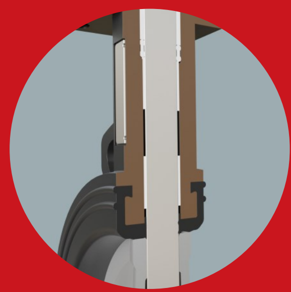
Low Torque Butterfly Valve

TDJ...series

DN50~DN600

PN16

Valve Features



- **Low Torque Valve Seat**

EPDM high-performance valve seat. For same-size valves, it required a lower torque actuator.

- **Backless Structure**

This structure can avoid leakage between valve body and valve seat.

- **Pinless Structure**

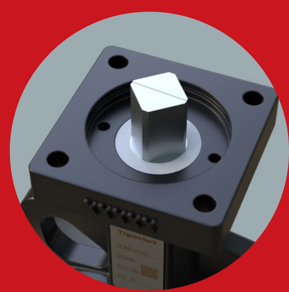
Effectively avoid the risks of corrosion, loosening, and leakage caused by prolonged exposure of pins.

- **Single Valve Shaft**

High degree of concentricity, reduces the closing torque of valve disc.

- **Flying Saucer-shaped Disc**

It conforms to the fluid flow characteristics and can reduce the fluid resistance. The nylon coating and stainless steel disc are optional, with high quality and strong corrosion resistance.



- **Standard Upper Flange Connection Interface**

The design of the upper flange meets the connection requirement of the international standard ISO5211, which is convenient for matching actuator.

- **Quality Materials**

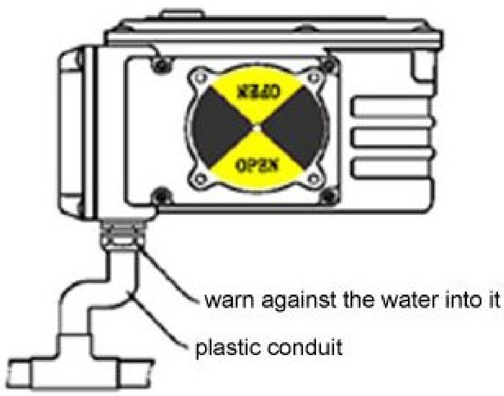
The valve body is made of high-quality ductile iron (EN-GJS-450-10), and the surface adopts epoxy coating craft, the body has better intensity and corrosion resistance.

Type Overview

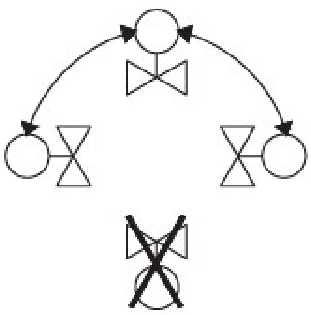
			Actuator Type	On/off 2SPDT feedback	On/off	Modulating 0-10V	Modulating 4-20mA
Valve Type Nylon-coating Disc	**Valve Type Stainless steel Disc**	**DN**	**Kvs**	**Actuator Type**	**Actuator Type**	**Actuator Type**	**Actuator Type**
TDJ50-LGC-F07A	TDJ50-HGC-F07A	50	193	TBV100-DF2	TBV100-D	TBV100-X.V	TBV100-X.MA
TDJ65-LGC-F07A	TDJ65-HGC-F07A	65	315	TBV100-DF2	TBV100-D	TBV100-X.V	TBV100-X.MA
TDJ80-LGC-F07A	TDJ80-HGC-F07A	80	425	TBV100-DF2	TBV100-D	TBV100-X.V	TBV100-X.MA
TDJ100-LGC-F07A	TDJ100-HGC-F07A	100	723	TBV100-DF2	TBV100-D	TBV100-X.V	TBV100-X.MA
TDJ125-LGC-F07B	TDJ125-HGC-F07B	125	1243	TBV160-DF2	TBV160-D	TBV160-X.V	TBV160-X.MA
TDJ150-LGC-F07B	TDJ150-HGC-F07B	150	1859	TBV160-DF2	TBV160-D	TBV160-X.V	TBV160-X.MA
TDJ200-LGC-F10C	TDJ200-HGC-F10C	200	3124	TBV160-DF2	TBV160-D	TBV160-X.V	TBV160-X.MA
TDJ250-LGC-F10D	TDJ250-HGC-F10D	250	4757	TBV160-DF2	TBV160-D	TBV160-X.V	TBV160-X.MA
TDJ300-LGC-F10E	TDJ300-HGC-F10E	300	7058	TBV160-DF2	TBV160-D	TBV160-X.V	TBV160-X.MA
TDJ350-LGC-F12F	TDJ350-HGC-F12F	350	8319	TBV1000-DF2	TBV1000-D	TBV1000-X.V	TBV1000-X.MA
TDJ400-LGC-F12F	TDJ400-HGC-F12F	400	11458	TBV1000-DF2	TBV1000-D	TBV1000-X.V	TBV1000-X.MA
TDJ450-LGC-F14G	TDJ450-HGC-F14G	450	13612	TBV2000-DF2	TBV2000-D	TBV2000-X.V	TBV2000-X.MA
TDJ500-LGC-F14G	TDJ500-HGC-F14G	500	18748	TBV2000-DF2	TBV2000-D	TBV2000-X.V	TBV2000-X.MA
TDJ600-LGC-F16G	TDJ600-HGC-F16G	600	25217	TBV4000-DF2	TBV4000-D	TBV4000-X.V	TBV4000-X.MA

