



# FOLS

## 富莱斯

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ISO9001 CE RoHS 



## OPERATING MANUAL

## Introduction

Ultra Low Torque, Elegant, Durable, Corrosion Resistance

Electric ball valve is a form of quarter-turn valve, it is characterized by well sealed, low resistance, compact structure, easy maintain, long service life. It perfect connects with pipe, allow medium to flow without loss, is suitable for the field that required strictly for seal. Applicative medium like gas, liquid, water, steam and other fibrous material medium in sewage is ok for electric ball valve. It is widely used in food, pharmacy, cosmetics, clean steam, wine industry, beverage industry, chemical industry etc.

## Electric Actuator

ON-OFF type	Feedback: the active signal, passive contact signal, resistance, 4-20mA
Regulation type	Input and output signal: 4-20mA, 0-10v, 1-5v, switch, MODBUS, PROFIBUS field bus
Filed operation	The field, remote control switch regulation and MODBUS, PROFIBUS field bus
Voltage Option	AC110-240VAC 380V 50/60Hz; 24VAC,DC12V, DC24V ; Special voltage can be customized.
Protection Clase	IP65, Explosion Proof Constrution Are Available: EX d II BT4

## Technical Parameters

Body		Valve components	
Nominal size	1/2"~16", DN15~DN400	Seat material	PTFE: -30°C~180°C PPL: -30°C~250°C,
Body material	WCB SS304 SS316 SS316L	Core material	WCB SS304 SS316
Connection type	Flange (GB/ANSI/DIN/JIS)	Stem material	Stainless Steel
Pressure Rating	1.6, 2.5, 4.0, 6.4MPa	Applicable medium	Water, Liquids, Gas, Oil, Powder, Steam, Acid-base Corrosive Medium.
Structure type	2 Way (Floating ball core)		

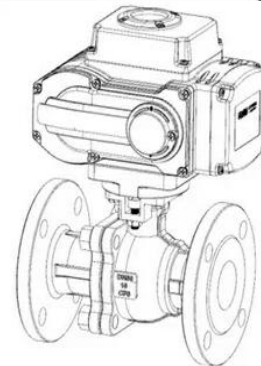
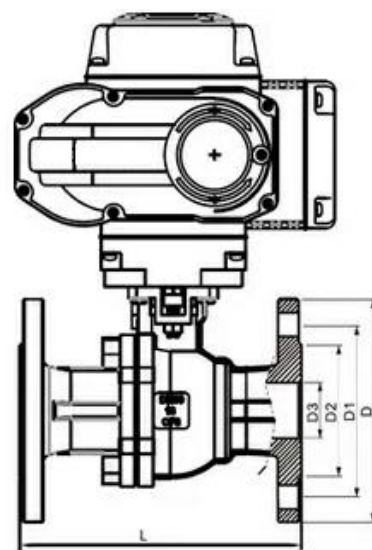
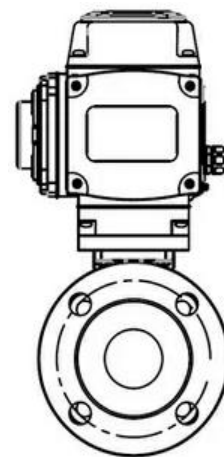
## Outline Size drawing

UNIT: mm

MEDLE	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80	DN100	DN125	DN150	DN200
G	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	4"	5"	6"	8"
D3	15	20	25	30	40	50	65	80	100	125	150	200
D2	45	55	65	78	85	100	120	135	155	185	210	265
D1	65	75	85	100	110	125	145	160	180	210	240	295
D	95	105	115	135	145	160	180	195	215	245	280	335
L	130	140	150	165	180	200	222	250	280	320	360	400
n-φd	4-φ14	4-φ14	4-φ14	4-φ18	4-φ18	4-φ18	4-φ18	8-φ18	8-φ18	8-φ18	8-φ28	4-φ23
Weight (Kg)	5.4	5.7	6.1	7.4	8.7	11.6	15.6	17.1	24.98	33.5	43.5	
Actuator	FOSD-05					FOSD-10	FOSD-16	FOSD-30		FOSD-60	FOSD-125	

## Installation Instruction

1. Verify that the valve breakaway torque is less than the rated output torque of the actuator.
2. Any mechanical stops that would interfere with the operation of the actuator must be removed before installation of the actuator, i.e. lever, travel stops, etc.
3. The actuator output coupling must be centered with the valve stem to prevent side loading, which causes premature stem packing wear.
4. To use the manual override feature (identified on cover label), the override shaft must be pressed down firmly at least 1/4" in order to disengage the motor from the gears. The manual override is not designed to overcome torque in excess of the rated torque of the actuator. Serious damage to the gear system may result from excessive turning force on the manual override.
5. This Series actuator may be mounted in any position, i.e. horizontal, upside down. If the conduit entrance points upward, conduit piping must be oriented as to prevent condensation from entering the actuator from the conduit pipe.



### Introduction

The 3 piece design allows for the center part of the valve containing the ball, stem & seats to be easily removed from the pipeline. This facilitates efficient cleaning of deposited sediments, replacement of seats and gland packings, polishing out of small scratches on the ball, all this without removing the pipes from the valve body. The design concept of a three piece valve is for it to be repairable.

### Electric Actuator

ON/OFF Type	Feedback: the Active Contact Signal, Passive Contact Signal, Resistance, 4-20mA
Regulation Type	Input & Output Signal: DC 4-20mA, DC 0-10V, DC 1-5V
Field Operation	The Field, Remote Control Switch Regulation and MODBUS, PROFIBUS Field Bus
Voltage Optional	AC110-240V 380V 50/60Hz; DC12V, DC24V, Special Voltage Can be Customized
Protection Class	Ip65; Explosion Proof Construction Are Available: EX d II BT4

### Technical Parameters

Body		Valve components	
Nominal size	DN08-DN100	Seat material	PTFE: -20℃~180℃ PPL: -20℃~250℃
Body material	SS304 SS316 SS316 L	Core material	SS304 SS316
Connection type	Female Thread	Stem material	SS304
Pressure Rating	PN1.0, 2.5, 4.0, 6.4, 31.5MPa	Applicable medium	Water, Liquids, Gas, Oil, Powder, Steam, Acid-base Corrosive Medium.
Structure type	Floating ball core		

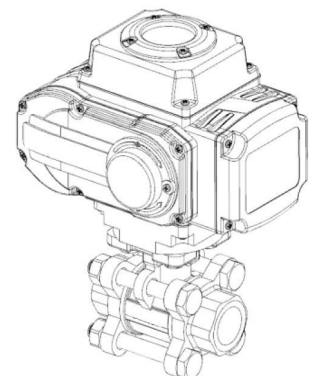
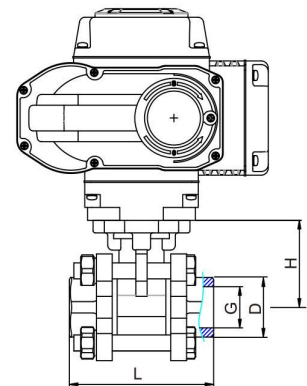
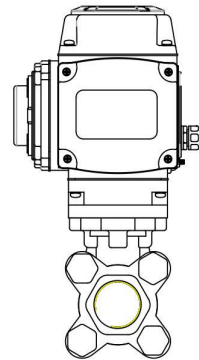
### Qutine Size drawing

UNIT: mm

MEDLE	DN08	DN10	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80	DN100
Actuator	FOSD-05							FOSD-10	FOSD-16	FOSD-30	
G	1/4"	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	4"
D	11.2	12.5	15	20	25	32	40	50	65	80	100
L	60	60	72	82	90	112	120	145	185	210	268
H	42	42	42	48.5	58.5	63	71	78	100	109	140
Weight (Kg)	3.8	3.8	3.8	3.8	4.1	4.5	5.0	5.7	10.1	14.6	19.8

### Installation Instruction

1. Verify that the valve breakaway torque is less than the rated output torque of the actuator.
2. Any mechanical stops that would interfere with the operation of the actuator must be removed before installation of the actuator, i.e. lever, travel stops, etc.
3. The actuator output coupling must be centered with the valve stem to prevent side loading, which causes premature stem packing wear.
4. To use the manual override feature (identified on cover label), the override shaft must be pressed down firmly at least 1/4" in order to disengage the motor from the gears. The manual override is not designed to overcome torque in excess of the rated torque of the actuator. Serious damage to the gear system may result from excessive turning force on the manual override.
5. This Series actuator may be mounted in any position, i.e. horizontal, upside down. If the conduit entrance points upward, conduit piping must be oriented as to prevent condensation from entering the actuator from the conduit pipe.





### Introduction

Electric 3 way ball valve is equipped with FOSE series electric actuator, it needn't extra servo amplifier, accept 4-20mA or 1-5 V DC input signal to regulating or open and shut medium. The standard balls of 3 way ball valve is L port type with two holes, and change the angle between hole and pipe to alternate. The T port ball with 3 holes, connection to the port in the center from either side post is possible with L-port, or alternatively it can disconnect all ports. however, connecting together to the side ports is not possible. The electric 3 way ball valve is widely used in paper making, sugar industry, petroleum, chemistry, metallurgy, air-condition, fire protection, water supply and industrial automation and so on.

