



**WECHAT**



**WEB**

# Welcome to HEARKEN

## Actuators and Controls



### The Trusted, Passionate and focused Partner in Valve Automation

At HEARKEN FLOW, The founding principle of Hearkenflow is simple: to Listen our customers needs first, to develop the innovative valve actuators solutions , to meet the unique needs of our customers, Along the way, To help our customers to solve the problems in Valve Automation. We are growing our brand in Pneumatic and Electric Actuators, Accessories..



**IP68**



Experienced team



Large inventory



Convenient consultation

### WHY WE ARE DIFFERENT

We offer a complete valve automation solution by the applications experience and customization capabilities, with an experienced support team to guide you in selection, installation, and project support. In addition we maintain an extensive supply of product inventory on hand so that we can quickly fulfill orders and reduce wait times. Our sales and support staff are readily available and accessible so that customers get the answers they need quickly.

### THE TARGET WE ARE PURSUING



High-quality

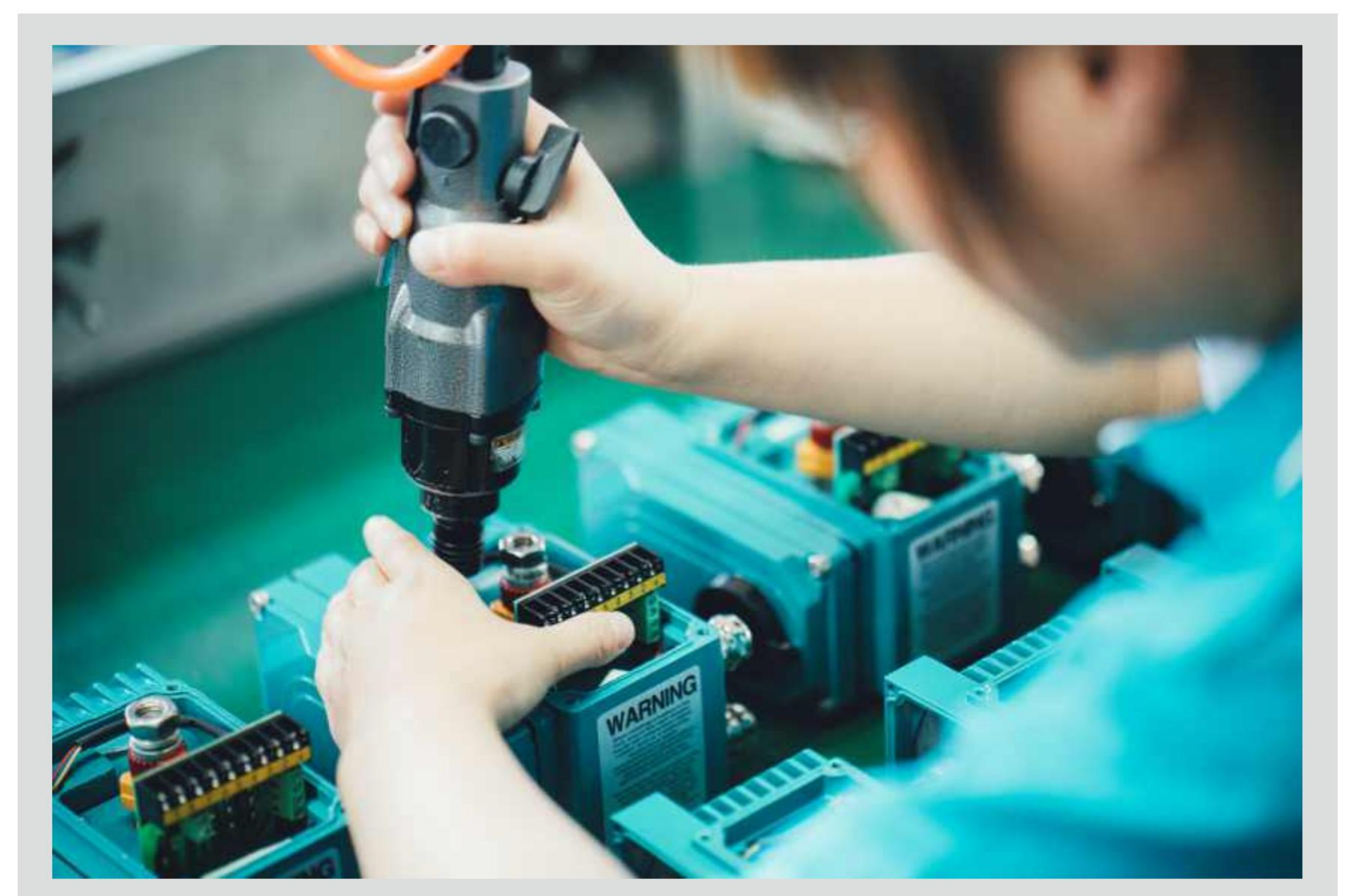


low cost



Reliable solution

- To built A strong Reputation in Providing Quality, Cost Effective , Reliable And Robust Performance Solutions for Valve Automation,
- Included Pneumatic Actuators, Electrically Actuators, Actuated Valves.



### COMMITMENT TO QUALITY

At HEARKEN FLOW means performance, All products manufactured by HEARKEN FLOW are warranted against defects in material and workmanship for a period of 18 months from the day of startup. Each of our products are tested at the factory. we are confident that our products meet or exceed all applicable standards before they ever leave our facility. We are an ISO 9001-2008 certified company. Our Valve Actuators Has Applied for SIL3 Certificate, ATEX Certificate ,CE, Explosion-proof Certificate, IP68 Weather proof etc....



# HEAS Brass Series Electric Ball Valve

## — Energy-efficient

### Description

This series of electric ball valves are composed of two parts: the valve body and the driver. It has the advantages of simple structure, reliable work, strong fluid passing capacity and energy saving. It can be widely used for on-off control of cold and hot water in heating, central air-conditioning, solar water heating systems, and water treatment systems; it can also be used for on-off control of low-pressure steam. Varieties include two-position two-way and two-position three-way.

### Features

- ◆ Built-in high-quality micro switch, the motor will not pass after the valve opening and closing process is completed Electricity, so long life, energy saving, and particularly safe.
- ◆ The shell is made of high-strength flame-retardant engineering plastic, which is durable.
- ◆ Adopt high-quality PTFE sealing ring, and install special elastic structure at both ends to ensure Ensure that the seal is stable and reliable and the seal life is greatly extended.
- ◆ Three-wire one-control ball valve driver has a built-in control circuit board, one-line control,It can be equipped with a three-speed switch, which can realize multiple valves in parallel and save thermostats.
- ◆ Good waterproof and dustproof function (IP54)
- ◆ Especially the second-line power-off reset, can replace the solenoid valve.