Wiring Instruction

1. Let the wire through wire-fixed device; then fix the wire on wiring terminal safely according to circuit diagram. Tighten the wire-fixed device to ensure the wire is locked.
2. When use electric wire conduit, water proof should be noticed, wire conduit should be lower than actuator to prevent the water flow along the wire into the actuators, please see the schematic diagram.
3. Voltage of power supply: Please insure the voltage of power sup-ply according to the brand or wire graph.
4. Safety switch and short-circuit switch: the current should less than 2 to 3 times than normal current. But must use the safety switch and short-circuit switch.

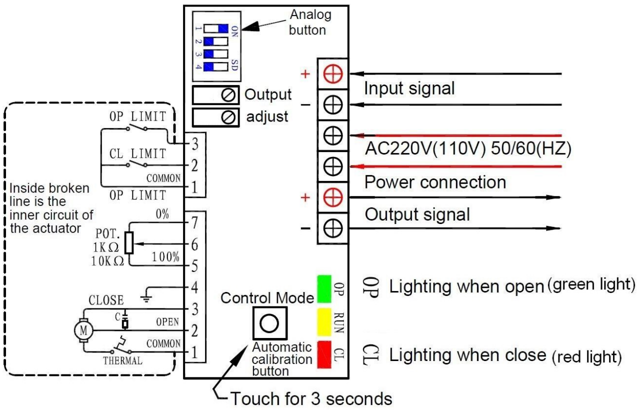


Installation Instruction

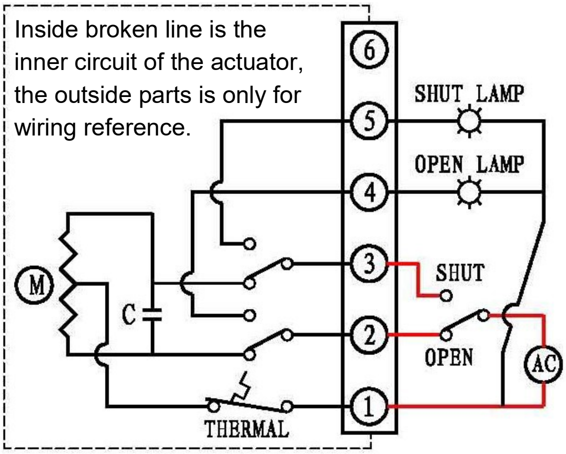


Downward installation is forbidden

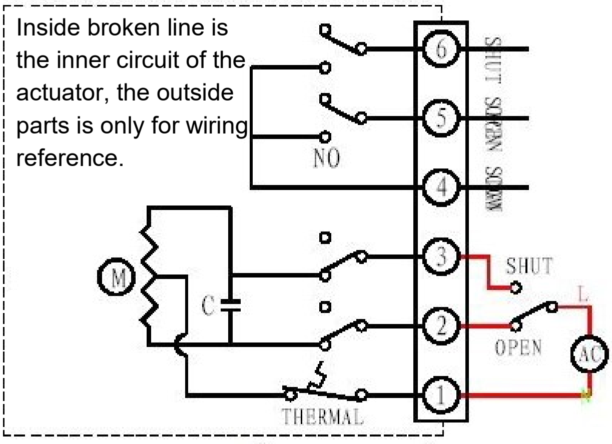
Wiring Diagram



Modulating



On/off

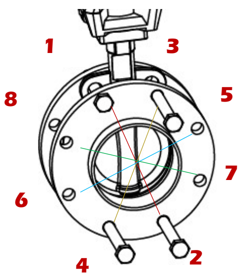


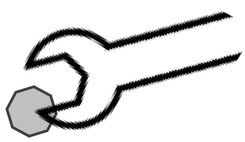
On/off with 2 SPDT feedback

Warning:
Do not connect the power lines of two or more on/off electric actuator in parallel.
In other words, do not use the same conta ct point to control multiple electric actuator s, as this can cause loss of control and mo tor overheating!