### Electric Actuator

ON-OFF type	Feedback: the active signal, passive contact signal, resistance, 4-20mA
Regulation type	Input and output signal: 4-20mA, 0-10v, 1-5v, switch, MODBUS, PROFIBUS field bus
Filed operation	The field, remote control switch regulation and MODBUS, PROFIBUS field bus
Voltage Option	AC110-240VAC 380V 50/60Hz; 24VAC,DC12V, DC24V ; Special voltage can be customized.
Protection Clase	IP65, Explosion Proof Constrution Are Available: EX d II BT4

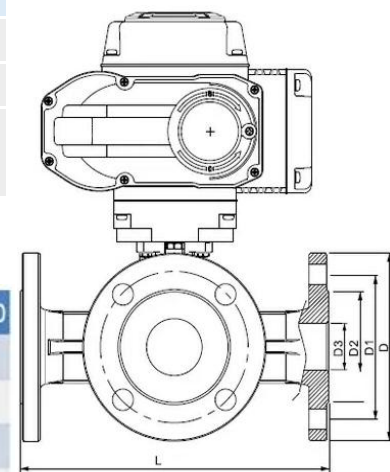


### Technical Parameters

Body		Valve components	
Nominal size	1/2"~8", DN15~DN200	Seat material	PTFE: -30°C~180°C PPL: -30°C~250°C,
Body material	WCB SS304 SS316 SS316L	Core material	WCB SS304 SS316
Connection type	Flange (GB/ANSI/DIN/JIS)	Stem material	Stainless Steel
Pressure Rating	1.6, 2.5, 4.0, 6.4MPa	Applicable medium	Water, Liquids, Gas, Oil, Powder, Steam, Acid-base Corrosive Medium.
Structure type	3 Way		

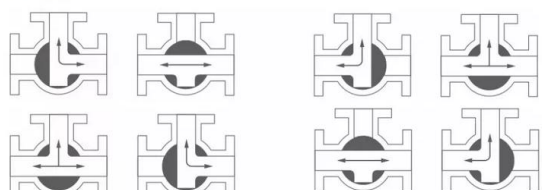
### Outline Size drawing

MEDLE	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80	DN100	DN125	DN150	DN200
G	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	4"	5"	6"	8"
D3	15	20	25	30	40	50	65	80	100	125	150	200
D2	45	55	65	78	85	100	120	135	155	185	210	265
D1	65	75	85	100	110	125	145	160	180	210	240	295
D	95	105	115	135	145	160	180	195	215	245	280	335
L	150	164	180	200	220	240	260	280	320	380	440	550
H	53	58.5	70	77.5	88.5	92	107	119	150	200	240	300
B	72	80	90	100	110	120	130	140	160	190	220	260
n-φd	4-φ14	4-φ14	4-φ14	4-φ18	4-φ18	4-φ18	4-φ18	8-φ18	8-φ18	8-φ18	8-φ28	4-φ23
Weight (Kg)												
Actuator	FOSD-05			FOSD-10		FOSD-16	FOSD-30		FOSD-60	FOSD-125	FOSD-250	

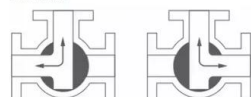


Flow Diagram

T Pattern



L Pattern



## Introduction

Electric 3 way ball valve is equipped with FOSE series electric actuator, it needn't extra servo amplifier, accept 4-20mA or 1-5 V DC input signal to regulating or open and shut medium. The standard balls of 3 way ball valve is L port type with two holes, and change the angle between hole and pipe to alternate. The T port ball with 3 holes, connection to the port in the center from either side post is possible with L-port, or alternatively it can disconnect all ports. however, connecting together to the side ports is not possible. The electric 3 way ball valve is widely used in paper making, sugar industry, petroleum, chemistry, metallurgy, air-condition, fire protection, water supply and industrial automation and so on.

## Electric Actuator

ON-OFF type	Feedback: the active signal, passive contact signal, resistance, 4-20mA
Regulation type	Input and output signal: 4-20mA, 0-10v, 1-5v, switch, MODBUS, PROFIBUS field bus
Filed operation	The field, remote control switch regulation and MODBUS, PROFIBUS field bus
Voltage Option	AC110-240VAC 380V 50/60Hz; 24VAC,DC12V, DC24V ; Special voltage can be customized.
Protection Clase	IP65, Explosion Proof Constrution Are Available: EX d II BT4



## Technical Parameters

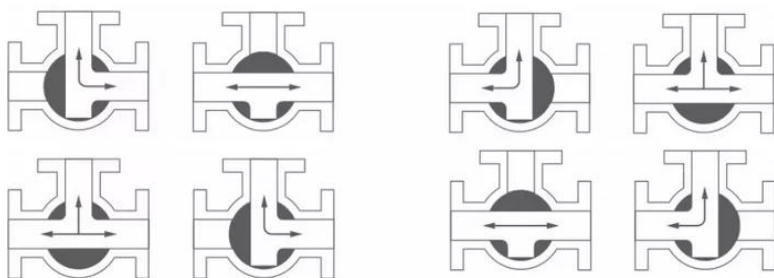
Body		Valve components	
Nominal size	1/2"~2", DN15~DN50	Seat material	EPDM: -5°C~120°C, PTFE: -30°C~180°C
Body material	Stainless Steel 304/316	Core material	Stainless Steel 304/316
Connection type	Threaded	Stem material	Stainless Steel
Pressure Rating	0~1.6MPa	Applicable medium	Control of Water, Air, Gas, Oil, Liquid, Steam
Structure type	3 Way		

## Outline Size drawing

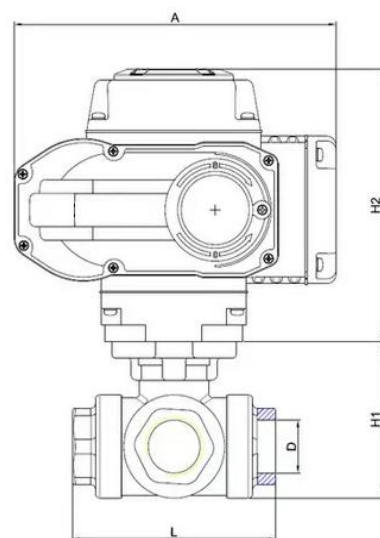
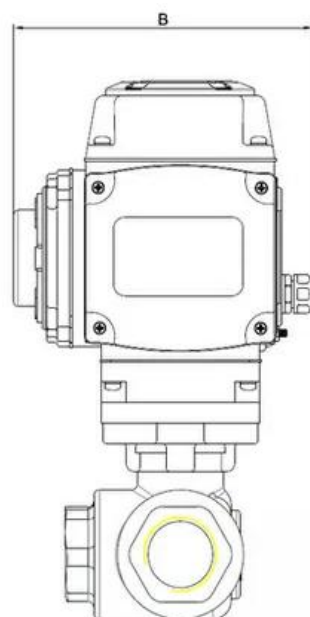
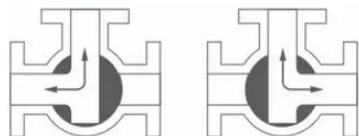
MEDLE	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80	DN100
Actuator	FOSD-05		FOSD-10		FOSD-16		FOSD-30		
G	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	4"
D	15	20	25	32	40	50	65	80	100
L	72	85	90	117	136	151			
H	37	39	48	57	68	78			
Weight (Kg)	3.8	3.8	4.1	4.5	5.0	5.7			

## Flow Diagram

### T Pattern



### L Pattern



## Introduction

Electric plastic true union valve is union connection, and it is characterized by compact structure, strong corrosion resistance, easy installation, easy maintenance. The valve body is hygienic, non-poisonous and non harmful with light weight. It is widely used in water supply industry, such as purifier water system, drinking water system, drainage system, sewage system, salt water system, chemical solution system.

## Electric Actuator

ON-OFF type	Feedback: the active signal, passive contact signal, resistance, 4-20mA
Regulation type	Input and output signal: 4-20mA, 0-10v, 1-5v, switch, MODBUS, PROFIBUS field bus
Filed operation	The field, remote control switch regulation and MODBUS, PROFIBUS field bus
Voltage Option	AC110-240VAC 380V 50/60Hz; 24VAC,DC12V, DC24V ; Special voltage can be customized.
Protection Clase	IP65, Explosion Proof Constrution Are Available: EX d II BT4

## Technical Parameters

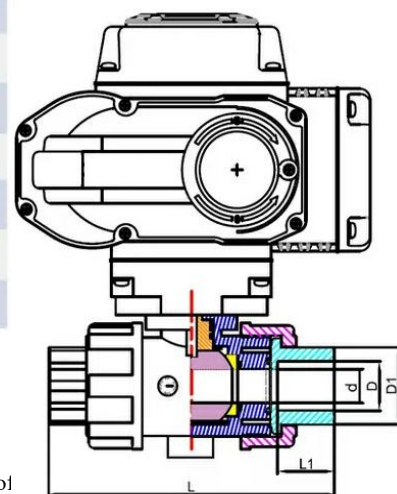
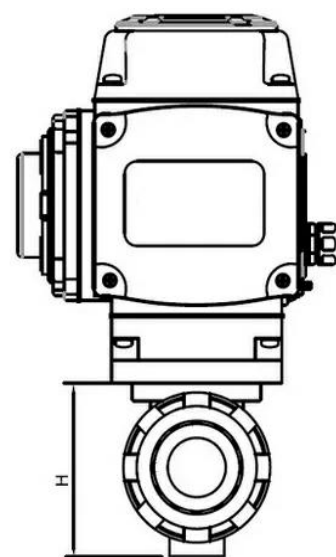
Body		Valve components	
Nominal size	1/2"~4", DN15~DN100	Seat material	NBR: -5°C~80°C, EPDM: -5°C~120°C, PTFE: -30°C~180°C
Body material	Plastic, PVC, UPVC	Core material	Plastic, PVC, UPVC
Connection type	Double Union	Stem material	SS416
Pressure Rating	0~1.6MPa	Applicable medium	Control of Water, Air, Gas, Oil, Liquid
Structure type	2 Way		

## Outline Size drawing

UNIT: mm									
MEDLE	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80	DN100
G	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	4"
d	14	20	25	30	38	50	63	78	100
D	20	25	32	40	50	63	75	90	110
D1	30	36	45	55	64	77	96	112	141
L1	22.8	25	28.5	32	34.8	39	46	48	64.5
L	121.8	134.5	150.2	166.8	179	205	233	257	309
H	61	74	90	104	121	146	169	220	255
Weight (Kg)	3.4	3.5	3.65	3.88	4.6	5.1	7.6	9.4	12.6
Actuator	FOSD-05			FOSD-10			FOSD-16		

## Installation Instruction

1. Verify that the valve breakaway torque is less than the rated output torque of the actuator.
2. Any mechanical stops that would interfere with the operation of the actuator must be removed before installation of the actuator, i.e. lever, travel stops, etc.
3. The actuator output coupling must be centered with the valve stem to prevent side loading, which causes premature stem packing wear.
4. To use the manual override feature (identified on cover label), the override shaft must be pressed down firmly at least 1/4" in order to disengage the motor from the gears. The manual override is not designed to overcome torque in excess of the rated torque of the actuator. Serious damage to the gear system may result from excessive turning force on the manual override.
5. This Series actuator may be mounted in any position, i.e. horizontal, upside down. If the conduit entrance points upward, conduit piping must be oriented as to prevent condensation from entering the actuator from the conduit pipe.





## Introduction

Electric plastic true union valve is union connection, and it is characterized by compact structure, strong corrosion resistance, easy installation, easy maintenance. UPVC 3 way, L port or T port ball valve, with on off electric actuator, PTFE seat, EPDM seals, vacuum to 10bar pressure range. Commonly used in the aquaculture industry (sea water), chemical dosing, water treatment and pool filtration.

