



TXMC



## GENERAL KNOWLEDGE

### General Instruction for Electric actuator

For your own safety, please read the instruction below before you inquiring / using our products.

#### Wiring

ST Series. When use DC24V power. No need to partition anode and cathode.

- Wiring project should carry on by the qualified electric engineer according to the electrical facility technique standard.
- It forbids to do wiring project in rainy day or in high humidity.
- Please confirm wiring connection drawing correct connection.
- This device have special cable, no need interior wiring.
- No-opening the top cover ( already have cables ).
- When electrifying, absolutely forbid to connect the opening and closing switch at the same time.
- When using line-pipe,operator should adopt waterproof measure.
- When there's water hammer phenomenon, please aware of valve switching time adjustment and choose the suitable product.
- Operator should make sure that the electric appliance of this valve is higher than line pipe, in order to prevent water from the inflowing electric appliance along line which leads to damaging of machine.

#### Operating

##### Manual operating

- Uninstall manual insert hole cover. Below having lever shaft hexangular hole ( subtense 4mm ).
- Insert socket head wrench to hexagon, "close" is clockwise, "open" is counter-clockwise.
- When electrifying,manual operation is forbidden. When manual operation,must confirm the display on opening meter. To avoid malfunction, when full open and full off, DO NOT use hexagon wrenches to turn forcefully.



#### Electromotion operation

- Before electromotion operation, please use the manual operation method, to confirm the opening meter and valve are in the same position, and make sure the wire connection is correct, then do the electro-motion operation.
- When full open, red LED is on, when full off,green LED is on.

#### Maintenance

- Because use of the molybdenum disulfide lithium-based grease so no need to add oil.
- Work after a long stop,please confirm if the core deflecting and torsion happen,and if it has good slippage.

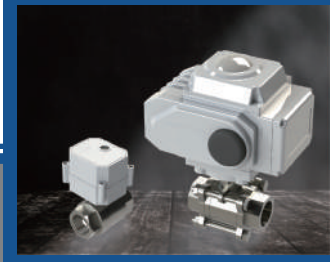
#### Noted items of indoor installation

- The common product,be installed in the room full of explosive air unless explosion-proof product.
- If installed at certain place having water or splashed material, operator is supposed to install the protection cover additionally for covering complete-machine safely.

#### Noted items of outdoor installation

- Please installing protection cover above complete-machine additionally in order to avoid rain of sunshine ( The shining of sunshine outdoor would lead to high-temperature which accelerates ageing of components,even losing effective. The rain would accelerate aging of rubber-pad, moreover, the product will be damaged if failing in water proof conduction ).
- Operator should save necessary space needed by manual wire-in operation in advance.



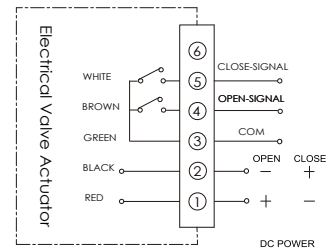
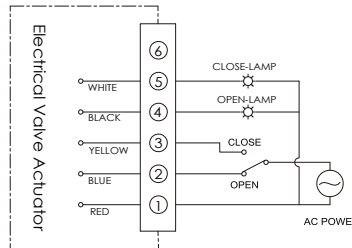