### Technical Parameter

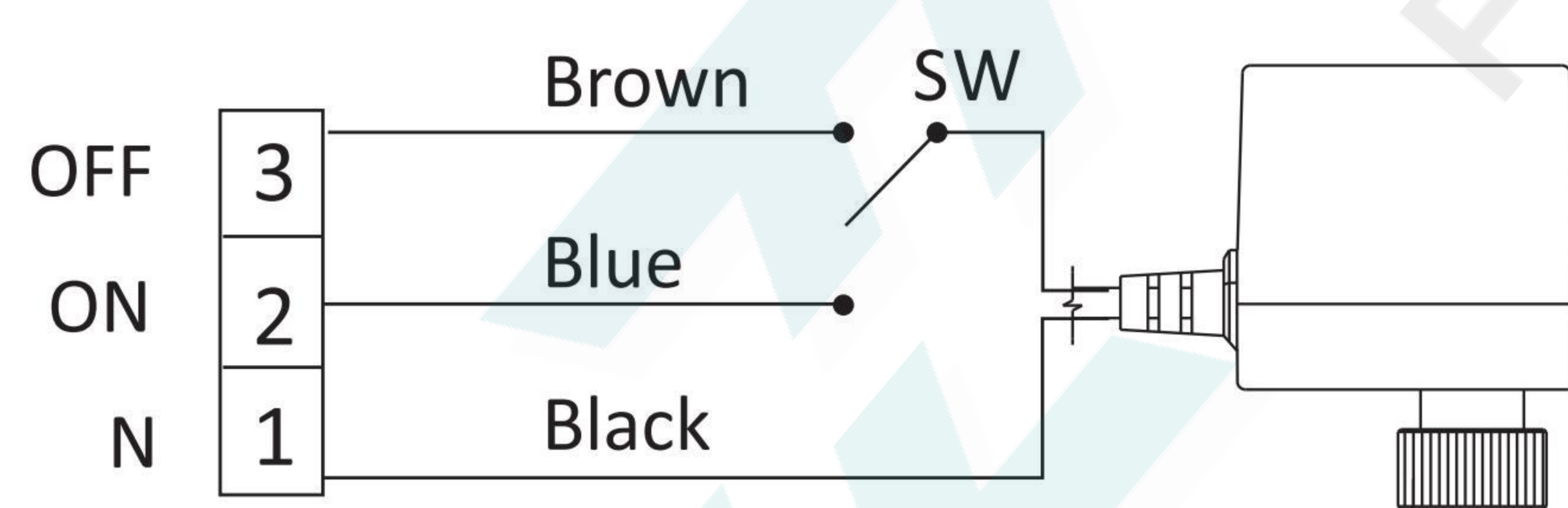
- ◆ Drive voltage: 220VAC (or AC 12V, 24V, 110V; DC 5V, 12V, 24V for choice)
- ◆ Power consumption: AC 5W; DC 1.5W (only in the process of valve opening and closing)
- ◆ Valve body pressure: 1.6MPa
- ◆ Allowable pressure difference:  $\leq 0.6$ MPa

Applicable medium: cold water, hot water and low-pressure steam ( $\leq 0.4$ MPa)

- ◆ Opening and closing time: 360 degrees to two links for about 56 seconds, three links for about 108 seconds; 90 degrees to two and three links for about 36 seconds; DC open 8 seconds, off for 11 seconds.
- ◆ Applicable medium temperature: 1-130°C
- ◆ Applicable ambient temperature: 0-65°C
- ◆ Connection method: pipe thread G, tapered inner pipe thread (also can be customized according to user requirements)

### Wiring and Related Circuit Schematic Diagram

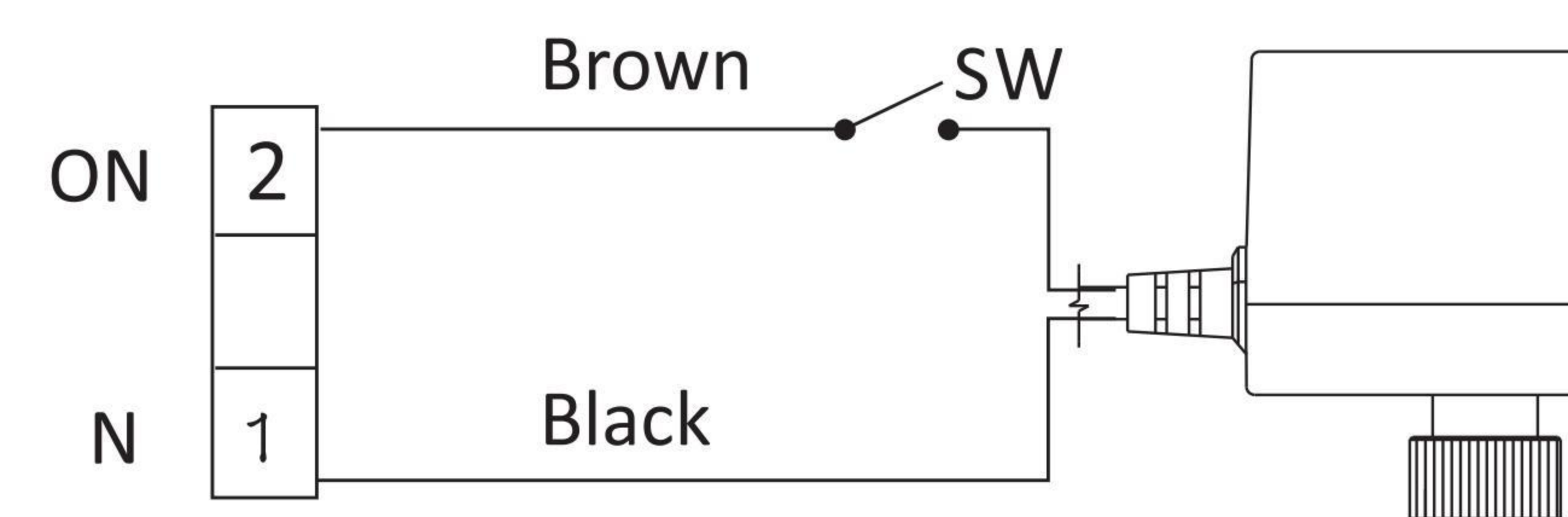
Three lines and two controls Voltage: 220VAC/12V/24V/110V; DC5V/12V/24V



1. The SW is connected with the blue wire, and the valve is open: When it is in place, the internal power will be automatically cut off, and the valve will remain in the open state.
2. The SW is connected to the brown wire, and the valve is closed: When it is in place, the internal power will be automatically cut off, and the valve will remain in the closed state.

Two-wire power failure reset

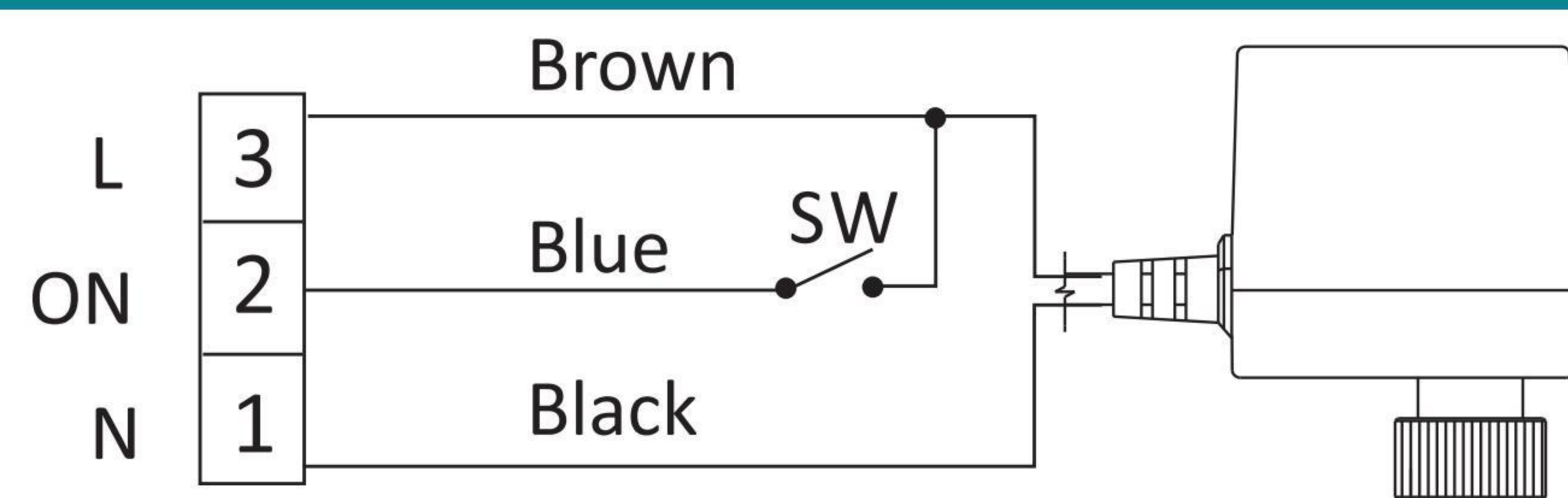
Voltage : 220VAC; DC9V/12V/24V



1. Normally closed control mode: when the brown wire is closed, the valve opens; when it is in place, the internal power is automatically cut off, and the valve remains in the open state.
  2. Normally closed control mode: when the brown wire is disconnected, the valve is closed; when it is in place, the internal power is automatically cut off, and the valve remains in the closed state.
  3. Normally open control mode: when the brown wire is closed, the valve is closed; when it is in place, the internal power is automatically cut off, and the valve remains in the closed state.
  4. Normally open control mode: when the brown wire is disconnected, the valve opens; when it is in place, the internal power is automatically cut off, and the valve remains in the open state.
- Note: The power-on time is not less than 2 minutes (otherwise the backup power supply cannot be triggered to close or open the valve)