## Electric Actuator

ON-OFF type	Feedback: the active signal, passive contact signal, resistance, 4-20mA
Regulation type	Input and output signal: 4-20mA, 0-10v, 1-5v, switch, MODBUS, PROFIBUS field bus
Filed operation	The field, remote control switch regulation and MODBUS, PROFIBUS field bus
Voltage Option	AC110-240VAC 380V 50/60Hz; 24VAC,DC12V, DC24V ; Special voltage can be customized.
Protection Clase	IP65, Explosion Proof Constrution Are Available: EX d II BT4

## Technical Parameters

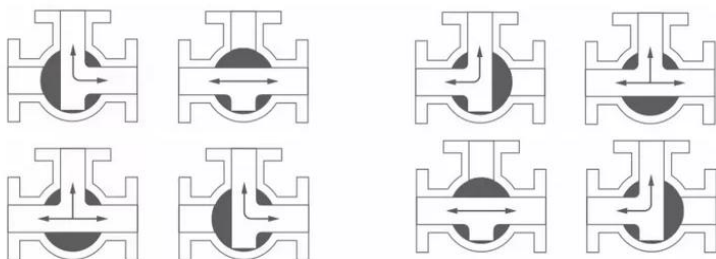
Body		Valve components	
Nominal size	1/2"~2", DN15~DN50	Seat material	NBR: -5°C~80°C, EPDM: -5°C~120°C, PTFE: -30°C~180°C
Body material	Plastic, PVC, UPVC	Core material	Plastic, PVC, UPVC
Connection type	Double Union	Stem material	SS416
Pressure Rating	0~1.6MPa	Applicable medium	Control of Water, Air, Gas, Oil, Liquid
Structure type	3 Way (L port or T port )		

## Outline Size drawing

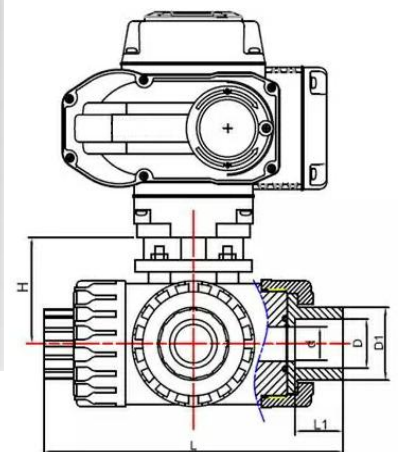
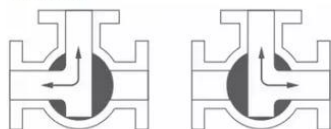
	DN15	DN20	DN25	DN32	DN40	DN50
G	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
d	14	20	25	30	38	50
D	20	25	32	40	50	63
D1	30	36	45	55	64	77
L1	22.8	25	28.5	32	34.8	39
L	163	172	200	208	240	246
H	79	79	82	82	110	110
Weight (Kg)	4.2	4.3	4.9	5.1	7.7	8.1

Flow Diagram

T Pattern



L Pattern



## Introduction

Two way sanitary ball valve, electric actuation. 316 stainless steel body, graphite filled PTFE seats, FKM backing ring, live loaded packing and anti static device. ISO5211 mounting pad allowing direct coupling of actuation. Great for fuel applications, pipelines, water treatment and general industry.

## Electric Actuator

ON-OFF type	Feedback: the active signal, passive contact signal, resistance, 4-20mA
Regulation type	Input and output signal: 4-20mA, 0-10v, 1-5v, switch, MODBUS, PROFIBUS field bus
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Protection Clase	IP65, Explosion Proof Constrution Are Available: EX d II BT4

## Technical Parameters

Body		Valve components	
Nominal size	DN15 to DN100, 1/2" to 4"	Seat material	PTFE: -30°C~180°C PPL: -30°C~250°C,
Body material	SS304 SS316 SS316L	Core material	SS304 SS316 SS316L
Connection type	Tri Clamp/Thread/Butt Welded	Stem material	Stainless Steel
Pressure Rating	0 to 1.6MPa	Applicable medium	Food & Beverage, Water & Wastewater, Ultra Pure Water, Desalination,
Structure type	2 Way (Floating Ball Core)		

## Outline Size drawing

Size	Ø19	Ø25	Ø32	Ø38	Ø51	Ø63	Ø76	Ø89	Ø102
DN	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80	DN100
d	16	21	29	35	47	59	72	85	97
D	50.5	50.5	50.5	50.5	64	77.5	91	106	119
L	102	117	123	140	180	200	220	235	275
Actuator	FOSD-05					FOSD-16		FOSD-30	
Weight (Kg)	3.8	3.9	3.95	4.3	5.1	7.3	8.8	11.4	13.5

## Installation Instruction

1. Verify that the valve breakaway torque is less than the rated output torque of the actuator.
2. Any mechanical stops that would interfere with the operation of the actuator must be removed before installation of the actuator, i.e. lever, travel stops, etc.
3. The actuator output coupling must be centered with the valve stem to prevent side loading, which causes premature stem packing wear.
4. To use the manual override feature (identified on cover label), the override shaft must be pressed down firmly at least 1/4" in order to disengage the motor from the gears. The manual override is not designed to overcome torque in excess of the rated torque of the actuator. Serious damage to the gear system may result from excessive turning force on the manual override.
5. This Series actuator may be mounted in any position, i.e. horizontal, upside down. If the conduit entrance points upward, conduit piping must be oriented as to prevent condensation from entering the actuator from the conduit pipe.





### Introduction

Three way sanitary ball valve, electric actuation. 316 stainless steel body, graphite filled PTFE seats, FKM backing ring, live loaded packing and anti static device. ISO5211 mounting pad allowing direct coupling of actuation. Great for fuel applications, pipelines, water treatment and general industry.

### Electric Actuator

ON-OFF type	Feedback: the active signal, passive contact signal, resistance, 4-20mA
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### Technical Parameters

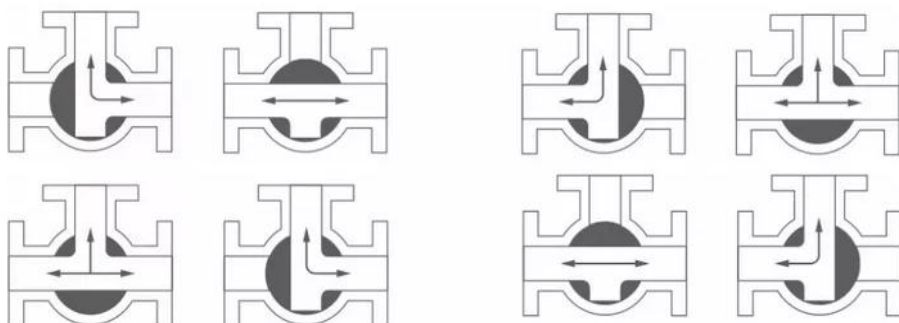
Body		Valve components	
Nominal size	DN15 to DN100, 1/2" to 4"	Seat material	PTFE: -30°C~180°C PPL: -30°C~250°C,
Body material	SS304 SS316 SS316L	Core material	SS304 SS316 SS316L
Connection type	Tri Clamp/Thread/Butt Welded	Stem material	Stainless Steel
Pressure Rating	0 to 1.6MPa	Applicable medium	Control of Water, Air, Gas, Oil, Liquid, Steam
Structure type	3 Way (T type or L type)		

### Outline Size drawing

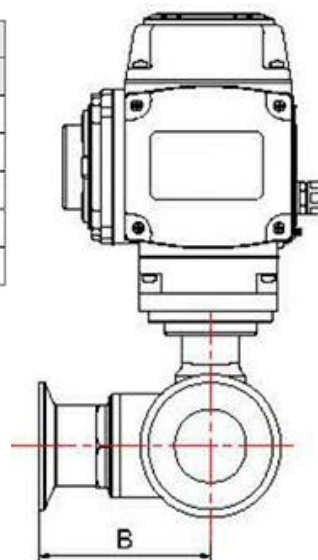
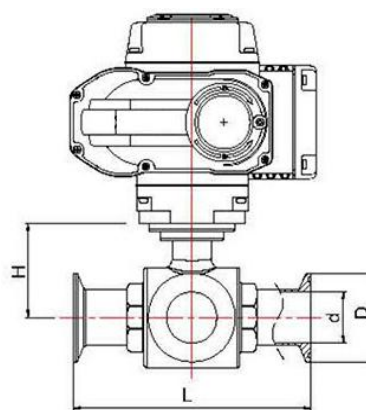
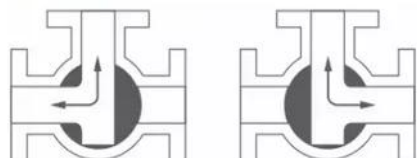
Size	1/2"	3/4"	1"	1-1/4"	1-1/2"	1-3/4"	2"	2-1/4"	2-1/2"	3"	3-1/2"	4"
	Ø12.7	Ø19	Ø25	Ø32	Ø38	Ø45	Ø51	Ø57	Ø63	Ø76	Ø89	Ø102
Ø	16	19.05	25.4	31.8	38.1	45	50.8	57	63.5	76.5	89.1	101.6
d		16	22	29	35	42	48	53	59	72	85	97
D	25.4	50.5	50.5	50.5	50.5	64	64	77.5	77.5	91	106	119
L	75	103	116	122.5	136	146	161	170	178	200	210	249
H	27	38	46.5	49	53.5	58	68	60	68.5	78	89.5	103.5

### Flow Diagram

#### T Pattern



#### L Pattern



## Introduction

FOLSD Electric Italy Wafer Type ball valve is characterized by thin, light weight, easy install. It is soft seal with compact structure, good sealing, easy operation. Depending on different mediums, such as water, steam, oil, the thin ball valve are made of different material. It is widely used in paper making, petroleum, chemistry, metallurgy, air-condition, fire protection, water supply, and industrial automation and so on.