# PRODUCT/ MOTORIZE BALL VALVE

## 電動閥門驅動裝置 Electrical Valve Actuator



### Wiring connection



### Specifications Characteristics

Series	ST-05B		ST-10B		ST-20B		ST-40B		ST-60B	
	DC24V	AC110V AC220V	DC24V	AC110V AC220V	DC24V	AC110V AC220V	DC24V	AC110V AC220V	DC24V	AC110V AC220V
Acting range	0 ~ 360°				0 ~ 90°		0 ~ 90°		0 ~ 90°	
Output torque	50Nm		100Nm		200Nm		400Nm		600Nm	
Acting time	7Sec	20Sec	10Sec	30Sec	12Sec	30~60Sec	15Sec	30~60Sec	20Sec	45~60Sec
Rating electricity	0.5A	0.48A 0.24A	0.85A	0.7A 0.32A	1.2A	1.6A 0.88A	2.5A	2.2A 1A	2.5A	2.2A 1A
Motor power	10W	15W	20W	25W	40W	40W	70W	90W	90W	90W
Insulation resistance(MΩ)	100/250 VDC	100/500 VDC	100/250 VDC	100/500 VDC	100/250 VDC	100/500 VDC	100/250 VDC	100/500 VDC	100/250 VDC	100/500 VDC
Voltage resistance rating (1 Minute)	500VAC	1500VAC	500VAC	1500VAC	500VAC	1500VAC	500VAC	1500VAC	500VAC	1500VAC
Use of the environment	Temperature: -25~+55°C ; Humidity: 10~90%RH									
Defend level	IP-67									
Body material	Aluminium die-casting									
Install direction	360 degrees omni-directional									
Electriad connection	Each one or M18*1.5 water-proof cable connectors									
Weight	2.8kg		4.4kg		9.5kg		10kg		10kg	

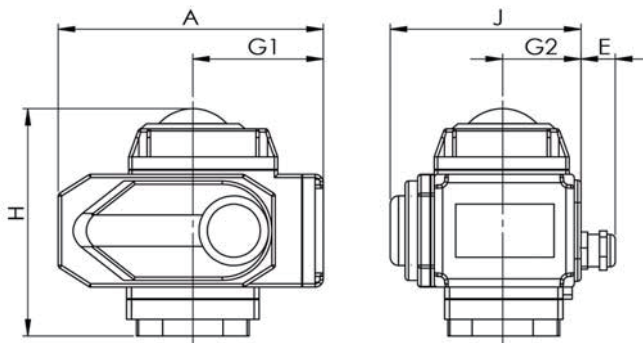
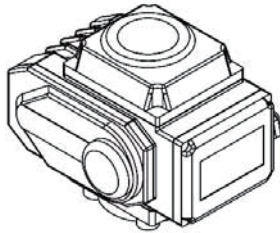


# PRODUCT/ MOTORIZE BALL VALVE

## Installation

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- This device have special cable, no need interior wiring.
- No-opening the top cover ( Already have cables ).
- When electrifying,absolutely forbid to connect the opening and closing switch at the same time.
- When using line-pipe,operator shouldadopt waterproof measure.
- Operator should make sure that the electric appliance of this valve is higher than line pipe, in order to prevent water from inflowing electric appliance along line which leads to damaging of maching.

## Dimensions ( mm )



Code No.	A	E	G1	G2	H	J
ST05	160	24	78	50	151	114
ST10	196	24	99	50	170	122
ST20	256	24	135	65	208	156
ST40	256	24	135	65	208	156
ST60	256	24	135	65	208	156

## Maintenance

- Because use of the molybdenum disulfide lithium-based grease, so that no need to add oil.
- Work after a long stop, please confirm if he core-deflecting and torsion happen, and if it has good slippage.

## Noted items of indoor installation

- The common product,be installed in the room full of explosive air unless explosion-proof product.
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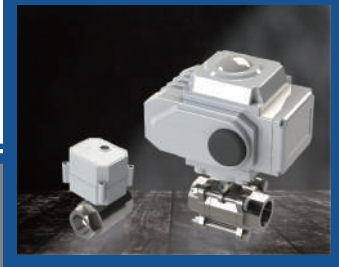
## Operating

### Manual operating

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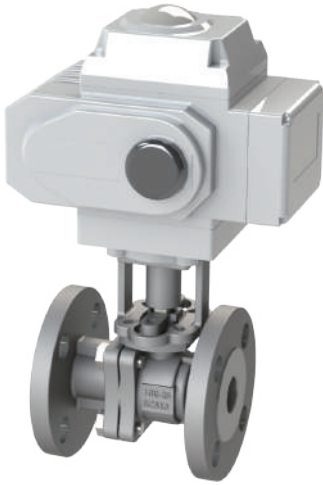
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# PRODUCT/ MOTORIZE BALL VALVE