Three lines and one control

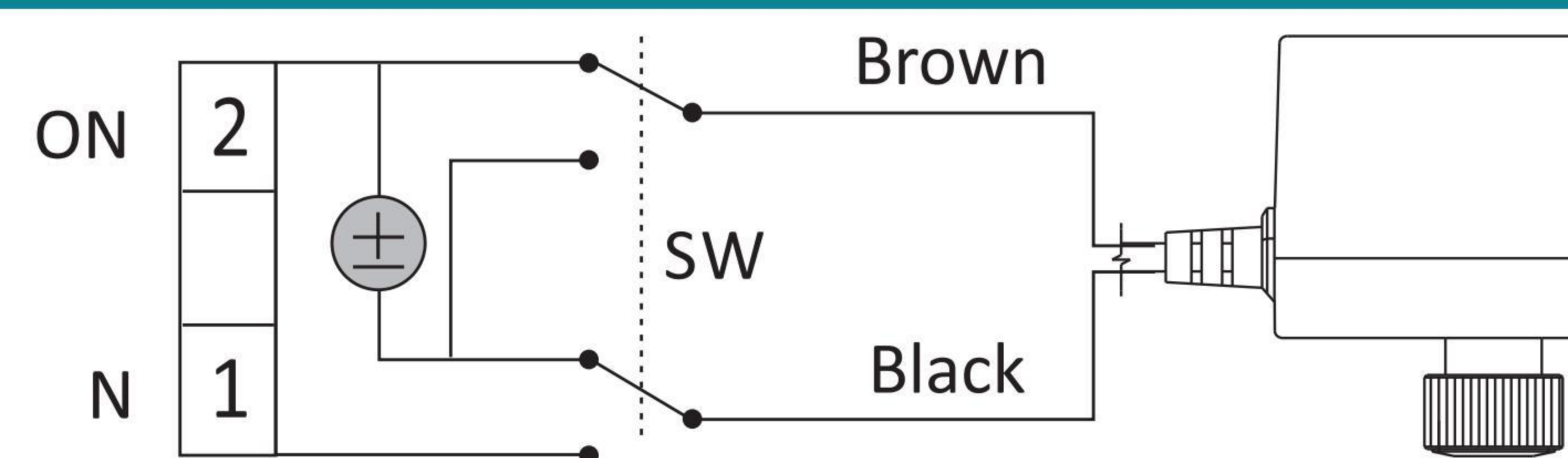
Voltage : 220VAC/110V



1. When the live wire and the neutral wire have power, the blue wire is closed and the valve is opened: the internal power is automatically cut off when it is in place, and the valve remains in the open state.
2. When the live wire and the neutral wire have electricity, the blue wire is disconnected and the valve is closed: when it is in place, the internal power is automatically cut off, and the valve remains in the closed state.

The second line is reversed

Voltage :DC5V/12V/24V



1. SW is a double switch, SW is connected with the black wire, and the valve is open: when it is in place, the internal power will be automatically cut off, and the valve will remain in the open state.
2. The SW is connected to the brown wire, and the valve is closed: When it is in place, the internal power will be automatically cut off, and the valve will remain in the closed state.

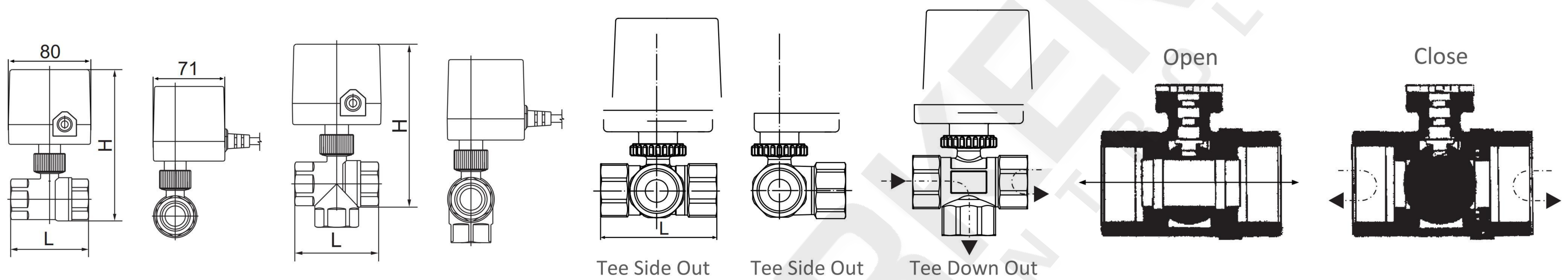


## Installation and Commissioning Requirements

- ◆ The two-way ball valve has no medium flow direction regulation; the medium flow direction of the bottom three-way ball valve is from bottom to left or right-out, or left-in or right-in to bottom-out; side-out tee, middle-in to left-out or right-out, or those who enter left or enter right to exit in the middle.
- ◆ The driver can be installed at any angle, but it must be above the level of the valve body, and there should be at least 30mm space is used for disassembly and assembly, and sufficient maintenance must be maintained with the surrounding pipelines, equipment, and buildings. The repair operation space must be installed in a place that can be reached by maintenance personnel through the manhole.
- ◆ Never apply force to the drive during installation, otherwise the drive will be damaged.
- ◆ When removing the valve body and installing it, never apply force to the valve stem, otherwise the valve stem will deform and cause malfunction.
- ◆ When debugging, it must be observed whether the drive can start or stop reliably. If the ball rotates continuously. The driver must be exchanged, otherwise the seal life will change



## Ball Valve Shape and Cross-Sectional View



## Dimension

Model	Model	Size	Ball Diameter	L	H	Kv	
Two-way electric ball valve	HEAS-215(B)	1/2"	DN15	14	55	124	10
	HEAS-220(B)	3/4"	DN20	18	62	130	15
	HEAS-225(B)	1"	DN25	22	71	135	23
	HEAS-232(B)	1 1/4"	DN32	25	75	142	31
	HEAS-240(B)	1 1/2"	DN40	30	89	152	38
	HEAS-250(B)	2"	DN50	39	101	164	48
Three-way electric ball valve	HEAS-315(B)	1/2"	DN15	10	58	120	7
	HEAS-320(B)	3/4"	DN20	14	61.5	125	10
	HEAS-325(B)	1"	DN25	18	67	135	15
	HEAS-332(B)	1 1/4"	DN32	25	97	142	31
	HEAS-340(B)	1 1/2"	DN40	30	89	152	38
	HEAS-350(B)	2"	DN50	39	101	164	48
	HEAS-315L(B)	1/2"	DN15	10	61	124	7
	HEAS-320L(B)	3/4"	DN20	14	67.5	130	10
HEAS-325L(B)	1"	DN25	18	76.5	135	15	



# HEAS Manual Brass Series Electric Ball Valve

## Description



This series of electric ball valves are used to control the waterway control at the end of the air conditioner. Among them, the thermostat controls the electric valve motor, and the valve is opened or closed through the reverse motor, so as to realize the flow or disconnection of the medium in the pipeline, and then the air is sent through the fan coil to realize the automatic temperature control.

