

2 Way **Electric Actuated Ball Valve**  
Compact & Sleek Design

**1355**SERIES



**YES. WE CARE...**  
| Courteously | Attentively | Respectably | Effectively |

**SUDE**®  
An ISO 9001:2008 Certified Company

## Innovation

**NEW WARRIOR FOR PROCESS INDUSTRIES**  
 'Motorized Ball Valves' can be used as a straight replacement for solenoid valve due to its various advantages :



### Advantages of Motorized Ball Valve over Solenoid Valves are:

a) High CV	: Low CV	<b>Where as Solenoid Valves :</b>
b) No Pressure drop	: It is very high.	
c) Can be used for any Flowing medium including high viscous flow	: Has its own limitation	
d) It can be used for High Vacuum application too	: Used for Low vacuum & During power off mode under vacuum they close little late	
e) It can be used for a temperature up to 170 degree C continuous	: Has its own limitation	
f) It can be re modified for Proportionate control application too	: Available Only in On/Off Mode	
g) It can be 'ON' for long time duration	: If ON for long time then coil gets burnt	

### Introduction - Ball Valve

A ball valve, in single piece design one type of quarter turn valve, is quite literally a ball placed in a passageway through which fluid flows. The ball has a hole through it, by which the valve opens and closes. When the ball is positioned so that the hole runs the same direction as the passageway, the fluid simply flows through the hole, and the valve is open. However, when the ball is positioned so that the hole is perpendicular to the passageway, the fluid cannot pass through, and the valve is closed. The ball is controlled from outside the valve, often through actuation which will turned the Ball to 90 degrees, or a quarter turn, back and forth to open and close the valve. Refer typical cut section of the Ball valve.

The basic ball valve, described above, is a two-way valve. This ball valve has a single, straight passageway bored through the ball, making two openings: one on each side, an inlet and an outlet. A ball valve can also be a three-way valve if a third hole is bored partially through the ball, until it meets the main hole, forming a T or L type. A three-way ball valve can shut off one or all of the three passageways it connects.

Because of the nature of the ball valve, it does not work well in situations in which fine control of the valve is needed but by changing the Ball pattern to "V" notch the flow through the valve can be controlled, for details please consult factory for more information. However, a ball valve works very well for situations in which a flow needs to work on On/Off mode almost suitable for all

medias. Ball valves also do not tend to develop problems if they are not used for long periods of time; they will still work perfectly when needed again.

There are three different types of Ball valve. A full port ball valve offers no flow restriction, which means that when the ball valve is open, the liquid can flow freely through it.

This is achieved by making the Ball larger than the passage size, so that the hole bored through it can be the same size as the passage. A standard port ball valve does not have an oversized ball, and as a result the hole is one size smaller than the passageway. This presents a small amount of flow restriction as the fluid passes through the ball valve. A reduced port ball valve, on the other hand, has an even smaller ball and an even smaller hole, which creates significant flow restriction as the fluid passes through the valve.

A **Ball Valve** is a valve with a spherical disc, the part of the valve which controls the flow through it. The sphere has a hole, or port, through the middle so that when the port is in line with both ends of the valve, flow will occur. When the valve is closed, the hole is perpendicular to the ends of the valve, and flow is blocked. The Ball valve, along with the butterfly valve and plug valve, are part of the family of quarter turn valves.

Ball valves are durable and usually work to achieve perfect shutoff even after years of disuse. They are therefore an excellent choice for shutoff applications and are often preferred to globe valves and gate valves for this

purpose and today we proudly announced the Ball valve can be used as **“Replacement for the Solenoid valves”**.

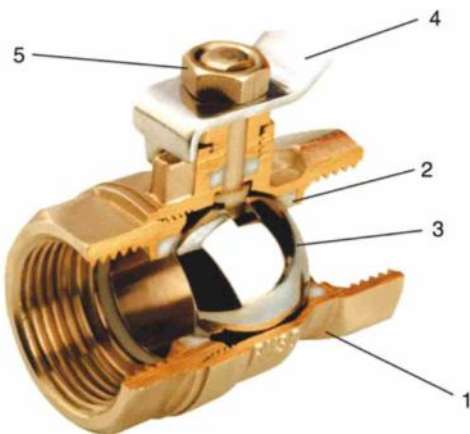
Ball valves are used extensively in industrial applications because they are very versatile, supporting pressure up to 10bars and temperatures up to 180°C and we are Developing a valve up to a pressure of 25 bar for size up to 50mm BSP screwed end connection.

The bodies of Ball valves are made of Brass, SS316 and SS304 and we are also developing in UPVC construction.

