeline, it allows the fluid or gas to flow through the valve with relatively low resistance.

Conversely, when closing the valve, the actuator rotates the shaft in the opposite direction. The disc gradually moves towards the valve seat. Due to the high - precision machining of the metal - seal components, as the disc comes into contact with the seat, a tight seal is formed, effectively preventing the passage of the medium in the pipeline. This design enables the electric wafer metal - seal butterfly valve to handle high - pressure and high - temperature applications with reliable sealing performance.

Parameters				
Nomina diameter DN(mm)		DN50~DN600		
Nominal pressure		PN1.0MPa	PN1.6MPa	
Nominal pressure	Strength test	PN1.5MPa	PN2.4MPa	
	Seal test	PN1.1MPa	PN1.76MPa	
Materials/code name		C	P	R
Main Parts	Valve Body	WCB	304	316
	Valve Disc			
	Valve Stem	Carbon steel,Stainless Steel		
	O-ring	PTFE、stainless steel		
	Packing	PTFE、flexible graphite		
Applicable Operating Condition	Applicable medium	Water,steam,oils	nitrose	acetic acid
	Suitable temperature	WCB:-29℃~425℃ Stainless steel:-40~600℃		

SIZE		Item	OD1		OD2		H2	H1
mm	inch		1.0MPa	1.6MPa	1.0MPa	1.6MPa		
50	2"	LQ1-10	125		102		443	90
65	2.5"		145		122		487	110
80	3"	LQ2-16	160		133		523	115
100	4"	LQ2-20	180		158		533	130
125	5"	LQ2-24	210		185		583	150

150	6"	LQ3-35	240		216		671	165
200	8"	LQ3-50	295		272		757	210
250	10°	LQ4-110	350	355	320	320	817	245
300	12	LQ4JS-200	400	410	372	372	967	280
350	14°	LQ4JS-250	460	470	420	430	1032	315
400	16	LQ4JS-400	515	525	480	480	1209	345
450	18"		565	585	535	545	1274	380
500	20	LQ4JS-600	620	650	585	610	1299	415
600	24		725	770	685	720	1314	460

Datasheet**Electric soft seal butterfly valve flanged**

Electric flanged soft seal butterfly valve is suitable for temperature $\leq 120^{\circ}\text{C}$, nominal pressure $\leq 1.6\text{MPa}$ of food industry, pharmaceutical, chemical industry, oil, electricity power, textile, paper making and other liquid/gas regulation.

Applications

- Chemical
- Food industry
- Pharmaceutical
- Chemical industry
- Oil
- Electricity power
- Textile
- Paper making

**Features**

- Design reasonable, unique structure, light weight, open and close quickly
- Operation torque small, easy operation
- Mounted in any position, and easy maintenance
- The seal parts can be replaced, zero leakage of reliable seal performance
- The seal material is anti-aging, corrosion resistance with long life and other characteristics

Electric soft seal butterfly valve flanged

Principle

The electric flanged soft seal butterfly valve is a crucial component in fluid control systems. Its

operation begins when an electric actuator receives an electrical signal. This actuator is the driving force behind the valve's movement. Once the signal is received, the actuator transforms electrical energy into mechanical power.

This mechanical power is then transferred to the valve stem. Attached to the valve stem is a disc made of a soft - sealing material, which is the key to the valve's sealing performance. When the valve needs to be opened, the electric actuator rotates the valve stem. As the stem rotates, the disc also turns and moves to a position parallel to the flow direction of the fluid in the pipeline. This allows the fluid to flow through the valve with minimal resistance.

On the other hand, when the valve is required to close, the actuator rotates the stem in the opposite direction. The disc then rotates until it presses firmly against the valve seat. Thanks to the soft - sealing material of the disc, it can form a tight and reliable seal, preventing any fluid from leaking through the valve, even at relatively low pressures. This way, the electric flanged soft seal butterfly valve can accurately control the flow, start, and stop of fluids in pipelines, making it widely used in various industries where good sealing and flow control are essential.

Parameters			
Nominal diameter DN(mm)		DN50~DN700	
Nominal pressure		PN1.0MPa	PN1.6MPa
Nominal pressure	Strength test	PN1.5MPa	PN1.6MPa
	Seal test	PN1.1MPa	PN1.76MPa
Main Parts	Valve Body	Ductile iron、WCB、Stainless Steel	
	Valve Disc	Ductile iron,cast iron,WCB,Stainless steel and special materials	
	Valve Stem	Carbon steel,Stainless Steel	
	O-ring	Rubber,PTFE,EPDM	
	Packing	PTFE、flexible graphite	
Applicable Operating Condition	Applicable medium	Water、air、oils,etc.	
	Suitable temperature	≤120℃	