## Features

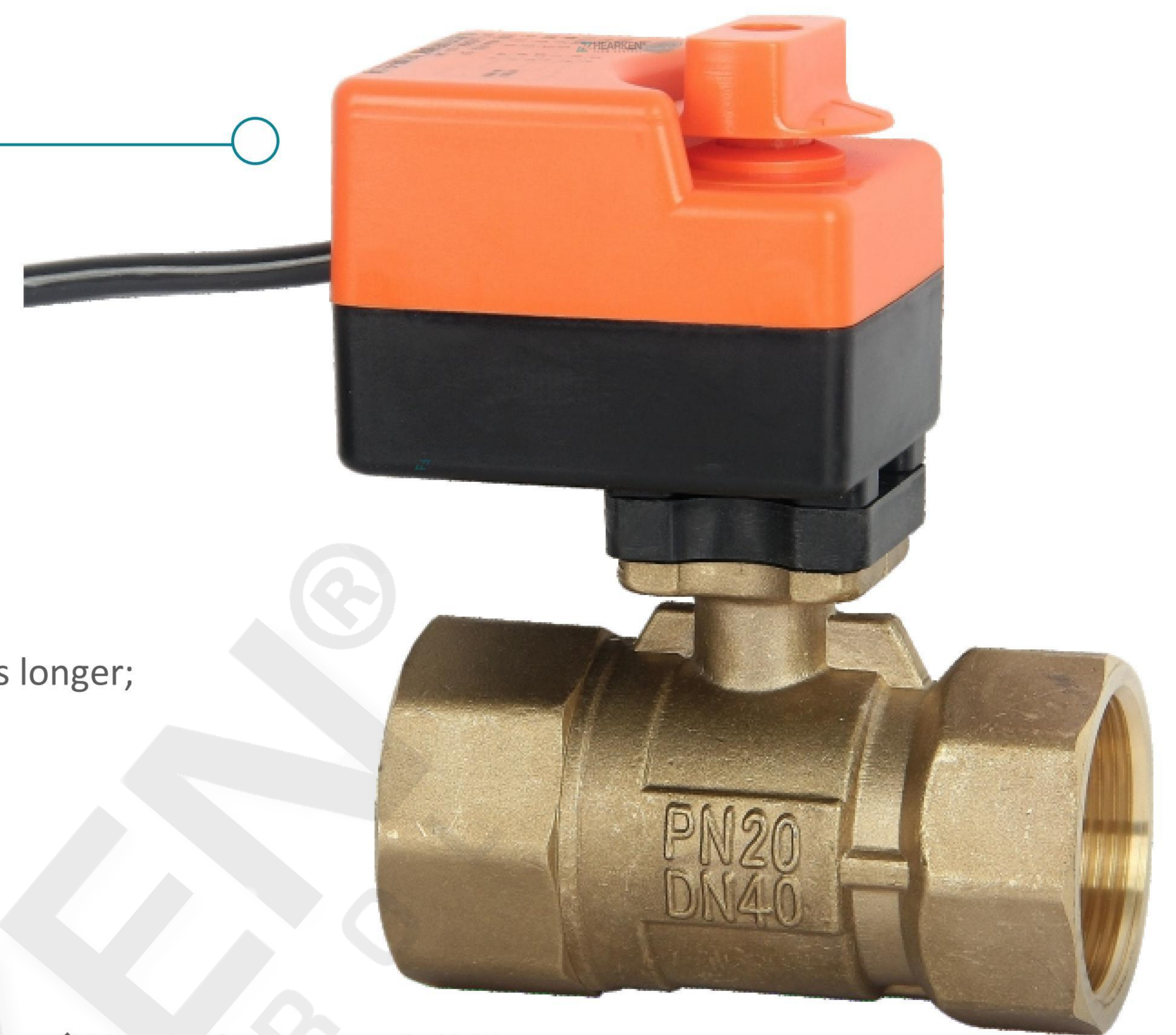


- ◆ Good waterproof and dustproof function (IP54);
- ◆ The power-on time is extremely short, the product is energy-saving, and the motor life is longer;
- ◆ The actuator is easy to disassemble and assemble;
- ◆ The closing pressure is large and the closing is tight; The flexible opening of the valve can effectively prevent water hammer.

## Technical Parameter



- ◆ Power supply: 220VAC(24VAC)±10%, 50Hz
- ◆ Stroke time: 40-50S
- ◆ Nominal pressure: 1.6MPa
- ◆ Power: 2W, torque 4~6N.m
- ◆ Working medium: water, fluid temperature 5-95°C



## Ball Valve Shape and Cross-Sectional View



## Dimension

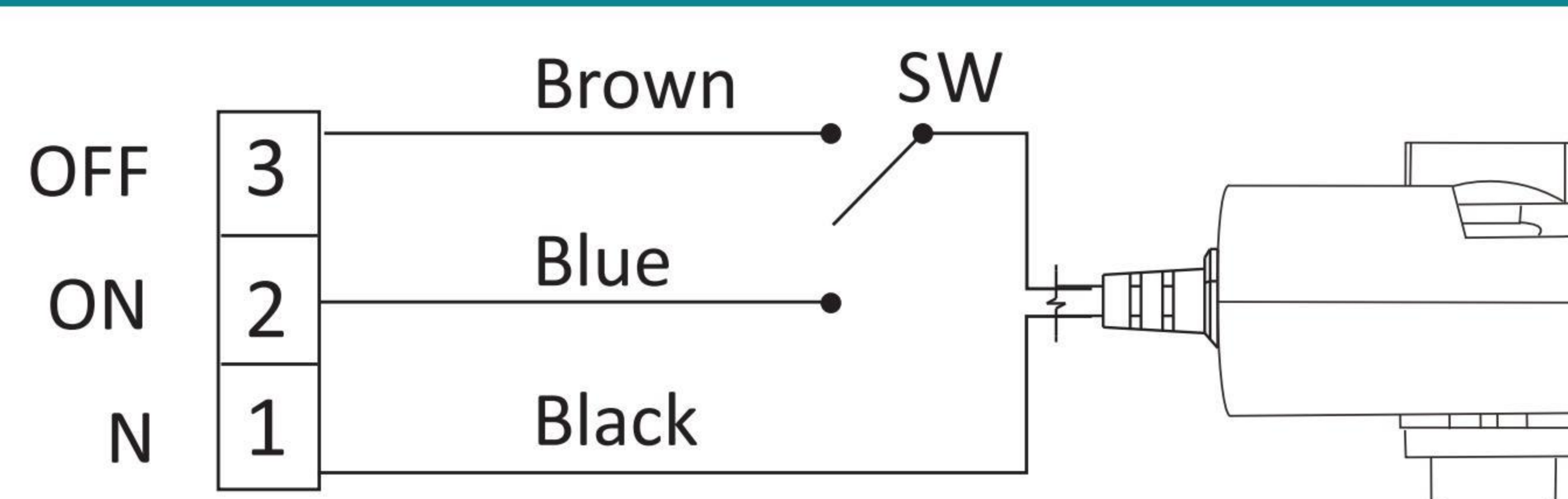
Model	Model	Size	L	H	X	Y	
Two-way electric ball valve	HEAS-215S	1/2"	DN15	75	35	184	75
	HEAS-220S	3/4"	DN20	75	35	184	75
	HEAS-225S	1"	DN25	84	47	196	75
	HEAS-232S	1 1/4"	DN32	100	48	196	75
	HEAS-240S	1 1/2"	DN40	113	56	196	75
	HEAS-250S	2"	DN50	126	70	196	75

Model	Model	Size	L	L1	H	X	Y	
Three-way electric ball valve	HEAS-315S	1/2"	DN15	69	31	27	184	75
	HEAS-320S	3/4"	DN20	71	33	31.5	184	75
	HEAS-325S	1"	DN25	89	46	39	184	75