## Electric Actuator

ON-OFF type	Feedback: the active signal, passive contact signal, resistance, 4-20mA
Regulation type	Input and output signal: 4-20mA, 0-10v, 1-5v, switch, MODBUS, PROFIBUS field bus
Filed operation	The field, remote control switch regulation and MODBUS, PROFIBUS field bus
Voltage Option	AC110-240VAC 380V 50/60Hz; 24VAC,DC12V, DC24V ; Special voltage can be customized.
Protection Clase	IP65, Explosion Proof Constrution Are Available: EX d II BT4

## Technical Parameters

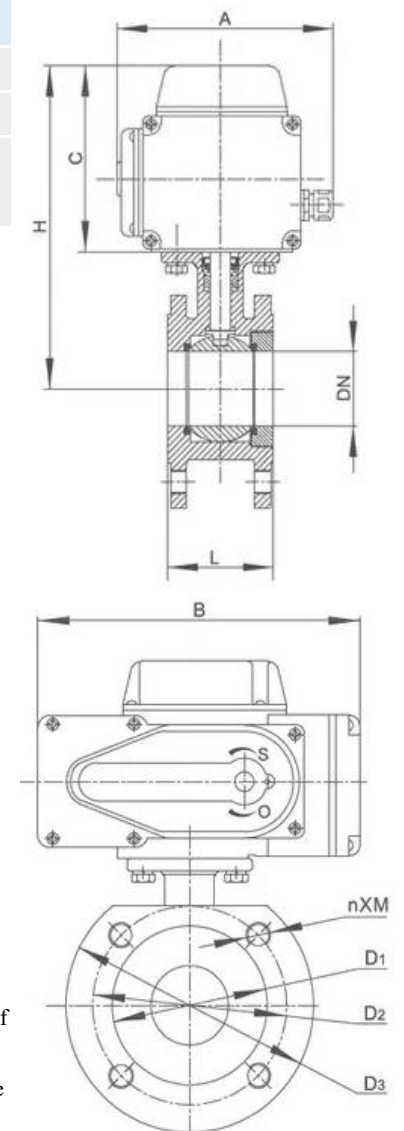
Body		Valve components	
Nominal size	1/2"~4", DN15~DN100	Seat material	PTFE: -30°C~180°C PPL: -30°C~250°C,
Body material	WCB SS304 SS316 SS316L	Core material	WCB SS304 SS316
Connection type	Wafer (Italy)	Stem material	Stainless Steel
Pressure Rating	1.6, 2.5, 4.0, 6.4MPa	Applicable medium	Water, Liquids, Gas, Oil, Powder, Steam, Acid-base Corrosive Medium.
Structure type	2 Way (Floating ball core)		

## Outine Size drawing

SIZE	Item	Nominal pressure	A	B	C	H	L	D <sub>1</sub>	D <sub>2</sub>	D <sub>3</sub>	nXM
DN20	FOSD-05	1.6MPa	137	160	103	162	38	55	75	105	4XM12
DN25	FOSD-05		137	160	103	167	42	65	85	115	4XM12
DN32	FOSD-05		137	160	103	180	50	78	100	135	4XM16
DN40	FOSD-05		137	160	103	187	62	85	110	145	4XM16
DN50	FOSD-10		145	208	124	216	72	100	125	160	4XM16
DN65	FOSD-10		170	258	148	248	95	120	145	180	4XM16
DN80	FOSD-16		170	258	148	267	118	135	160	195	8XM16
DN100			170	258	148	280	140	155	180	215	8XM16
DN125			148	258	148	305	195	185	210	245	8XM16
			184	280	159	316	195	185	210	245	8XM16
DN150			148	208	159	375	225	210	240	280	8XM20

## Installation Instruction

1. Verify that the valve breakaway torque is less than the rated output torque of the actuator.
2. Any mechanical stops that would interfere with the operation of the actuator must be removed before installation of the actuator, i.e. lever, travel stops, etc.
3. The actuator output coupling must be centered with the valve stem to prevent side loading, which causes premature stem packing wear.
4. To use the manual override feature (identified on cover label), the override shaft must be pressed down firmly at least 1/4" in order to disengage the motor from the gears. The manual override is not designed to overcome torque in excess of the rated torque of the actuator. Serious damage to the gear system may result from excessive turning force on the manual override.
5. This Series actuator may be mounted in any position, i.e. horizontal, upside down. If the conduit entrance points upward, conduit piping must be oriented as to prevent condensation from entering the actuator from the conduit pipe.



## Introduction

Electric High Pressure ball valve  
10 bar - 500bar (option)  
2 way or 3 way (option)

## Electric Actuator

ON-OFF type	Feedback: the active signal, passive contact signal, resistance, 4-20mA
Regulation type	Input and output signal: 4-20mA, 0-10v, 1-5v, switch, MODBUS, PROFIBUS field bus
Filed operation	The field, remote control switch regulation and MODBUS, PROFIBUS field bus
Voltage Option	AC110-240VAC 380V 50/60Hz; 24VAC,DC12V, DC24V ; Special voltage can be customized.
Protection Clase	IP65, Explosion Proof Constrution Are Available: EX d II BT4

## Technical Parameters

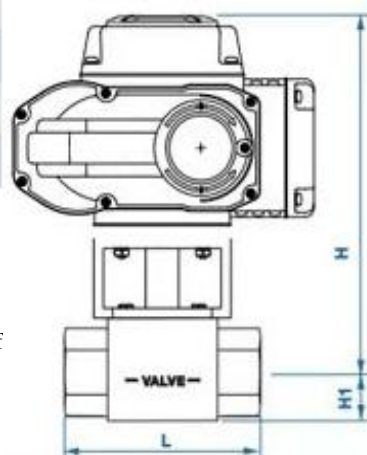
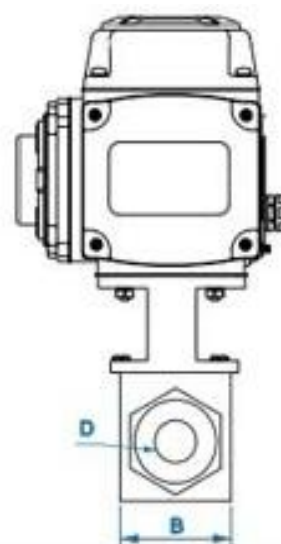
Body		Valve components	
Nominal size	1/2"~2", DN15~DN50	Seat material	EPDM: -5°C~120°C, PTFE: -30°C~180°C
Body material	WCB, SS304, SS316	Core material	Stainless Steel 304/316
Connection type	Thread end , Welding end	Stem material	Stainless Steel
Pressure Rating	10 bar - 500bar	Applicable medium	Control of Water, Air, Gas, Oil, Liquid, Steam
Structure type	2 Way or 3 Way		

## Outline Size drawing

MEDLE	DN08	DN10	DN15	DN20	DN25	DN32	DN40	DN50
G	1/4"	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
D	6	8	10	14,6	19,6	24,8	30	39,6
B	33	35	37	45	55	88	102	113
L	69	72	83	95	113	120	131	142
H	13	16	18	24	32	38	42	50
H1	176	176	176	237	237	249	285	348

## Installation Instruction

1. Verify that the valve breakaway torque is less than the rated output torque of the actuator.
2. Any mechanical stops that would interfere with the operation of the actuator must be removed before installation of the actuator, i.e. lever, travel stops, etc.
3. The actuator output coupling must be centered with the valve stem to prevent side loading, which causes premature stem packing wear.
4. To use the manual override feature (identified on cover label), the override shaft must be pressed down firmly at least 1/4" in order to disengage the motor from the gears. The manual override is not designed to overcome torque in excess of the rated torque of the actuator. Serious damage to the gear system may result from excessive turning force on the manual override.
5. This Series actuator may be mounted in any position, i.e. horizontal, upside down. If the conduit entrance points upward, conduit piping must be oriented as to prevent condensation from entering the actuator from the conduit pipe.





## Introduction

The electric soft seal butterfly valve is characterized by simple structure, small volume, light weight. The butterfly valve is full open or closed when the disc is rotated a quarter turn with good flow control characteristic. It's very small pressure from the disc when the butterfly valve is in full open position. They are widely used in water supply, fire protection, air condition, environmental protection, food, light industry, electrical, petroleum, papermaking and so on.

## Features

1. Butterfly valve with electric actuator with long service life and good sealing performance
2. NBR, EPDM, VITON and PTFE seals are available
3. Manual override and PLC control are available.
4. Size range: 2" to 16" (2", 2.5", 3", 4", 5", 6", 8", 10", 12", 16")

## Electric Actuator

ON-OFF type	Feedback: the active signal, passive contact signal, resistance, 4-20mA
Regulation type	Input and output signal: 4-20mA, 0-10v, 1-5v, switch, MODBUS, PROFIBUS field bus
Filed operation	The field, remote control switch regulation and MODBUS, PROFIBUS field bus
Voltage Option	AC110-240VAC 380V 50/60Hz; 24VAC,DC12V, DC24V ; Special voltage can be customized.
Protection Clase	IP65, Explosion Proof Constrution Are Available: EX d II BT4

## Technical Parameters

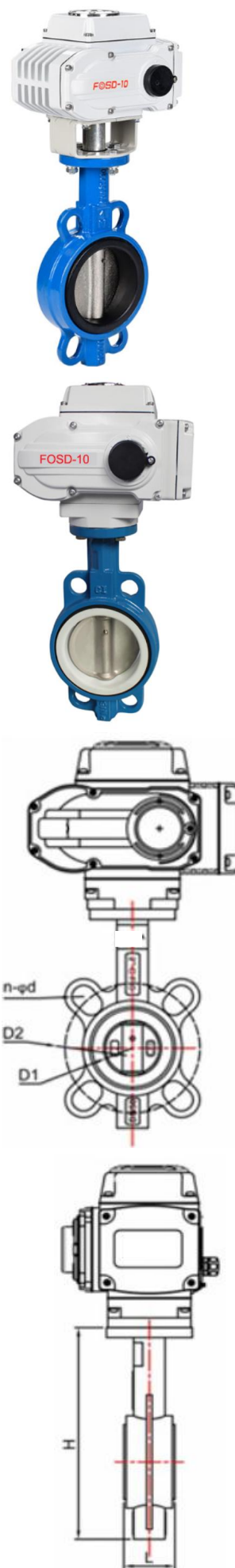
Body		Valve components	
Nominal size	2"~20", DN50~DN500	Seat material	NBR, EPDM, PTFE, VITON
Body material	Ductile cast iron/SS304/SS316	Disc material	Ductile cast iron/SS304/SS316
Connection type	Wafer (GB/ANSI/DIN/JIS)	Stem material	Stainless Steel
Pressure Rating	10 / 16 bar (145 / 232 psi)	Applicable medium	Water, Liquids, Gas, Oil, Powder, Steam, Acid-base Corrosive Medium.
Structure type	2 Way		

## Outine Size drawing

MEDLE	DN50	DN65	DN80	DN100	DN125	DN150	DN200	DN250	DN300	DN350	DN400	DN500
Inch	2"	2-1/2"	3"	4"	5"	6"	8"	10"	12"	14"	16"	20"
D	52.7	64.4	78.8	104.2	123.3	157	202.5	250.5	301.6	333.3	389.6	491.6
D1	89	104	127	153	180	206	270	320	368	428	482	605
D2	125	145	160	180	210	240	295	355	410	470	525	585
L	41	43	45	50	54	54	60	66	75.5	86.5	86.5	131.8
H	207	219	232	262	265	296	353	390	460	508	597	677
n-φd	4-φ18	4-φ18	4-φ18	4-φ18	4-φ18	4-φ23	4-φ23	4-φ23	4-φ26	4-φ26	4-φ26	4-φ30
Weight (Kg)	5.2	5.6	7.2	8.9	10.3	11.7	18.8	24.8	30.5			
Actuator	F0SD-05	F0SD-05	F0SD-05	F0SD-10	F0SD-10	F0SD-16	F0SD-30	F0SD-30	F0SD-60	F0SD-60	F0SD-125	F0SD-250

## Installation Instruction

1. Verify that the valve breakaway torque is less than the rated output torque of the actuator.
2. Any mechanical stops that would interfere with the operation of the actuator must be removed before installation of the actuator, i.e. lever, travel stops, etc.
3. The actuator output coupling must be centered with the valve stem to prevent side loading, which causes premature stem packing wear.
4. To use the manual override feature (identified on cover label), the override shaft must be pressed down firmly at least 1/4" in order to disengage the motor from the gears. The manual override is not designed to overcome torque in excess of the rated torque of the actuator. Serious damage to the gear system may result from excessive turning force on the manual override.
5. This Series actuator may be mounted in any position, i.e. horizontal, upside down. If the conduit entrance points upward, conduit piping must be oriented as to prevent condensation from entering the actuator from the conduit pipe.