SIZE		Item	OD1		L	H2	H1
mm	inch		1.0MPa	1.6MPa			
DN50	2"	LQ1-6	125	108	331	70	
DN65	2 1/2"		145	112	355	78	
DN80	3"	LQ1-10	160	114	372	87	
DN100	4"		180	127	394	105	

DN125	5"		210		140		414		120
DN150	6"	LQ2-20	240		140		478		134
DN200	8"	LQ2-24	295		152		508		163
DN250	10"	LQ3-50	350	355	165		571		202
DN300	12"		400	410	178		735		230
DN350	14"	LQ4-110	460	470	190		783		245
DN400	16"	LQ4JS-200	515	525	216		852		305
DN450	18"		565	585	222		875		345
DN500	20"	LQ4JS-250	620	650	229		907		375

Datasheet**Electric metal seal butterfly valve flanged**

Electric flanged metal seal butterfly valve use J-shaped elastic seal ring and triple offset metal seal structure, which is widely used in medium temperature $\leq 425^{\circ}\text{C}$ of electricity power, petrochemical industry, as well as drainage and other industries of the pipeline for regulating the flow.

Applications

- Electricity power
- Petrochemical industry
- Drainage
- Pipeline industry

**Features**

- Excellent sealing performance
- Corrosion resistance
- Long service life

Electric metal seal butterfly valve flanged

Principle

The electric flanged metal seal butterfly valve is a sophisticated device for controlling fluid flow. It operates primarily through an electric actuator. When an electrical signal is sent to the actuator, it

converts electrical energy into mechanical motion. This mechanical motion is then transferred to the valve shaft.

The valve shaft is connected to a metal disc, which is the main element for regulating the flow. The valve body and the disc are designed with metal - to - metal sealing surfaces. When the valve is to be opened, the electric actuator rotates the valve shaft, causing the disc to turn and align parallel to the fluid flow direction in the pipeline. As a result, the fluid can flow through the valve with relatively low resistance.

When it comes to closing the valve, the actuator rotates the shaft in the opposite direction. The disc gradually moves towards the valve seat. Due to the high - precision machining and proper design of the metal - seal components, when the disc contacts the seat, a tight and reliable seal is formed. This effectively blocks the passage of the fluid in the pipeline, enabling the valve to handle high - pressure and high - temperature applications, as well as media that demand excellent sealing performance. The flanged connection ensures a secure and leak - proof installation between the valve and the pipeline, facilitating the valve's smooth operation in industrial fluid control systems.

Parameters			
Nominal diameter DN(mm)		DN40~DN600	
Nominal pressure		0-1.6MPa	
Nominal pressure	Strength test	PN1.5MPa	PN1.6MPa
	Seal test	PN1.1MPa	PN1.76MPa
Main Parts	Valve Body	Ductile iron、 WCB、 Stainless Steel	
	Valve Disc	Ductile iron,cast iron,WCB,Stainless steel and special materials	
	Valve Stem	Carbon steel,Stainless Steel	
	O-ring	Rubber,PTFE,EPDM	
	Packing	PTFE、 flexible graphite	
Applicable Operating Condition	Applicable medium	Water、 steam、 oils、 nitrose、 acetic acid,etc.	
	Suitable temperature	Carbon steel:-29℃~425℃ Stainless steel:-40℃~650℃	

SIZE		Item	OD1		OD2		H2	H1
mm	inch		1.0MPa	1.6MPa	1.0MPa	1.6MPa		
40	1 3/4	LQ1-10	110	150	443	90		
50	2°		125	165	443	90		
65	2.5"		145	185	487	105		
80	3°	LQ2-16	160	200	523	120		

100	4°	LQ2-20	180	220	533	130		
125	5°	LQ2-24	210	250	583	164		
150	6"	LQ3-35	240	285	671	175		
200	8"	LQ3-50	295	340	757	200		
250	10"	LQ4-110	350	355	395	405	817	243
300	12"	LQ4JS-200	400	410	445	460	967	250
350	14"	LQ4JS-250	460	470	505	520	1032	280
400	16"	LQ4JS-400	515	525	565	580	1209	305
450	18"		565	585	615	640	1274	350
500	20"	LQ4JS-600	620	650	670	715	1299	380
600	24"		725	770	780	840	1314	445

Datasheet

Electric PVC butterfly valve

Mass flow meter is a new type of advanced flow measurement instrument and has been rapidly developed in the world. It has been widely used for process detection and custody transfer measurement in many industries such as petroleum, petrochemical, chemical, pharmacy, marine, pharmaceutical, municipal, paper, food and energy and so on. It has been highly valued by the flow research community and welcomed by users at home and abroad. Are used in conjunction with BPM Transmitters to provide accurate instantaneous flow, flow totals, and real-time monitoring of density and temperature.