## Wiring and Related Circuit Schematic Diagram

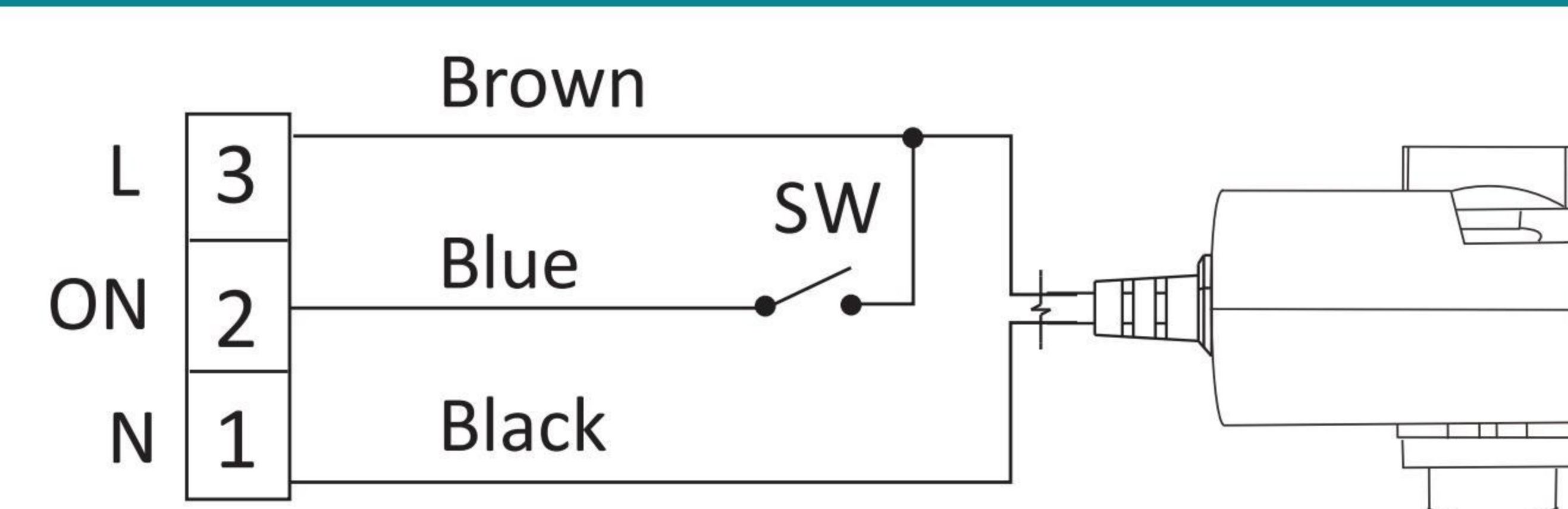
Three lines and two controls

Voltage: 220VAC/24V/110V



Three lines and one control

Voltage: 220VAC/110V



1. The SW is connected with the blue wire, and the valve is open: When it is in place, the internal power will be automatically cut off, and the valve will remain in the open state.
2. The SW is connected to the brown wire, and the valve is closed: When it is in place, the internal power will be automatically cut off, and the valve will remain in the closed state.

1. When the live wire and the neutral wire have power, the blue wire is closed and the valve is opened: the internal power is automatically cut off when it is in place, and the valve remains in the open state.
2. When the live wire and the neutral wire have electricity, the blue wire is disconnected and the valve is closed: when it is in place, the internal power is automatically cut off, and the valve remains in the closed state.



# HEAS Series Electric Ball Valve

## Large Diameter

### Description

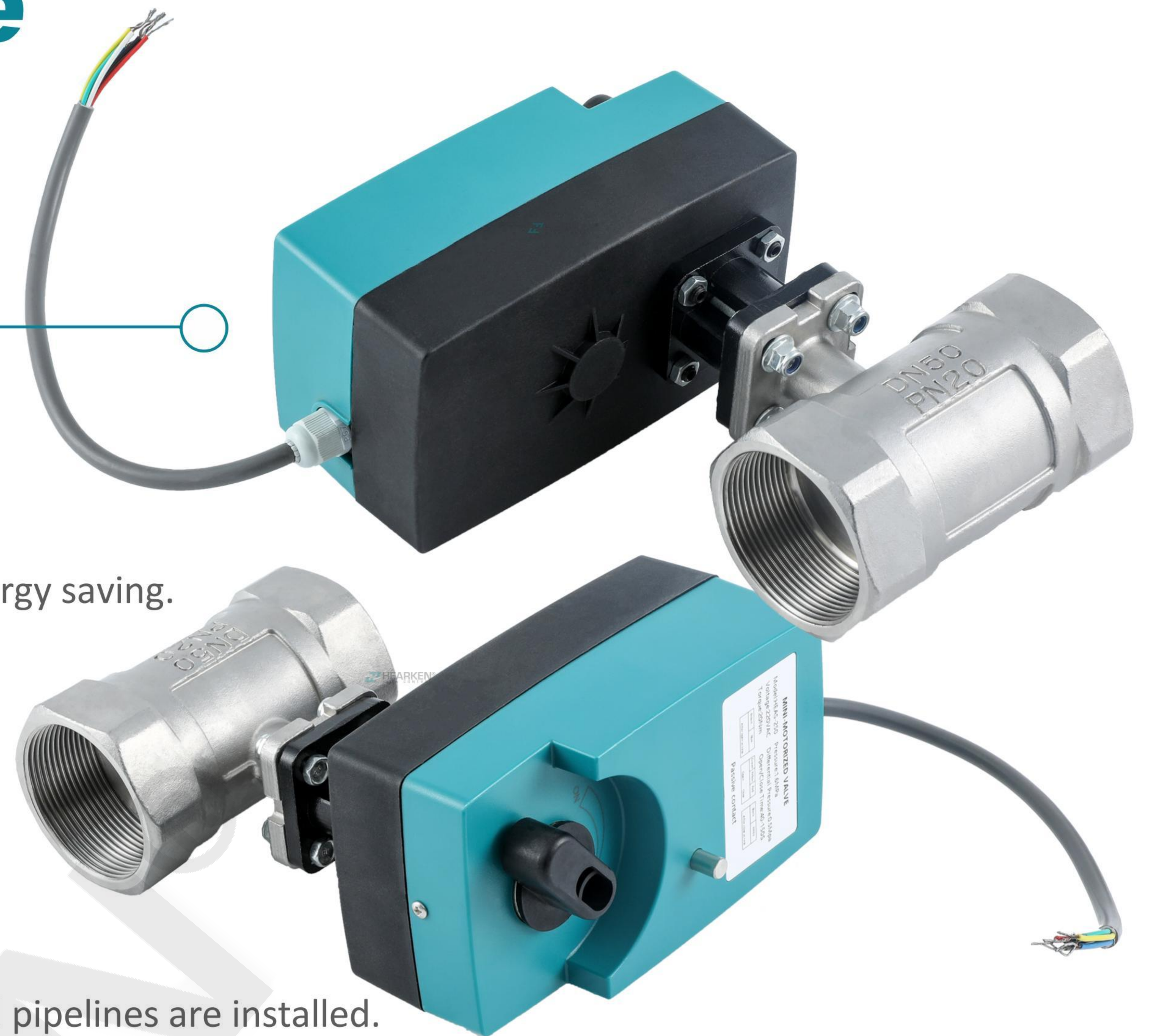


HEAS series electric ball valve is a driver with a force of 4Nm~40Nm. It can be combined with a DN20-DN50 two-way ball valve body, or used in conjunction with a damper. It is widely used in air conditioning, refrigeration, heating and other building automatic control systems. In this way, the medium flow rate in the system can be precisely adjusted, so as to achieve the purpose of controlling temperature, pressure and energy saving.