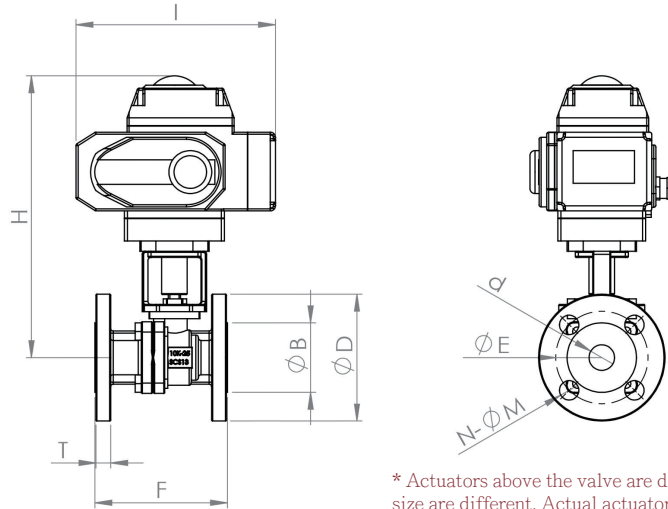
## Motorize Flange Ball Valve ( JIS-10K )



## Specifications Characteristics

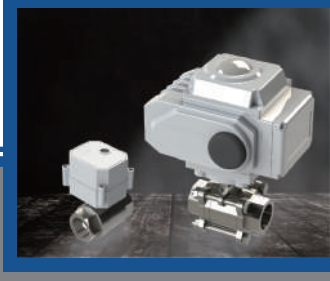
Model	1F Series ( 10K )
Medium Temp.	-20°C - 150°C
ENV Temp.	-20°C - 60°C
Pressure	0 - 10 Kgf/cm2
Function	Switch control, Proportional control
Actuator Mat.	Aluminium alloy die-casting, Protect level IP-67
Valve body Mat.	Stainless steel SUS304 ; 316
Valve seat Mat.	PTFE
Valve stem Mat.	Stainless steel SUS304 ; 316
Flange Spec.	JIS B2220 ( RF Surface ) / Surface Spec: JIS B2002

## Dimensions ( mm )



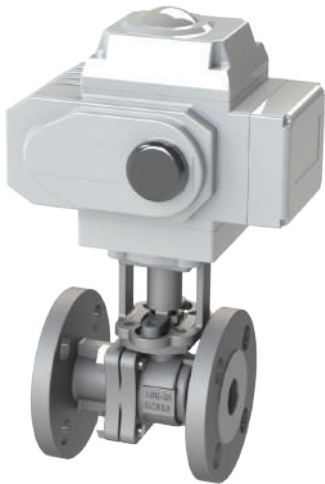
\* Actuators above the valve are divided into High torque and Low torque, size are different. Actual actuator dimension based on the real product.

Body Dimension	d	B	D	E	F	H	I	M	N	T	Actuator Suggest
1/2"	15	51	95	70	110	244	160	15	4 Holes	12	ST05
3/4"	20	56	100	75	120	250	160	15	4 Holes	14	ST05
1"	25	67	125	90	130	255	160	19	4 Holes	14	ST05
1-1/4"	32	76	135	100	140	260	196	19	4 Holes	16	ST05
1-1/2"	40	81	140	105	165	302	196	19	4 Holes	16	ST10
2"	50	96	155	120	180	307	196	19	4 Holes	16	ST10
2-1/2"	65	116	175	140	190	380	256	19	4 Holes	18	ST20
3"	80	126	185	150	200	390	256	19	8 Holes	18	ST20
4"	100	151	210	175	230	405	256	19	8 Holes	18	ST40
5"	125	182	250	210	300	455	256	23	8 Holes	20	ST60
6"	150	212	280	240	340	510	256	23	8 Holes	22	ST100