Applications

- General water and raw water piping system
- Drainage and sewage piping systems
- Salt water and sea water piping systems
- PH and chemical solution system



Features

- Light weight, corrosion resistance
- Excellent strength and toughness
- Excellent chemical corrosion resistance
- Flame retardant is self-extinguishing
- Low thermal conductivity, about 1/200 of steel
- Hygiene indicators meet national health standards
- The pipe wall is smooth and clean, and produces less friction and adhesion when conveying fluids
- Easy to install
- Excellent anti-aging and anti-ultraviolet performance, long service life

Electric PVC butterfly valve

Principle

The electric PVC butterfly valve operates on a principle that combines electrical control with mechanical movement. At the heart of its functionality is an electric actuator. When an electrical signal is transmitted to the actuator, it transforms electrical energy into mechanical force. This mechanical force is then transferred to the valve shaft.

The valve shaft is connected to a disc made of PVC (Polyvinyl Chloride), which is the main component for regulating the flow of fluid. When the valve is commanded to open, the electric actuator rotates the valve shaft, causing the disc to turn until it is parallel to the direction of fluid flow. This allows the fluid to pass through the valve with minimal obstruction, enabling a smooth flow through the pipeline.

Conversely, when the valve needs to be closed, the actuator rotates the shaft in the opposite direction. The disc then moves to a position perpendicular to the fluid flow, effectively blocking the passage of the fluid. The PVC material of the valve offers corrosion - resistance, making it suitable for handling a variety of fluids in applications where chemical resistance is required. Through this mechanism, the electric PVC butterfly valve can precisely control the start, stop, and flow rate of fluid in the pipeline system.

Parameters	
Nominal diameter DN(mm)	DN50~DN300
End connection	Wafer
Valve body material	UPVC(-10°C~+70°C)、CPVC(-40°C~+95°C)、 RPP(-14°C~+100°C)、PVDF(-40°C~+140°C)
Disc material	UPVC(-10°C~+70°C)、CPVC(-40°C~+95°C)、 RPP(-14°C~+100°C)、PVDF(-40°C~+140°C)
Sealing material	PTFE、EPDM、NBR
Applicable medium	PVC chemical solvent compatible food industry

SIZE	Item	D1	D2	H2	H1
mm		1.0MPa	1.0MPa		
DN50	LQ1-6	125	165	333	82
DN65		145	185	344	92
DN80	LQ1-10	160	200	388	100
DN100		180	220	404	110
DN125		210	249	439	124
DN150	LQ2-20	240	283	486	142
DN200	LQ2-24	295	340	532	170
DN250	LQ3-50	350	395	603	198
DN300	LQ4-80	410	460	817	230

Datasheet**Electric sanitary butterfly valve**

Sanitary butterfly valves are suitable for applications with high hygiene requirements, such as food, beverages, pharmaceuticals, dairy products, beer and chemicals.

Applications

- Food
- Beverages
- Pharmaceuticals
- Dairy products
- Beer and chemicals

**Features**

- Valve body and valve bore touched with medium are 304,316 or 316L
- Removable valve body, simple structure, easy maintenance.
- Design beautiful,surface smooth,without burrs
- End connection:weld,clamp,thread
- Product Quality:polishing treatment to meet surface accuracy requirements
- Product accuracy:In compliance with 3A, DIN, SMS, BS standard.

Electric sanitary butterfly valve**Principle**

The electric sanitary butterfly valve is a key component in hygienic fluid control systems. Its operation is driven by an electric actuator. When an electrical signal is received by the actuator, it converts the electrical energy into mechanical motion. This mechanical motion is then transferred to the valve shaft. The valve shaft is connected to a disc, which is the main part for controlling the fluid flow. In sanitary applications, where maintaining a high - level of cleanliness and preventing contamination is crucial, the valve is designed with smooth surfaces and materials that meet strict sanitary standards.

When the valve is required to open, the electric actuator rotates the valve shaft, causing the disc to turn and align parallel to the direction of the fluid flow in the pipeline. This allows the fluid, such as food products, pharmaceuticals, or clean water, to pass through the valve with minimal resistance and without causing any damage to the media.

To close the valve, the actuator rotates the shaft in the opposite direction. The disc then moves to a position perpendicular to the fluid flow, effectively blocking the passage of the fluid. The tight - fitting seal between the disc and the valve seat ensures that there is no leakage, which is essential for maintaining the integrity of the sanitary process. Through this simple yet effective mechanism, the electric sanitary butterfly valve provides accurate and reliable control of fluid flow in sanitary environments.