## Introduction

This wafer type butterfly valve is for chemical industry. Adopt PTFE as the seal and disc which has a powerful ability of anti-corrosion. Suitable for acid, alkali, and other media flow control. Disc plate with frame structure, high strength, flow area, flow resistance. The valve with more and more tightly sealed off function, a reliable sealing performance.

## Features

1. Torque range is 50Nm(442 in-lb) to 2500Nm(22123 in-lb).
2. It could be equipped with on off type actuator, modulating type actuator and intelligent type actuator
3. Easy automation/Retrofit possible/Safe operation
4. Steam lined valve disc ensures lower pressure drop
5. Size range from 2 inch to 16 inch, size ia available to custom

## Electric Actuator

ON-OFF type	Feedback: the active signal, passive contact signal, resistance, 4-20mA
Regulation type	Input and output signal: 4-20mA, 0-10v, 1-5v, switch, MODBUS, PROFIBUS field bus
Filed operation	The field, remote control switch regulation and MODBUS, PROFIBUS field bus
Voltage Option	AC110-240VAC 380V 50/60Hz; 24VAC,DC12V, DC24V ; Special voltage can be customized.
Protection Clase	IP65, Explosion Proof Constrution Are Available: EX d II BT4

## Technical Parameters

Body		Valve components	
Nominal size	2"~16", DN50~DN400	Sealing material	PTFE
Body material	Cast Iron/WCB/SS304/SS316	Disc material	PTFE
Connection type	Wafer (GB/ANSI/DIN)	Feature	Acid and alkali resistant
Pressure Rating	1.0 / 1.6 MPa (10 / 16 bar)	Applicable medium	Water, Air, Gas, Petroleum, Oil, Liquid
Structure type	Midline structure A type		

## Outine Size drawing

MEDLE	DN50	DN65	DN80	DN100	DN125	DN150	DN200	DN250	DN300	DN350	DN400	DN500
Inch	2"	2-1/2"	3"	4"	5"	6"	8"	10"	12"	14"	16"	20"
D	52.7	64.4	78.8	104.2	123.3	157	202.5	250.5	301.6	333.3	389.6	491.6
D1	89	104	127	153	180	206	270	320	368	428	482	605
D2	125	145	160	180	210	240	295	355	410	470	525	585
L	41	43	45	50	54	54	60	66	75.5	86.5	86.5	131.8
H	207	219	232	262	265	296	353	390	460	508	597	677
n-φd	4-φ18	4-φ18	4-φ18	4-φ18	4-φ18	4-φ23	4-φ23	4-φ23	4-φ26	4-φ26	4-φ26	4-φ30
Weight (Kg)	5.2	5.6	7.2	8.9	10.3	11.7	18.8	24.8	30.5			
Actuator	F0SD-05	F0SD-05	F0SD-05	F0SD-10	F0SD-10	F0SD-16	F0SD-30	F0SD-30	F0SD-60	F0SD-60	F0SD-125	F0SD-250

## Installation Instruction

1. Verify that the valve breakaway torque is less than the rated output torque of the actuator.
2. Any mechanical stops that would interfere with the operation of the actuator must be removed before installation of the actuator, i.e. lever, travel stops, etc.
3. The actuator output coupling must be centered with the valve stem to prevent side loading, which causes premature stem packing wear.
4. To use the manual override feature (identified on cover label), the override shaft must be pressed down firmly at least 1/4" in order to disengage the motor from the gears. The manual override is not designed to overcome torque in excess of the rated torque of the actuator. Serious damage to the gear system may result from excessive turning force on the manual override.
5. This Series actuator may be mounted in any position, i.e. horizontal, upside down. If the conduit entrance points upward, conduit piping must be oriented as to prevent condensation from entering the actuator from the conduit pipe.



## Introduction

The electric flange butterfly valve is characterized by simple structure, small volume, light weight. The butterfly valve is full open or closed when the disc is rotated a quarter turn with good flow control characteristic. It's very small pressure from the disc when the butterfly valve is in full open position. They are widely used in water supply, fire protection, air condition, environmental protection, food, light industry, electrical, petroleum, papermaking and

## Features

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

## Electric Actuator

ON-OFF type	Feedback: the active signal, passive contact signal, resistance, 4-20mA
Regulation type	Input and output signal: 4-20mA, 0-10v, 1-5v, switch, MODBUS, PROFIBUS field bus
Filed operation	The field, remote control switch regulation and MODBUS, PROFIBUS field bus
Voltage Option	AC110-240VAC 380V 50/60Hz; 24VAC,DC12V, DC24V ; Special voltage can be customized.
Protection Clase	IP65, Explosion Proof Construction Are Available: EX d II BT4

## Technical Parameters

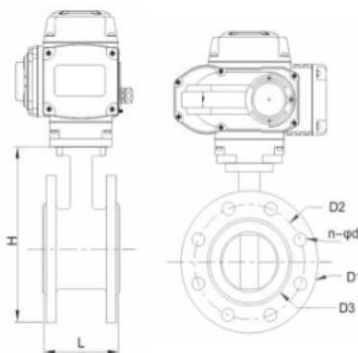
Body		Valve components	
Nominal size	2"~20", DN50~DN500	Seat material	PTFE, EPDM, NBR
Body material	Cast Iron/WCB/SS304/SS316	Disc material	Cast Iron/WCB/SS304/SS316
Connection type	Flange (GB/ANSI/DIN)	Stem material	Stainless Steel
Pressure Rating	1.0 / 1.6 MPa (10 / 16 bar)	Applicable medium	Water, Air, Gas, Petroleum, Oil, Liquid
Structure type	Midline structure A type		

## Outline Size drawing

MEDLE	DN50	DN65	DN80	DN100	DN125	DN150	DN200	DN250	DN300	DN350	DN400	DN500
Inch	2"	2-1/2"	3"	4"	5"	6"	8"	10"	12"	14"	16"	20"
D	52.7	64.4	83	104.2	123.3	157	202.5	250.5	301.6	333.3	389.6	491.6
D1	165	185	200	220	250	285	340	395	445	505	565	670
D2	125	145	160	180	210	240	295	355	410	470	525	620
D3	99	118	132	156	184	211	266	319	370	429	480	582
L	108	112	114	127	140	140	150	165	185	195	216	229
H	192	207	224	255	290	325	386	460	510	565	632	759
n-φd	4-φ18	4-φ18	8-φ18	8-φ18	8-φ18	8-φ22	8-φ22	12-φ22	12-φ22	16-φ22	16-φ26	20-φ26

## Installation Instruction

1. Verify that the valve breakaway torque is less than the rated output torque of the actuator.
2. Any mechanical stops that would interfere with the operation of the actuator must be removed before installation of the actuator, i.e. lever, travel stops, etc.
3. The actuator output coupling must be centered with the valve stem to prevent side loading, which causes premature stem packing wear.
4. To use the manual override feature (identified on cover label), the override shaft must be pressed down firmly at least 1/4" in order to disengage the motor from the gears. The manual override is not designed to overcome torque in excess of the rated torque of the actuator. Serious damage to the gear system may result from excessive turning force on the manual override.
5. This Series actuator may be mounted in any position, i.e. horizontal, upside down. If the conduit entrance points upward, conduit piping must be oriented as to prevent condensation from entering the actuator from the conduit pipe.





## Introduction

Hard seal electric butterfly valve also knows hard seal or tri eccentric electric butterfly valve. If the stem axis deviates from the disc center and the body center at the same time, and the rotation axis of the valve seat has a certain angle with the channel axis of the valve body, it is called three eccentric butterfly valve.

This Series butterfly valve is triple off-set design which has advantage of light weight, compact design and cost effective, low operation torque and can replace traditional gate valve, globe & ball valve in most of industries application

## Electric Actuator

ON-OFF type	Feedback: the active signal, passive contact signal, resistance, 4-20mA
Regulation type	Input and output signal: 4-20mA, 0-10v, 1-5v, switch, MODBUS, PROFIBUS field bus
Filed operation	The field, remote control switch regulation and MODBUS, PROFIBUS field bus
Voltage Option	AC110-240VAC 380V 50/60Hz; 24VAC,DC12V, DC24V ; Special voltage can be customized.
Protection Clase	IP65, Explosion Proof Constrution Are Available: EX d II BT4

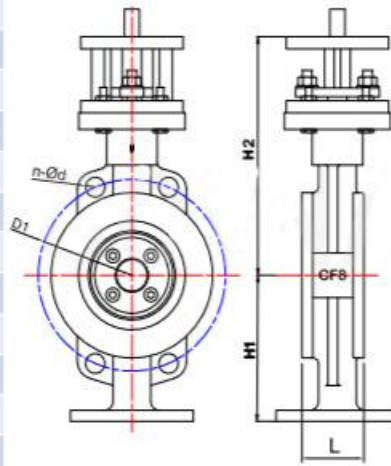
## Technical Parameters

Body		Valve components	
Nominal size	2"-20", DN50~DN500	Seat material	WCB/SS304/SS316
Body material	WCB/SS304/SS316	Disc material	WCB/SS304/SS316
Connection type	Wafer (GB/ANSI/DIN/JIS)	Stem material	Stainless Steel
Pressure Rating	1.0, 2.5MPa	Applicable medium	Water, oil, Gas, Liquid, steam, powder, anti-corrosive base
Structure type	2 Way		

## Outine Size drawing

UNIT: mm

DN	D1	n-φd	L	H1	H2
DN50	125	4-Ø18	43	80	
DN65	145	4-Ø18	46	90	
DN80	160	4-Ø18	49	98	
DN100	180	8-Ø18	56	112	
DN125	210	8-Ø18	64	128	
DN150	240	8-Ø18	70	147	
DN200	295	8-Ø23	71	178	
DN250	355	8-Ø23	76	215	
DN300	410	12-Ø26	78	250	
DN350	470	12-Ø26	78	280	
DN400	525	12-Ø26	102	320	
DN450	585	16-Ø30	114	350	
DN500	650	20-Ø30	127	380	
DN600	770	20-Ø36	154	440	



## Tri-eccentric Motorized Butterfly Valve

1. Three eccentric butterfly valve is widely used in metallurgy, electric power, petrochemical industry, water supply and drainage, municipal construction and other industrial pipelines with medium temperature  $\leq 425^{\circ}\text{C}$
2. Double security structure: tritec design standard accords with API609, BS5155 ANSI B 16.34 、 ASME SEC VIII.
3. For regulating flow and breaking fluid. Material: cast iron, cast steel, stainless steel
4. Non-blind area design: there is almost no friction between butterfly plate and valve seat
5. Thin layer valve seat structure, Replaceable seal pair, Balanced fixed structure
6. Body seat construction, install the valve seat on the body



## Introduction

FOLS stainless steel metal seal trieccentric flange motorized butterfly valve are used to control the flow of a media remotely. The actuator either opens or closes the valve with an electrical current. The butterfly valve has a disc that rotates with the actuator to open or close the butterfly valve. There are various seals and sizes of electrically controlled butterfly valves to allow you to find the right one for your application.