### Features



- ◆ Equal percentage flow characteristics
- ◆ Integral valve body design, zero leakage
- ◆ 600KPa closing pressure difference, PN20 valve body bearing pressure
- ◆ The actuator can be assembled in 4 directions, making it easier to wire and maintain
- ◆ Built-in micro switch, with in-position break Electric function, longer motor life.
- ◆ Easy to disassemble and assemble the actuator. It can be installed after the equipment and pipelines are installed.
- ◆ The closing pressure is large and the closing is tight. The valve can be opened flexibly, which can effectively prevent water hammer.
- ◆ Good waterproof and dustproof function And tightness (IP54);
- ◆ Straight through water flow, no slag blocking, KV value is much greater than ordinary two-way valve;

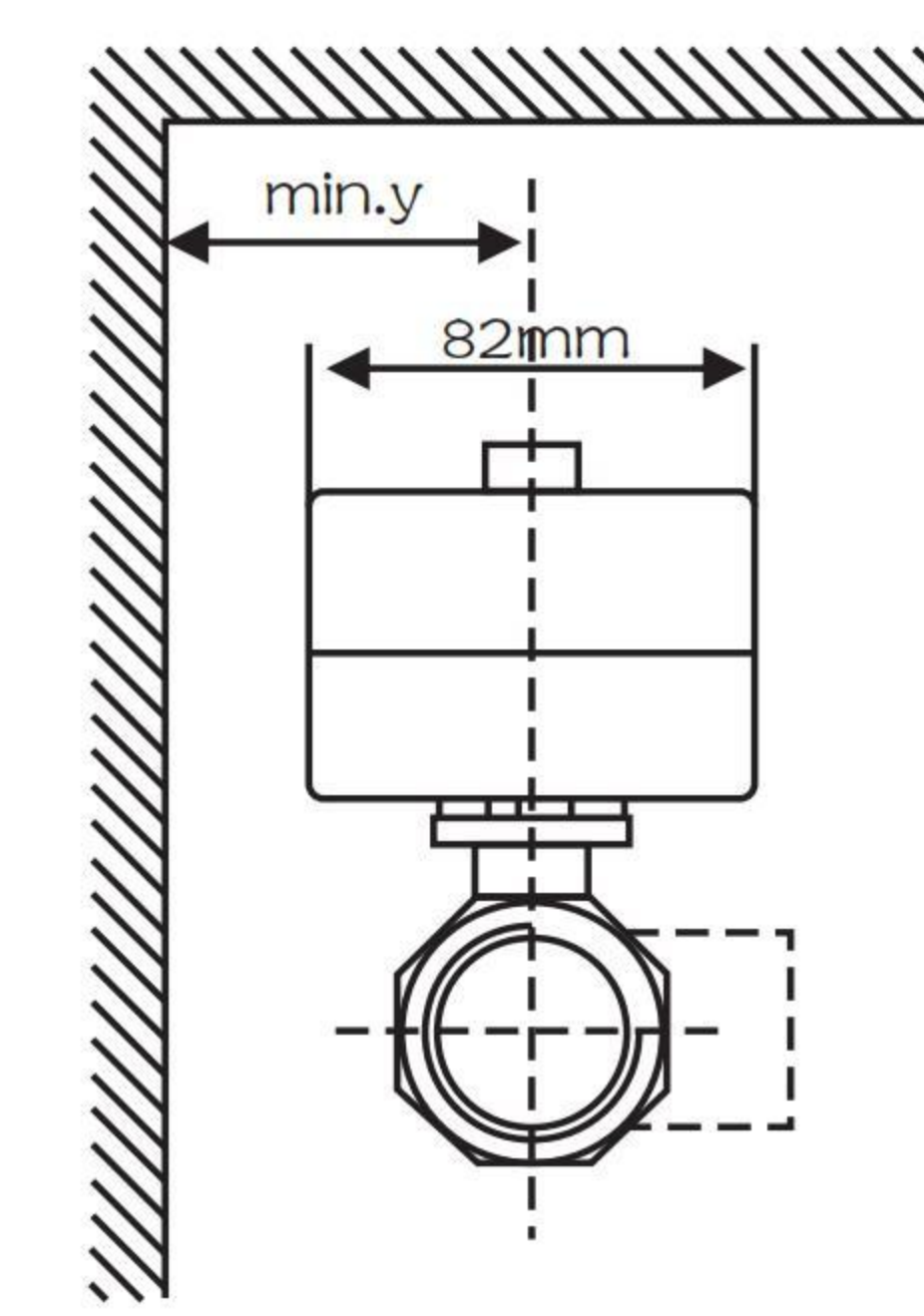
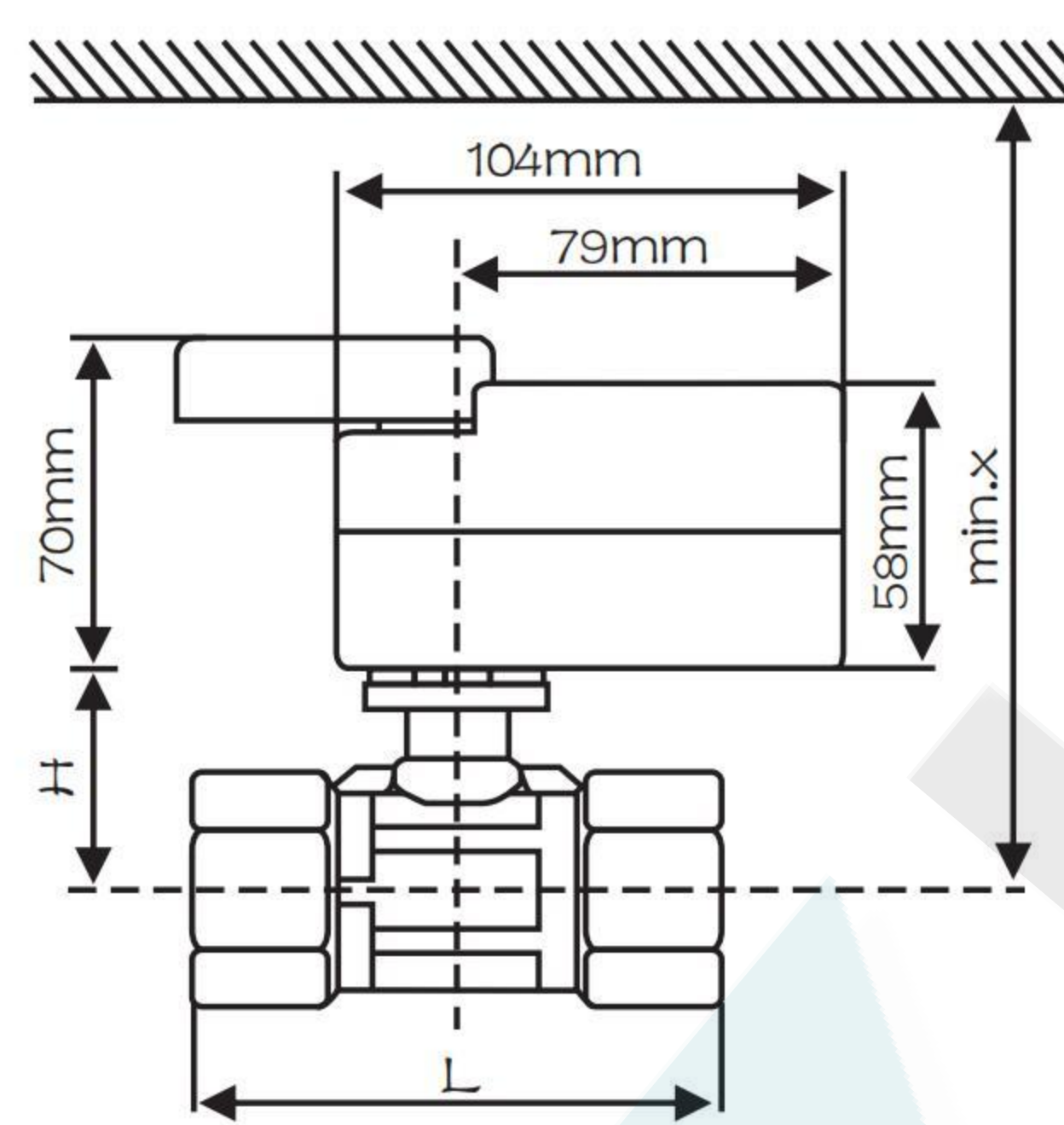


### Technical Parameter



- ◆ Power supply voltage: AC220V or AC24V
- ◆ Control mode: switch type, passive type or intelligent type
- ◆ Output torque: 4,10,16,25,40Nm
- ◆ Valve travel time: open: 40s-150s close: 40s-150s
- ◆ Nominal pressure: 1.6MPa
- ◆ Working medium: cold, hot water or low pressure steam
- ◆ Fluid temperature: 5~95°C