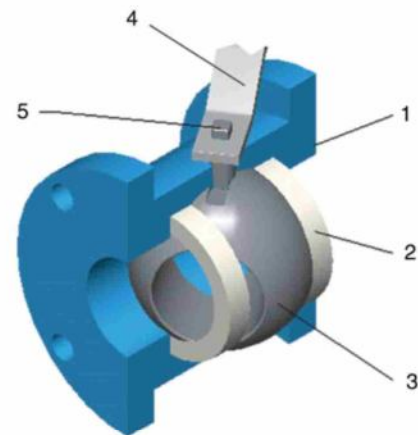


## Cutaway View of a Simple Manual Ball Valve

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- 1) Body
- 2) Seal
- 3) Disc (Ball)
- 4) Handle (Lever)
- 5) Steam



## Product Characteristics

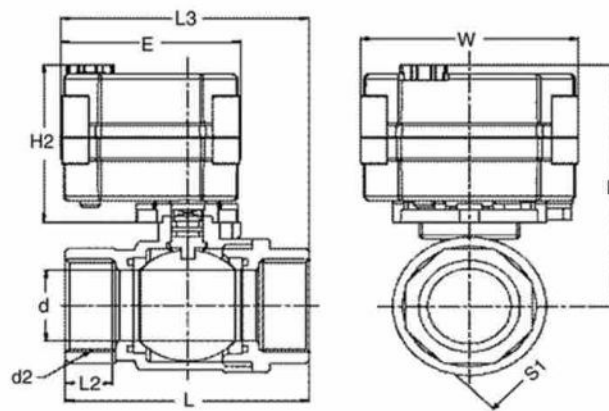
- Has compact size with smart shape, Perform reliably, has long life time.
- The transmission system adopt new technology and made of metal gears with high output torque.
- Multi-angle assembly, convenience for different space allocation requirements.
- Floating seal structure, no leak, suitable for heavy dirt and long time no action occasion.
- Can replace the solenoid valve in the Conditions that the solenoid valve can not be worked.
- Variety of control methods can both recognize the remote signal and feedback signal to the intelligent unit which is under development.
- Motor & manual integration designed with the indicator.
- High protection class can be worked in moist conditions.

## Suitable Applications

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- IC card water meters, heat energy meters, solar instrument.
- The central air conditioning fan coil, fire sprinkler.
- Water saving irrigation, automatic control system, industrial mini automatic control equipment.
- Agriculture Irrigation equipment.
- Drinking water equipment, Water heater, washing machine, AHU etc.
- Chemical, textile, Cement machinery, combustion equipments, Air dryer, cleaning equipments, Ash handling system, Boiler industries, Sugar machinery, Furnace industries, Gas burning equipments, Autoclaves, oil centrifuge plants, Vacuum plants and many more application were others valves are failed, the Ball valve with Electrical actuator has work very successfully.

Product size	¼", ½", ¾", 1", 1¼", 1½" & 2"
Maximum working pressure	10 bar
Circulation medium	Air, Vacuum, Oil, Gas, Hot Water, Cold Water, Wet Steam, Dry Steam etc and many more application where others valves are failed.
Rated voltage	24 V AC, 24 V DC, 110 V AC, 110 V DC & 230 V AC.
Working current	80MA
Open/close time	5Sec
Life time	50000 times
Valve Body material	Brass, Nickel plated Brass, Ss304, Ss316
Actuator material	Engineering Plastics
Sealing material	PTFE
Actuator rotation	90°
Environment temperature	-15°C~50°C
Liquid temperature	2°C~90°C
Manual override	Yes / No
Indicator	Yes / No



## Technical Details of Full Bore Electric Actuated Ball Valves

Model Number	d2	Cv	d(Bore)	H	H2	L	L2	L3	S1	E	W	Weight In gms
1355/FB/06/EA	¼"	8	8	71	52	48	11	62	20	54	65	220
1355/FB/15/EA	½"	13	15	74	52	56	12	64	25	54	65	342
1355/FB/20/EA	¾"	21	20	77	52	66	14	69	31	54	65	432
1355/FB/25/EA	1"	26	24	80	52	71	15	73	39	54	65	504
1355/FB/32/EA	1 ¼"	50	32	84	52	85	20	85	46	54	65	670
1355/FB/40/EA	1 ½"	80	40	116	77	115	25	115	54	72	89	1026
1355/FB/50/EA	2"	110	50	122	77	140	35	140	68	72	89	1140

## Technical Details of Reduced Bore Electric Actuated Ball Valves

Model Number	d2	Cv	d(Bore)	H	H2	L	L2	L3	S1	E	W	Weight In gms
1355/RB/06/EA	¼"	8	6	71	52	48	11	62	20	54	65	220
1355/RB/15/EA	½"	8	12	74	52	56	12	64	25	54	65	324
1355/RB/20/EA	¾"	13	15	77	52	61	14	66	31	54	65	410
1355/RB/25/EA	1"	21	20	80	52	66	15	68	39	54	65	476
1355/RB/32/EA	1 ¼"	26	25	84	52	79	20	79	46	54	65	610
1355/RB/40/EA	1 ½"	50	25	116	77	100	25	100	54	72	89	923
1355/RB/50/EA	2"	80	40	122	77	130	35	130	68	72	89	1036

Note : Technical specifications, details & dimensions are subject to change with prior notice. dimensions in the table are approximate subject to final confirmation by sude.



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