Electric flanged metal seal butterfly valve use J-shaped elastic seal ring and metal seal structure, 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.

## Features

- 1.The electric butterfly valve design allows for good sealing properties, durability, and reliability for your application
- 2.This type of valve is ideally suited to large valve types or remote fluid control applications
- 3.Excellent control performance, easy handling and installation
- 4.Improved manufacturing process and better productivity
- 5.This valve can be Customized to Meet Specific Application Needs

## Electric Actuator

ON-OFF type	Feedback: the active signal, passive contact signal, resistance, 4-20mA
Regulation type	Input and output signal: 4-20mA, 0-10v, 1-5v, switch, MODBUS, PROFIBUS field bus
Filed operation	The field, remote control switch regulation and MODBUS, PROFIBUS field bus
Voltage Option	AC110-240VAC 380V 50/60Hz; 24VAC,DC12V, DC24V ; Special voltage can be customized.
Protection Clase	IP65, Explosion Proof Constrution Are Available: EX d II BT4

## Technical Parameters

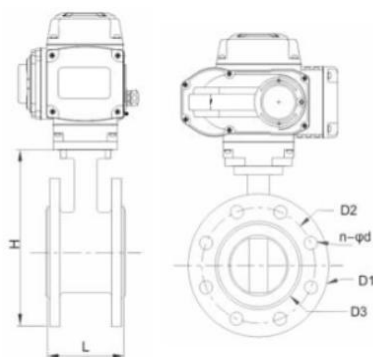
Body		Valve components	
Nominal size	2"~20", DN50~DN500	Seat material	WCB/SS304/SS316
Body material	WCB/SS304/SS316	Disc material	WCB/SS304/SS316
Connection type	Flange (GB/ANSI/DIN/JIS)	Stem material	Stainless Steel
Pressure Rating	1.0, 2.5MPa	Applicable medium	Water, oil, Gas, Liquid, steam, powder, anti-corrosive base
Structure type	Midline structure A type		

## Outline Size drawing

MEDLE	DN50	DN65	DN80	DN100	DN125	DN150	DN200	DN250	DN300	DN350	DN400	DN500
Inch	2"	2-1/2"	3"	4"	5"	6"	8"	10"	12"	14"	16"	20"
D	52.7	64.4	83	104.2	123.3	157	202.5	250.5	301.6	333.3	389.6	491.6
D1	165	185	200	220	250	285	340	395	445	505	565	670
D2	125	145	160	180	210	240	295	355	410	470	525	620
D3	99	118	132	156	184	211	266	319	370	429	480	582
L	108	112	114	127	140	140	150	165	185	195	216	229
H	192	207	224	255	290	325	386	460	510	565	632	759
n-φd	4-φ18	4-φ18	8-φ18	8-φ18	8-φ18	8-φ22	8-φ22	12-φ22	12-φ22	16-φ22	16-φ26	20-φ26

## Tri-eccentric Motorized Butterfly Valve

1. Three eccentric butterfly valve is widely used in metallurgy, electric power, petrochemical industry, water supply and drainage, municipal construction and other industrial pipelines with medium temperature  $\leq 425^{\circ}\text{C}$
2. Double security structure: tritec design standard accords with API609, BS5155 ANSI B 16.34 、 ASME SEC VIII
3. For regulating flow and breaking fluid. Material: cast iron, cast steel, stainless steel
4. Non-blind area design: there is almost no friction between butterfly plate and valve seat
5. Thin layer valve seat structure, Replaceable seal pair, Balanced fixed structure
- 6.Body seat construction, install the valve seat on the body



## Introduction

Electric butterfly valve is mainly used for powder material hopper and a switch box, powdery or granular materials is the silo. Can be applied to all powdery and granular materials, using gravity closure material valve and pneumatic transmission. Dry materials can be installed in the hopper bins, silos, below or other types of spiral conveyor, and connected with the pneumatic conveying pipeline. Because of the special structure of the valve and the use of engineering materials, it is always a very economical and efficient choice.

## Features

1. Electric powder butterfly valve by two by gravity casting into half body composition
2. Half body Aluminum Alloy material, rotary valve plate is made of high polymer materials, has good sealing.
3. The top and bottom flange of the same circle, with a top flange and a flange member for a the root of the flexible casing.

## Electric Actuator

ON-OFF type	Feedback: the active signal, passive contact signal, resistance, 4-20mA
Regulation type	Input and output signal: 4-20mA, 0-10v, 1-5v, switch, MODBUS, PROFIBUS field bus
Filed operation	The field, remote control switch regulation and MODBUS, PROFIBUS field bus
Voltage Option	AC110-240VAC 380V 50/60Hz; 24VAC,DC12V, DC24V ; Special voltage can be customized.
Protection Clase	IP65, Explosion Proof Constrution Are Available: EX d II BT4

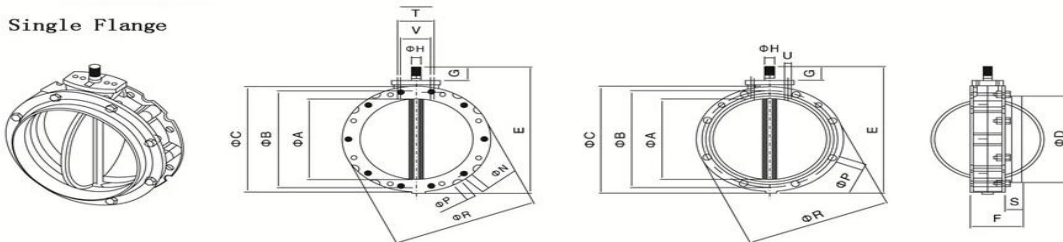


## Technical Parameters

Body		Valve components	
Nominal size	4"~16", DN100~DN400	Sealing material	Wear-resisting rubber
Body material	Cast aluminum alloy	Disc material	Cast aluminum alloy
Connection type	Flange	Stem Material	Stainless Steel
Pressure Rating	0.4 (MPa)	Applicable medium	concrete mixing station and dry powder
Structure type	Midline structure A type		

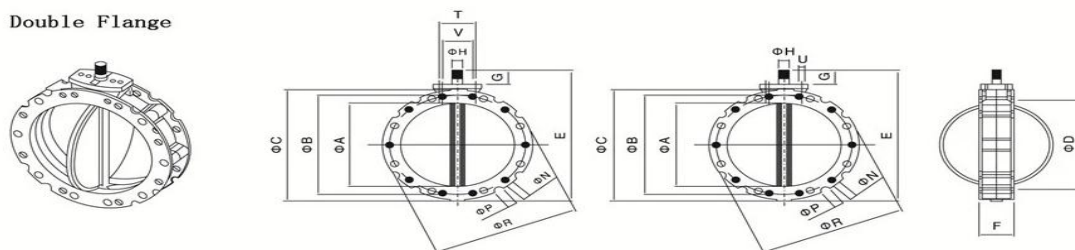
## Outline Size drawing

Single Flange



TYPE	ΦA	ΦB	ΦC	ΦD	E	F	G	ΦH	ΦH*No.	ΦP*No.	ΦR	S	T	U	V	Z	KG
1F100	95	180	220	105	250	115	35	22*19	14*4	20*4	220	40	80	M12	50	M10	4
1F150	150	200	228	163	290	115	35	22*19	14*4	20*4	228	40	80	M12	50	M10	5
1F200	200	250	278	213	340	115	35	22*19	14*4	20*4	278	40	80	M12	50	M10	6.5
1F250	250	300	328	263	390	115	35	22*19	14*8	20*8	328	40	80	M12	50	M10	7.5
1F300	300	350	378	313	440	115	35	22*19	14*8	20*16	378	40	80	M12	50	M10	9
1F350	350	400	440	363	530	123	50	28*25	14*8	20*8	440	40	80	M12	50	M10	16
1F400	400	470	530	413	580	123	50	28*25	14*8	20*16	530	40	80	M12	50	M10	20.5

Double Flange



TYPE	ΦA	ΦB	ΦC	ΦD	E	F	G	ΦH	ΦH*No.	ΦP*No.	ΦR	S	T	U	V	Z	KG
2F100	95	180	220		250	80	35	22*19	14*4	20*4	220		80	M12	50	M10	4
2F150	150	200	228		290	80	35	22*19	14*4	20*4	228		80	M12	50	M10	5
2F200	200	250	278		340	80	35	22*19	14*4	20*4	278		80	M12	50	M10	6.5
2F250	250	300	328		390	80	35	22*19	14*8	20*8	328		80	M12	50	M10	7.5
2F300	300	350	378		440	80	35	22*19	14*8	20*16	378		80	M12	50	M10	9
2F350	350	400	440		530	85	50	28*25	14*8	20*8	440		80	M12			16
2F400	400	470	530		580	85	50	28*25	14*8	20*16	530		80	M12			20.5



## Introduction

FOLS series electric sanitary butterfly valves have passed the sophisticated testing process and strict quality management. The circulation passed polishing and antibacterial treatment. With the seal EPDM or FPM, no dead ends and easy to clean. The actuator is easy to install with the valves and take up small space.

The sanitary butterfly valve was manufactured by standard electronic polishing, it is smooth, clean, compact structure, easy install and uninstall, and easy maintenance. Sanitary food grade electric actuator butterfly valve is very suitable for beer, milk, pure water, soft drink, etc. Widely used for food&beverages industry etc.