### Ball Valve Shape and Cross-Sectional View



### Dimension

Model	Model	Size	Ball Diameter	L	H	X
Two-way electric ball valve	HEAS-220	3/4"	DN20	14	68	41
	HEAS-225	1"	DN25	18	89	42
	HEAS-232	1 1/4"	DN32	25	94	49
	HEAS-240	1 1/2"	DN40	28	100	49
	HEAS-250	2"	DN50	35	120	55
	HEAS-265	2 1/2"	DN65	50	134	72
Three-way electric ball valve	HEAS-320	3/4"	DN20	14	68	41
	HEAS-325	1"	DN25	18	89	42
	HEAS-332	1 1/4"	DN32	25	97	49
	HEAS-340	1 1/2"	DN40	32	118	56
	HEAS-350	2"	DN50	38	135	60

### Wiring Diagram

Blue	Black	Brown	Brown	Blue	Green	Yellow	Red	Black	White								
Public line On Off			After opening			L N L On Off			After closing								
On-off control			Passive contact control														
AC24V			Input			Com			Feedback								
1 2			+ 3			- 4			+ 5								
Analog intelligent control																	

The valve body is connected and adjusted: long press the K1 button for 5 seconds, wait When the LED1 light is on, release it and press it again to allow the actuator to run up and down for a stroke.



# HEAS Stainless Steel Series Electric Ball Valve

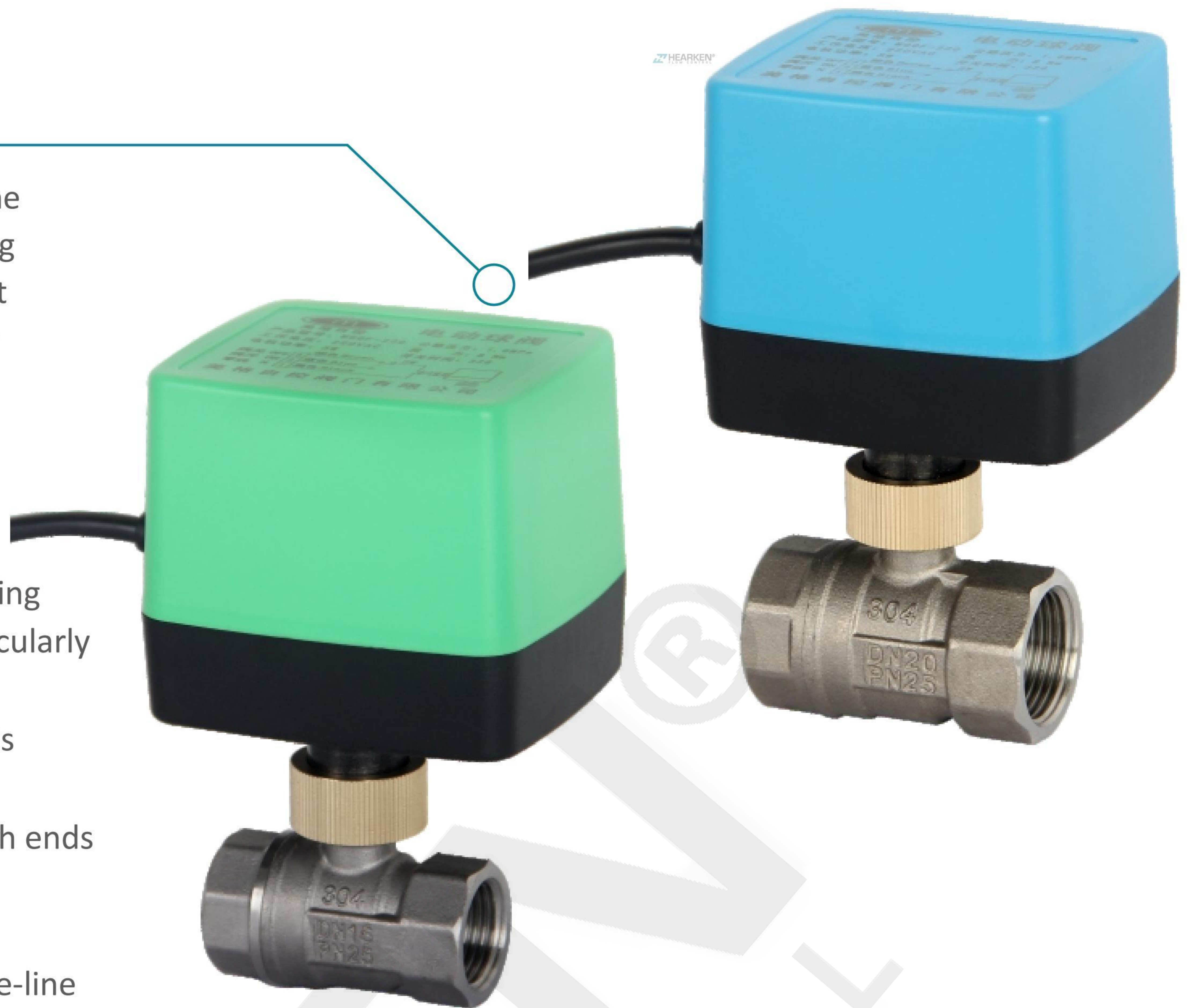
## — Energy-efficient

### Description

This series of electric ball valves are composed of two parts: the valve body and the driver. It has the advantages of simple structure, reliable work, strong fluid passing capacity and energy saving. It can be widely used for on-off control of cold and hot water in heating, central air-conditioning, solar water heating systems, and water treatment systems; it can also be used for on-off control of low-pressure steam. Varieties include two-position two-way and two-position three-way.

### Features

- ◆ Built-in high-quality micro switch, the motor will not pass after the valve opening and closing process is completed Electricity, so long life, energy saving, and particularly safe.
- ◆ The shell is made of high-strength flame-retardant engineering plastic, which is durable.
- ◆ Adopt high-quality PTFE sealing ring, and install special elastic structure at both ends to ensure Ensure that the seal is stable and reliable and the seal life is greatly extended.
- ◆ Three-wire one-control ball valve driver has a built-in control circuit board, one-line control, It can be equipped with a three-speed switch, which can realize multiple valves in parallel and save thermostats.
- ◆ Good waterproof and dustproof function (IP54)
- ◆ Especially the second-line power-off reset, can replace the solenoid valve.