Installation Instruction

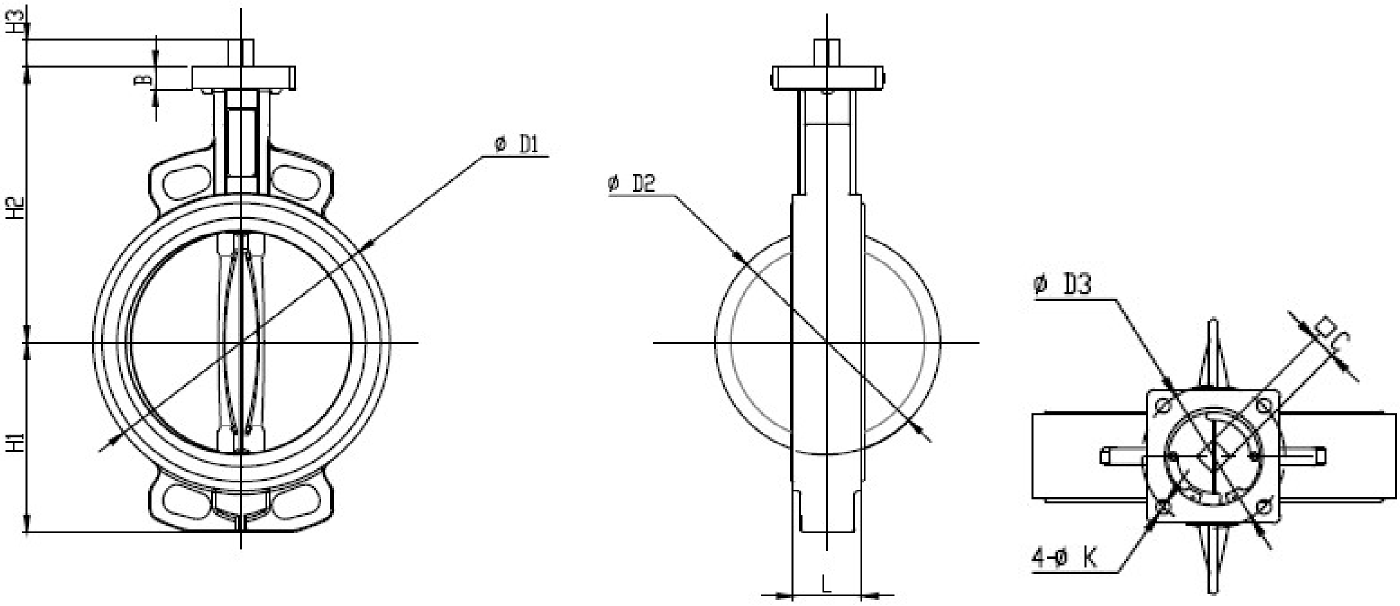
1. Manually turn the valve to ensure there are no abnormalities, and turn the valve and electric actuator to the fully open position.
2. Insert the valve stem into the corresponding hole in the electric actuator and tighten the flange screws.
3. When installing the valve to the pipeline, tighten the nuts diagonally.





4. Installation Notice: Put cover on actuator for avoiding sunshine made high temperature inside; or else, the parts will aging and shorten the service life. Besides, the rain will speed up the seal parts aging which could lead to a leakage and damage the actuator.
5. Notice for indoor installation: keep enough space for wiring and manual device. In water splash environ-ment the cover is needed. If it is No-explosion-proof products, do not install in the room with flammable and combustible gas.

Dimension



Caliber	L mm	H1 mm	H2 mm	H3 mm	B mm	D1 mm	D2 mm	D3 mm	C mm	K mm	Actuator Dimension L*W*H
DN50	43	62	143	19	17	96	60	70	11	8.2	125*121*141
DN65	46	83	155	19	17	110	72	70	11	8.2	125*121*141
DN80	46	92	162	19	17	124	84	70	11	8.2	125*121*141
DN100	52	105	181	19	17	148	106	70	11	8.2	125*121*141
DN125	56	119	197	19	17	180	128	70	14	8.2	204*140*149
DN150	56	130	210	19	17	206	150	70	14	8.2	204*140*149
DN200	60	165	240	24	20	259	197	102	17	10.2	256*173*174
DN250	68	209	286	24	20	320	249	102	19	10.2	256*173*174
DN300	78	243	309	24	22	370	301	102	22	10.2	256*173*174
DN350	78	270	329	29	24	420	335	125	27	12.2	280*176*186
DN400	102	300	361	29	25	475	389	125	27	12.2	280*176*186
DN450	114	325	392	38	36	530	440	140	36	16.2	280*176*186
DN500	127	365	429	38	36	586	492	140	36	16.2	280*176*186
DN600	154	400	492	48	44	687	583	140	36	16.2	408*269*200

Technical Parameters

• Functional Data—Actuator	
Operating torque	220±10%VAC
Frequency	50Hz/60Hz
Control mode	Modulating On/off
Control signal TBV-...X.V TBV-...X.MA	 0~10VDC 4-20mA
Rotation angle	90°
Withstand voltage	1500V
Protection	Heat shield
Manual device	With manual device
Degree of protection	IP68

Technical Parameters

• Functional Data—Valve	
Nominal size	DN50-DN600
Nominal pressure	PN16
Flow characteristic	Equal-percentage
Leakage rate	Zero leakage
Medium	Chilled/hot water, glycol under 50%
Medium temperature	Nylon coating disc: -20~80℃ Stainless steel disc: -20~130℃
Connection standard	ISO 7005-2
Upper flange connection standard	ISO 5211
Rotation angle	90°

• Valve spare parts materials	
Valve body	Ductile iron
Valve core	Stainless steel
Valve shaft	Stainless steel
Valve disc	Ductile iron + nylon coating or stainless steel

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