## Features

1. Novel design, reasonable, unique structure, light weight, quick opening and closing
2. The operating torque is small, the operation is convenient, and the labor-saving and dexterous
3. It can be installed in any position, easy maintenance
4. Sealing materials are resistant to aging, corrosion and long service life
5. Widely used in process control occasions such as food, pharmaceuticals, cosmetics, clean steam, alcohol, beverages, biochemical industrial processes

## Electric Actuator

ON-OFF type	Feedback: the active signal, passive contact signal, resistance, 4-20mA
Regulation type	Input and output signal: 4-20mA, 0-10v, 1-5v, switch, MODBUS, PROFIBUS field bus
Filed operation	The field, remote control switch regulation and MODBUS, PROFIBUS field bus
Voltage Option	AC110-240VAC 380V 50/60Hz; 24VAC,DC12V, DC24V ; Special voltage can be customized.
Protection Clase	IP65, Explosion Proof Constrution Are Available: EX d II BT4

## Technical Parameters

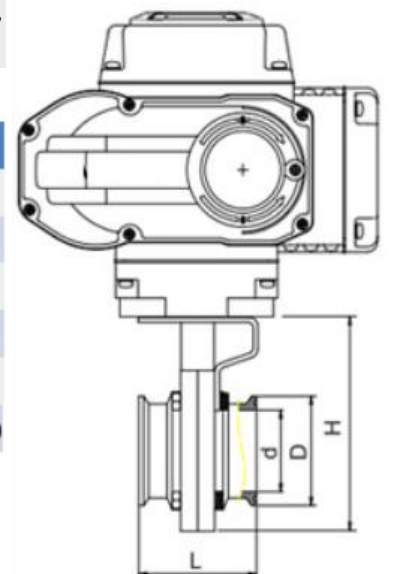
Body		Valve components	
Nominal size	2"~10", DN50~DN250	Sealing material	PTFE, Silicone
Body material	Stainless Steel 304/316	Disc material	Stainless Steel 304/316
Connection type	Tri-clamp	Stem Material	Stainless Steel
Pressure Rating	1.0 / 1.6 MPa (10 / 16 bar)	Applicable medium	Water, Air, Gas, Petroleum, Oil, Liquid
Structure type	Midline structure A type		

## Outline Size drawing

Size	Ø19	Ø25	Ø32	Ø38	Ø51	Ø63	Ø76	Ø89	Ø102
d	16	21	29	35	47	59	72	85	97
D	50.5	50.5	50.5	50.5	64	77.5	91	106	119
L	68	68	68	72	72	72	81	82.5	85
H	99	99	99	114	125	140	150	165	180
Weight (Kg)	2.78	2.78	2.78	3.28	4.28	5.08	6.18	9.08	10.5
Actuator	FOSD-05		FOSD-10		FOSD-16		FOSD-30		

## Installation Instruction

1. Verify that the valve breakaway torque is less than the rated output torque of the actuator.
2. Any mechanical stops that would interfere with the operation of the actuator must be removed before installation of the actuator, i.e. lever, travel stops, etc.
3. The actuator output coupling must be centered with the valve stem to prevent side loading, which causes premature stem packing wear.
4. To use the manual override feature (identified on cover label), the override shaft must be pressed down firmly at least 1/4" in order to disengage the motor from the gears. The manual override is not designed to overcome torque in excess of the rated torque of the actuator. Serious damage to the gear system may result from excessive turning force on the manual override.
5. This Series actuator may be mounted in any position, i.e. horizontal, upside down. If the conduit entrance points upward, conduit piping must be oriented as to prevent condensation from entering the actuator from the conduit pipe.



## Introduction

UPVC electric butterfly valve, light weight, corrosion resistance which is used in many fields, such as general water and raw piping systems, drainage and sewage piping systems, salt water and sea water piping system, pH and chemical solution system and other industries. The quality is approved the majority of users.

Electric plastic pvc butterfly valve minimum 2 inch lug connection, default NBR seat, suitable for most air, water, light oil, fuels, solvents, alcohol and many acids, EPDM seat is optional. Low Weight, Low Cost, Anti-Corrosive & Food Safe. Easy to operate and with a convenient modular design for gas or liquid piping system

## Features

1. Industrial grade PVC butterfly valve, Polypropylene (PP) disc
2. Pressure rated 150psi at 73°F. EPDM primary liner.
3. ANSI 150 wafer-style flange connection
4. Suitable for using with potable/drinking water
5. Quarter turn operation with mechanical stops

## Electric Actuator

ON-OFF type	Feedback: the active signal, passive contact signal, resistance, 4-20mA
Regulation type	Input and output signal: 4-20mA, 0-10v, 1-5v, switch, MODBUS, PROFIBUS field bus
Filed operation	The field, remote control switch regulation and MODBUS, PROFIBUS field bus
Voltage Option	AC110-240VAC 380V 50/60Hz; 24VAC,DC12V, DC24V ; Special voltage can be customized.
Protection Clase	IP65, Explosion Proof Constrution Are Available: EX d II BT4

## Technical Parameters

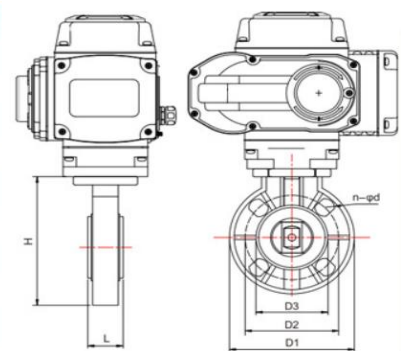
Body		Valve components	
Nominal size	2"~12", DN50~DN300	Sealing material	EPDM/FPM
Body material	UPVC	Disc material	UPVC
Connection type	Wafer (GB/ANSI/DIN/JIS)	Feature	Acid and alkali resistant
Pressure Rating	1.0 / 1.6 MPa (10 / 16 bar)	Applicable medium	Water, Air, Gas, Petroleum, Oil, Liquid
Structure type	Midline structure A type		

## Outine Size drawing

MEDLE	DN50	DN65	DN80	DN100	DN125	DN150	DN200	DN250	DN300	DN350	DN400	DN500
Inch	2"	2-1/2"	3"	4"	5"	6"	8"	10"	12"	14"	16"	20"
D	52.7	64.4	83	104.2	123.3	157	202.5	250.5	301.6	333.3	389.6	491.6
D1	165	185	200	220	250	285	340	395	445	505	565	670
D2	125	145	160	180	210	240	295	355	410	470	525	620
D3	99	118	132	156	184	211	266	319	370	429	480	582
L	108	112	114	127	140	140	150	165	185	195	216	229
H	192	207	224	255	290	325	386	460	510	565	632	759
n-φd	4-φ18	4-φ18	8-φ18	8-φ18	8-φ18	8-φ22	8-φ22	12-φ22	12-φ22	16-φ22	16-φ26	20-φ26
Weight (Kg)	4.48	4.48	5.28	7.38	7.78	9.02	10.48					

## Installation Instruction

1. Verify that the valve breakaway torque is less than the rated output torque of the actuator.
2. Any mechanical stops that would interfere with the operation of the actuator must be removed before installation of the actuator, i.e. lever, travel stops, etc.
3. The actuator output coupling must be centered with the valve stem to prevent side loading, which causes premature stem packing wear.
4. To use the manual override feature (identified on cover label), the override shaft must be pressed down firmly at least 1/4" in order to disengage the motor from the gears. The manual override is not designed to overcome torque in excess of the rated torque of the actuator. Serious damage to the gear system may result from excessive turning force on the manual override.
5. This Series actuator may be mounted in any position, i.e. horizontal, upside down. If the conduit entrance points upward, conduit piping must be oriented as to prevent condensation from entering the actuator from the conduit pipe.



## Introduction

The anti-corrosion fluorine lined butterfly valve adopts a two-piece valve body combination. When the valve seat and the valve body lining are integrated, only the all plastic valve seat and the plastic butterfly plate and the media joint product can withstand any medium corrosion except for the “molten alkali metal and element fluorine”. The inner surface of the valve body channel is smooth. The flow resistance is small, CV value is high, the flow capacity is strong, the support moment is moderate, and the elastic cushion seat with four-stage sI rubber is completely

## Features

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

## Electric Actuator

ON-OFF type	Feedback: the active signal, passive contact signal, resistance, 4-20mA
Regulation type	Input and output signal: 4-20mA, 0-10v, 1-5v, switch, MODBUS, PROFIBUS field bus
Filed operation	The field, remote control switch regulation and MODBUS, PROFIBUS field bus
Voltage Option	AC110-240VAC 380V 50/60Hz; 24VAC,DC12V, DC24V ; Special voltage can be customized.
Protection Clase	IP65, Explosion Proof Constrution Are Available: EX d II BT4

## Technical Parameters

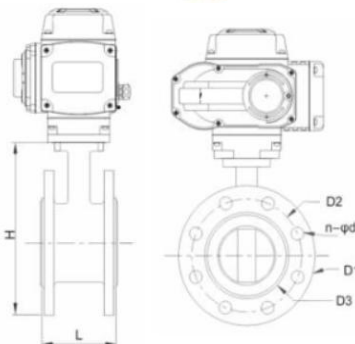
Body		Valve components	
Nominal size	2"~20", DN50~DN500	Sealing material	PTFE
Body material	Cast Iron/WCB/SS304/SS316	Disc material	PTFE
Connection type	Flange (GB/ANSI/DIN)	Feature	Acid and alkali resistant
Pressure Rating	1.0 / 1.6 MPa (10 / 16 bar)	Applicable medium	Water, Air, Gas, Petroleum, Oil, Liquid
Structure type	Midline structure A type		

## Outine Size drawing

MEDLE	DN50	DN65	DN80	DN100	DN125	DN150	DN200	DN250	DN300	DN350	DN400	DN500
Inch	2"	2-1/2"	3"	4"	5"	6"	8"	10"	12"	14"	16"	20"
D	52.7	64.4	83	104.2	123.3	157	202.5	250.5	301.6	333.3	389.6	491.6
D1	165	185	200	220	250	285	340	395	445	505	565	670
D2	125	145	160	180	210	240	295	355	410	470	525	620
D3	99	118	132	156	184	211	266	319	370	429	480	582
L	108	112	114	127	140	140	150	165	185	195	216	229
H	192	207	224	255	290	325	386	460	510	565	632	759
n-φd	4-φ18	4-φ18	8-φ18	8-φ18	8-φ18	8-φ22	8-φ22	12-φ22	12-φ22	16-φ22	16-φ26	20-φ26

## Installation Instruction

1. Verify that the valve breakaway torque is less than the rated output torque of the actuator.
2. Any mechanical stops that would interfere with the operation of the actuator must be removed before installation of the actuator, i.e. lever, travel stops, etc.
3. The actuator output coupling must be centered with the valve stem to prevent side loading, which causes premature stem packing wear.
4. To use the manual override feature (identified on cover label), the override shaft must be pressed down firmly at least 1/4" in order to disengage the motor from the gears. The manual override is not designed to overcome torque in excess of the rated torque of the actuator. Serious damage to the gear system may result from excessive turning force on the manual override.
5. This Series actuator may be mounted in any position, i.e. horizontal, upside down. If the conduit entrance points upward, conduit piping must be oriented as to prevent condensation from entering the actuator from the conduit pipe.