# PRODUCT/ MOTORIZE BALL VALVE

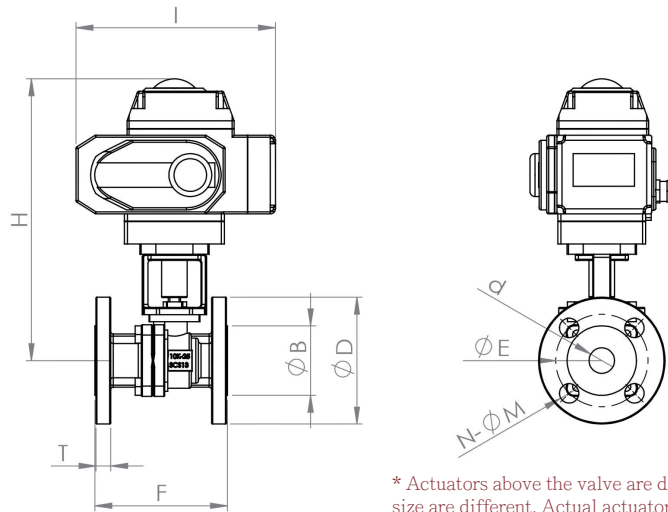
## Motorize Flange Ball Valve ( JIS-20K )



## Specifications Characteristics

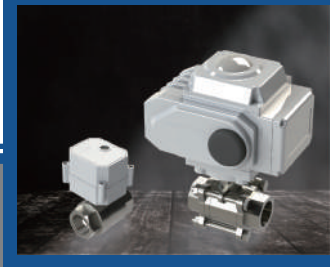
Model	1F Series ( 20K )
Medium Temp.	-20°C - 150°C
ENV Temp.	-20°C - 60°C
Pressure	0 - 20 Kgf/cm2
Function	Switch control, Proportional control
Actuator Mat.	Aluminium alloy die-casting, Protect level IP-67
Valve body Mat.	Stainless steel SUS304 ; 316
Valve seat Mat.	PTFE
Valve stem Mat.	Stainless steel SUS304
Flange Spec.	JIS B2220 ( RF Surface ) / Surface Spec: JIS B2002

## Dimensions ( mm )



\* Actuators above the valve are divided into High torque and Low torque, size are different. Actual actuator dimension based on the real product.

Body Dimension	d	B	D	E	F	H	I	M	N	T	Actuator Suggest
1/2"	15	51	95	70	140	244	160	15	4 Holes	14	ST05
3/4"	20	56	100	75	152	250	160	15	4 Holes	16	ST05
1"	25	67	125	90	165	255	160	19	4 Holes	16	ST05
1-1/2"	40	81	140	105	190	302	196	19	4 Holes	18	ST10
2"	50	96	155	120	216	307	196	19	8 Holes	18	ST10
2-1/2"	65	116	175	140	241	380	256	19	8 Holes	20	ST20
3"	80	132	200	160	283	398	256	23	8 Holes	22	ST20
4"	100	160	225	185	305	413	256	23	8 Holes	24	ST40
5"	125	195	275	225	381	465	256	25	8 Holes	26	ST60
6"	150	230	305	260	403	523	256	25	12 Holes	28	ST100



# PRODUCT/ MOTORIZE BALL VALVE

## How to select model

**ST 20 B - 1F 80 S 2J X - AC220V**

Actuator Model		Function		Dimension		Body Material		Other parts		Voltage
Model	Function	Code	Dimension	Code	Material	Code	Material	Code	Voltage	
05	Switch Type	B	1/2"	15	CF8		TFM4215	X	AC110V	
10	Proportional Type	A	3/4"	20	CF8M	S			AC220V	
20			1"	25					DC24V	
40			1-1/4"	32						
60			1-1/2"	40						
100			2"	50						
			2-1/2"	65	JIS-10K	J				
			3"	80	JIS-20K	2J				
			4"	100	ANSI 150	A				
			5"	125	ANSI 300	2A				
			6"	150						

### Flange spec

Flange	Code
JIS-10K	J
JIS-20K	2J
ANSI 150	A
ANSI 300	2A

\* Gasket in the valve is **PTFE** in the factory setting.  
Suggest working temperature: -5°C ~ 150°C

TFM4215 is the special PTFE for **high temperature**.  
Suggest working temperature: -5°C ~ 200°C

\* Actuator Proportional type  
Input / Output signal  
**4 - 20 mA.DC** in factory setting.

If you have different request,  
welcome to discuss with us.