Parameters	
Nominal diameter DN(mm)	DN15~DN150
Nominal pressure	1.0MPa
Suitable temperature	-10℃~150℃
Suitable medium	Liquid ,gas,oil,Various corrosion chemistry mediums
Valve body material	304、 316、 316L
Valve bore material	304、 316、 316L
Seal material	Silicon rubber,EPDM,FPM
Nominal diameter DN(mm)	DN15~DN150
Nominal pressure	1.0MPa
Suitable temperature	-10℃~150℃
Suitable medium	Liquid ,gas,oil,Various corrosion chemistry mediums
Valve body material	304、 316、 316L
Valve bore material	304、 316、 316L
Seal material	Silicon rubber,EPDM,FPM

SIZE	Item	D1	D	H	H1
mm					
019	LQ1-10	16.5	50.5	298	38.5
025		22	50.5	298	38.5
032		29	50.5	298	38.5
038		35	50.5	300	39.5
045		40	64	302	44
051		48	64	305	47
063		59	77.5	312	55.5
076		72	91	318	61.5
089		85	106	322	69.5
0102		99	119	349	77.5
0133		125	145	164	93
0159		151	183	380	107

Datasheet**Electric Lined Fluorine butterfly valve**

D971F46/D941F46 electric lined Fluorine butterfly valve has two kinds of control methods ON-OFF and Modulating control. Electric actuator can work when the control signal (4- 20mADC or 1-5 VDC) and single-phase power supply to be input, this kind of butterfly valve has a strong function with small size, reliable performance, high flow capacity. Valve body, valve disc and valve stem all lined with Fluorine, with excellent corrosion resistance, suitable for any concentrations of liquid such as acid, alkali, salt and oxidants, and used at chemical, petroleum, pharmaceutical, food, iron and steel smelting, paper making, water treatment and other systems like gas, liquid. The products can be widely used in some areas to instead of the gate valve, globe valve and other types of shut-off or control valves.

Applications

- Acid
- Alkali
- Salt, oxidants
- Chemical
- Petroleum, pharmaceutical
- Food, iron and steel smelting
- Paper making
- Water treatment and other systems like gas

**Features**

- Convenient man-machine interface
- Small and lightweight, easy to disassemble and maintain, and can be installed in any location
- simple and compact, open and close quickly
- Operating torque is small, easy to operate
- Flow characteristics tend to be straight line, good in regulation
- Valve seat with anti-aging, corrosion resistance

Electric Lined Fluorine butterfly valve**Principle**

The electric lined fluorine butterfly valve is a specialized device designed for handling corrosive fluids.

Its operation hinges on an electric actuator. When an electrical signal is sent to the actuator, it converts electrical energy into mechanical movement. This mechanical force is then transferred to the valve shaft.

The valve shaft is connected to a disc. The interior of the valve body is lined with fluorine - based materials, which offer excellent chemical resistance. When the valve needs to open, the electric actuator rotates the valve shaft, causing the disc to turn and align parallel to the flow direction of the fluid. As a result, the corrosive fluid can flow through the valve with relatively low resistance, as the fluorine lining protects the valve body from the corrosive action of the fluid.

When closing the valve, the actuator rotates the shaft in the opposite direction. The disc gradually moves towards the valve seat. Once the disc makes contact with the seat, a tight seal is formed due to the precision - engineered design. This effectively blocks the flow of the corrosive fluid, preventing any leakage. In this way, the electric lined fluorine butterfly valve can accurately control the flow and shut - off of highly corrosive media in industrial pipelines.

Parameters		
Nominal diameter range	DN10~DN350	
Measuring range	Mass flow, mass total, volume flow, volume total, temperature, density	
Pressure level	Standard configurations are 1.6MPa and 4.0MPa, supporting customer-specific customized pressure levels. The maximum pressure can reach 25MPa	
Mass flow technical indicators	Accuracy	±0.1%,±0.15%,±0.25%,±0.5%
	Repeatability	±0.025%
Density Performance Index (Liquid)	Density error	±0.0005g/cm ³
	Repeatability	±0.0001g/cm ³
	Measuring range	(0.2~2.0)g/cm ³
Temperature measurement range	(-240~204)°C	
Ambient temperature	(-40~60)° C	
Explosion-proof level	Sensor	Ex ib IIC T1~T6 Gb
	Launcher	Ex d [ib] IIC T4 Gb
Protection level	Sensor	IP67
	Launcher	IP65
Signal output	Pulse, 4-20mA, RS-485 communication	
Power	24VDC and 220VAC adaptive	

SIZE		Item	D2	L	H1	H2
mm	inch					
DN50	2	LQ1-10	125	43	114	223
DN65	2 1/2		145	46	126	
DN80	3	LQ2-20	160	46	135	261
DN100	4°		180	52	148	
DN125	5°		210	56	168	
DN150	6°	LQ3-50	240	56	180	315
DN200	8		295	60	229	
DN250	10°	LQ4-110	350	68	280	353
DN300	12	LQ4JS-250	400	78	298	457
DN350	14°		460	78	340	
DN400	16	LQ4JS-400	515	102	370	575
DN450	18°		565	114	390	
DN500	20°		620	127	440	