## Introduction

Electric Actuated Lug Type Butterfly Valve, standard on/off control, 4-20mA or 0-10VDC modulating control is available, cast iron or ductile iron body construction, optional 304 or 316 stainless steel, 220VAC standard voltage, minimum 2 inch lug connection, default NBR seat, suitable for most air, water, light oil, fuels, solvents, alcohol and many acids, EPDM or VITON is optional.

Widely used for different applications such as HVAC, water treatment and so on for flow control.

## Electric Actuator

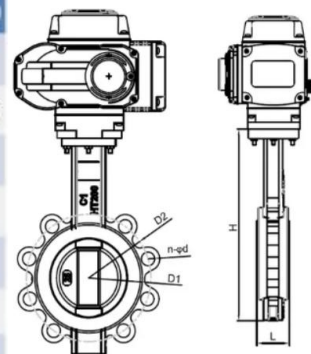
ON-OFF type	Feedback: the active signal, passive contact signal, resistance, 4-20mA
Regulation type	Input and output signal: 4-20mA, 0-10v, 1-5v, switch, MODBUS, PROFIBUS field bus
Filed operation	The field, remote control switch regulation and MODBUS, PROFIBUS field bus
Voltage Option	AC110-240VAC 380V 50/60Hz; 24VAC,DC12V, DC24V ; Special voltage can be customized.
Protection Clase	IP65, Explosion Proof Constrution Are Available: EX d II BT4

## Technical Parameters

Body		Valve components	
Nominal size	2"~20", DN50~DN500	Seat material	NBR, EPDM, PTFE, VITON
Body material	Ductile cast iron/SS304/SS316	Disc material	Ductile cast iron/SS304/SS316
Connection type	Lugged (GB/ANSI/DIN/JIS)	Stem material	Stainless Steel
Pressure Rating	10 / 16 bar (145 / 232 psi)	Applicable medium	Water, Liquids, Gas, Oil, Powder, Steam, Acid-base Corrosive Medium.
Structure type	Midline structure A type		

## Outline Size drawing

MEDLE	DN50	DN65	DN80	DN100	DN125	DN150	DN200	DN250	DN300	DN350	DN400	DN500
Inch	2"	2-1/2"	3"	4"	5"	6"	8"	10"	12"	14"	16"	20"
D	52.7	64.4	78.8	104.2	123.3	157	202.5	250.5	301.6	333.3	389.6	491.6
D1	89	104	127	153	180	206	270	320	368	428	482	605
D2	125	145	160	180	210	240	295	355	410	470	525	585
L	41.4	44	45	52	54	54	55	60	65	76	86	130
H	217	234	252	289	318	341	428	490	567			
n-φd	4-M16	4-M16	8-M16	8-M16	8-M16	8-M20	12-M20	12-M24	12-M24			
Actuator	FOSD-05	FOSD-05	FOSD-05	FOSD-10	FOSD-10	FOSD-16	FOSD-30	FOSD-30	FOSD-60			



## Installation Instruction

1. Verify that the valve breakaway torque is less than the rated output torque of the actuator.
2. Any mechanical stops that would interfere with the operation of the actuator must be removed before installation of the actuator, i.e. lever, travel stops, etc.
3. The actuator output coupling must be centered with the valve stem to prevent side loading, which causes premature stem packing wear.
4. To use the manual override feature (identified on cover label), the override shaft must be pressed down firmly at least 1/4" in order to disengage the motor from the gears. The manual override is not designed to overcome torque in excess of the rated torque of the actuator. Serious damage to the gear system may result from excessive turning force on the manual override.
5. This Series actuator may be mounted in any position, i.e. horizontal, upside down. If the conduit entrance points upward, conduit piping must be oriented as to prevent condensation from entering the actuator from the conduit pipe.

## Introduction

A motorized gate valve, also known as a sluice valve, is a valve that opens by lifting a barrier (gate) out of the path of the fluid. Gate valves require very little space along the pipe axis and hardly restrict the flow of fluid when the gate is fully opened.

## Features

1. Simple structure, easy to manufacture and maintain
2. Small working stroke and short opening and closing time
3. Good sealing performance, small friction between sealing surfaces and long life
4. In the process of opening and closing, the friction of the sealing surface is smaller than that of the gate valve, which is wear-resistant usually only one sealing surface, good manufacturing process, easy to maintain
5. Electric actuator is easy to operateDesign & Manufacture: KS B2361Construction Length: KS B2361
6. Flange Dimension: KS B2361
7. Pressure Test: KS B2361
8. After the test, remove stagnant water, suburban viscera, anti-rust treatment

## Electric Actuator

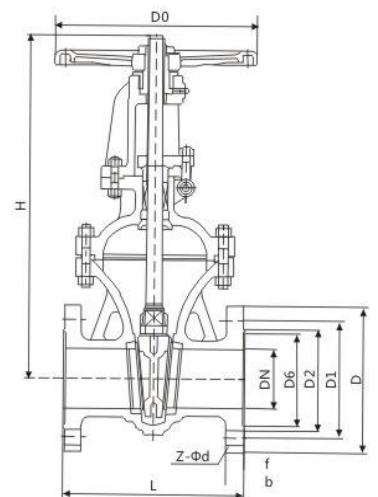
ON-OFF type	Feedback: the active signal, passive contact signal, resistance, 4-20mA
Regulation type	Input and output signal: 4-20mA, 0-10v, 1-5v, switch, MODBUS, PROFIBUS field bus
Filed operation	The field, remote control switch regulation and MODBUS, PROFIBUS field bus
Voltage Option	AC110-240VAC 380V 50/60Hz; 24VAC,DC12V, DC24V ; Special voltage can be customized.
Protection Clase	IP65, Explosion Proof Constrution Are Available: EX d II BT4

## Technical Parameters

Body		Valve components	
Nominal size	2"~16", DN50-DN400	Sealing material	PTFE, EPDM
Body material	Cast Iron, WCB, Stainless Steel	Disc material	Cast Iron, WCB, Stainless Steel
Connection type	Flange & Butt welding Ends	Stem Material	Carbon iron
Pressure Rating	ASME CL, 150, 300, 600, 900, 1500, 2500	Applicable medium	concrete mixing station and dry powder

## Outline Size drawing

公称压力 PN(MPa)	公称通径 DN(mm)	尺寸 Dimensions(mm)								重量 ( kg ) Weight
1.0	15	130	95	65	45	14-2	4-Φ14	160	100	5
	20	150	105	75	55	16-2	4-Φ14	165	100	8
	25	160	115	85	65	16-2	4-Φ14	200	125	11
	32	180	140/135	100	78	18-2	4-Φ18	240	125	13
	40	200	150/145	110	85	18-2	4-Φ18	245	135	9.5
	50	180	165/160	125	100	20-2	4-Φ18	286	180	24
	65	195	185/180	145	120	20-2	4-Φ18	320	180	31
	80	210	195	160	135	20-2	8-Φ18	373	200	40
	100	230	215	180	155	22-2	8-Φ18	428	200	55
	125	255	245	210	185	22-2	8-Φ18	513	240	63
	150	280	280	240	210	24-2	8-Φ22	582	240	90
	200	330	335	295	265	24-2	8-Φ22	730	320	145
	250	380	390	350	320	26-2	12-Φ22	897	320	230
	300	420	440	400	368	26-2	12-Φ22	1032	400	330
	350	450	500	460	428	26-2	16-Φ22	1170	400	460
	400	480	565	515	492	26-2	16-Φ26	1330	500	500
	450	510	615	565	532	28-2	20-Φ26	1460	500	680
	500	540	670	620	585	28-2	20-Φ26	1650	500	960
1.6	600	600	780	725	685	34-2	20-Φ30	183	600	1200
	700	660	895	840	800	34-5	24-Φ30	2120	700	1620
	800	730	1015/1010	950	905	36-5	24-Φ33	2420	800	2090
	900	800	1115/1110	1050	1005	38-5	28-Φ33	2750	850	3100
	1000	850	1230/1220	1160	1110	38-5	28-Φ36	3130	900	4050
	15	130	95	65	45	14-2	4-Φ14	170	120	5
	20	150	105	75	55	14-2	4-Φ14	190	140	6.5
	25	160	115	85	65	14-2	4-Φ14	205	160	9
	32	180	140/135	100	78	16-2	4-Φ18	270	180	12
	40	200	150/145	110	85	16-3	4-Φ18	310	200	26.5
	50	250	165/160	125	100	16-3	4-Φ18	358	240	29
	65	265	185/180	145	120	18-3	4-Φ18	373	240	33
	80	280	200/195	160	135	20-3	8-Φ18	435	280	45
	100	300	220/215	180	155	20-3	8-Φ18	500	300	63
	125	325	250/245	210	185	22-3	8-Φ18	614	320	108
	150	350	285/280	240	210	24-3	8-Φ23	674	360	134
	200	400	340/335	295	265	26-3	12-Φ23	811	400	192
	250	450	405	355	320	30-3	12-Φ25	969	450	273
	300	500	460	410	375	30-4	12-Φ25	1145	580	379
	350	550	520	470	435	34-4	16-Φ25	1280	640	500
	400	600	580	525	485	36-4	16-Φ30	1452	640	540
	450	650	640	585	545	40-4	20-Φ30	1541	720	870
	500	700	715/705	650	608	44-4	20-Φ34	1676	720	1100
	600	800	840	770	718	48-5	20-Φ36	1874	800	1570
	700	900	910	840	788	50-5	24-Φ36	2083	800	1870
	800	1000	1025/1020	950	898	52-5	24-Φ41	2400	850	2500
	900	1100	1125/1120	1050	998	54-5	28-Φ41	2950	1000	3620
	1000	1200	1255	1170	1110	56-5	28-Φ42	3245	1000	4550



## SOLENOID VALVE



## ELECTRIC VALVE



## PNEUMATIC VALVE



## SPECIALIZED FLUID CONTROL VALVE MANUFACTURER

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