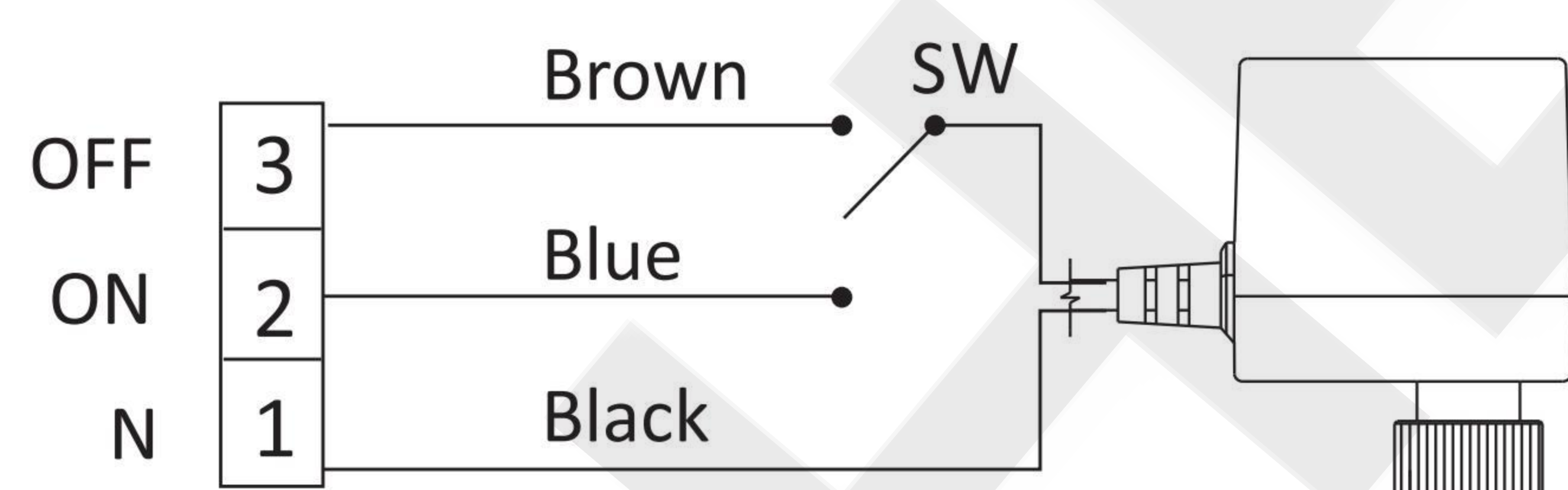


### Technical Parameter

- ◆ Drive voltage: 220VAC (or AC 12V, 24V, 110V; DC 5V, 12V, 24V for choice)
  - ◆ Power consumption: AC 5W; DC 1.5W (only in the process of valve opening and closing)
  - ◆ Valve body pressure: 2.5MPa
  - ◆ Allowable pressure difference:  $\leq 0.6$ MPa
- Applicable medium: cold water, hot water and low-pressure steam ( $\leq 0.4$ MPa)
- ◆ Opening and closing time: 360 degrees to two links for about 56 seconds, three links for about 108 seconds; 90 degrees to two and three links for about 36 seconds; DC open 8 seconds, off for 11 seconds.
  - ◆ Applicable medium temperature: 1-130°C
  - ◆ Applicable ambient temperature: 0-65°C
  - ◆ Connection method: pipe thread G, tapered inner pipe thread (also can be customized according to user requirements)

### Wiring and Related Circuit Schematic Diagram

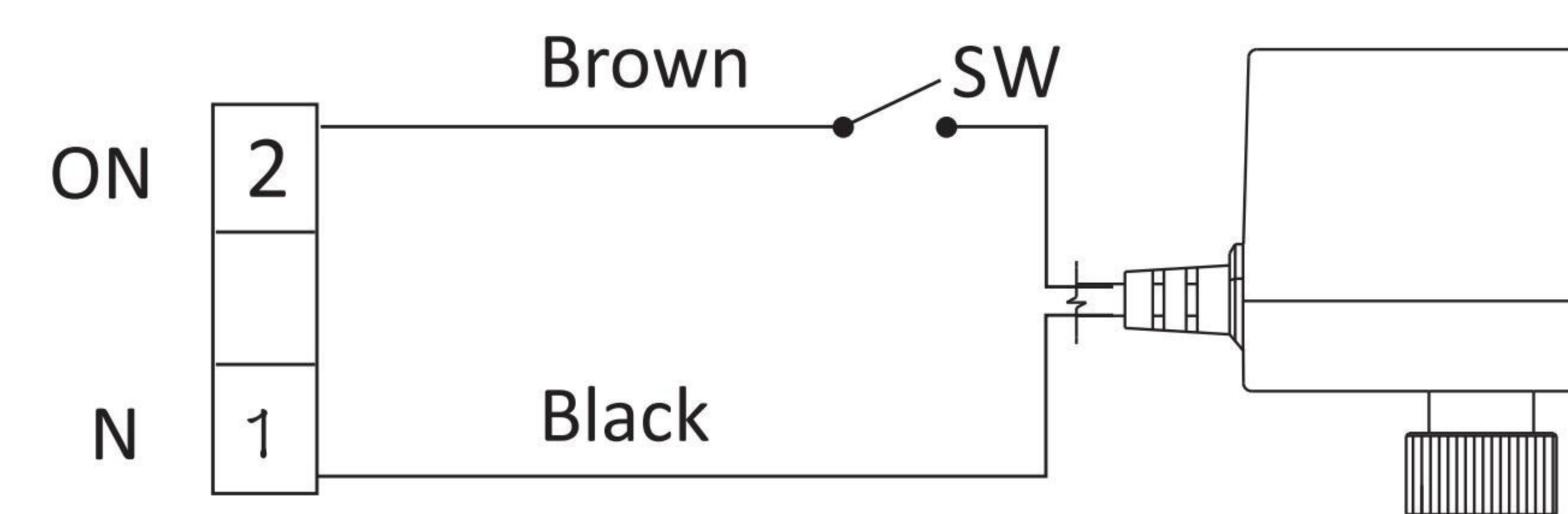
Three lines and two controls Voltage: 220VAC/12V/24V/110V; DC5V/12V/24V



1. The SW is connected with the blue wire, and the valve is open: When it is in place, the internal power will be automatically cut off, and the valve will remain in the open state.
2. The SW is connected to the brown wire, and the valve is closed: When it is in place, the internal power will be automatically cut off, and the valve will remain in the closed state.

Two-wire power failure reset

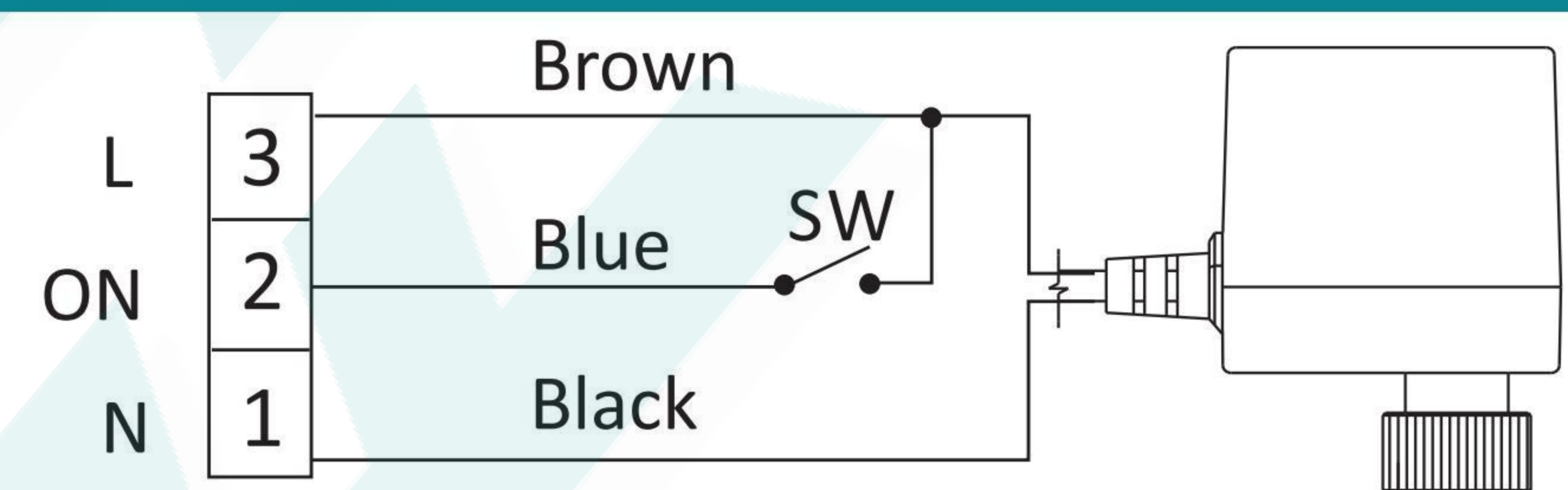
Voltage : 220VAC; DC9V/12V/24V



1. Normally closed control mode: when the brown wire is closed, the valve opens; when it is in place, the internal power is automatically cut off, and the valve remains in the open state.
  2. Normally closed control mode: when the brown wire is disconnected, the valve is closed; when it is in place, the internal power is automatically cut off, and the valve remains in the closed state.
  3. Normally open control mode: when the brown wire is closed, the valve is closed; when it is in place, the internal power is automatically cut off, and the valve remains in the closed state.
  4. Normally open control mode: when the brown wire is disconnected, the valve opens; when it is in place, the internal power is automatically cut off, and the valve remains in the open state.
- Note: The power-on time is not less than 2 minutes (otherwise the backup power supply cannot be triggered to close or open the valve)

Three lines and one control

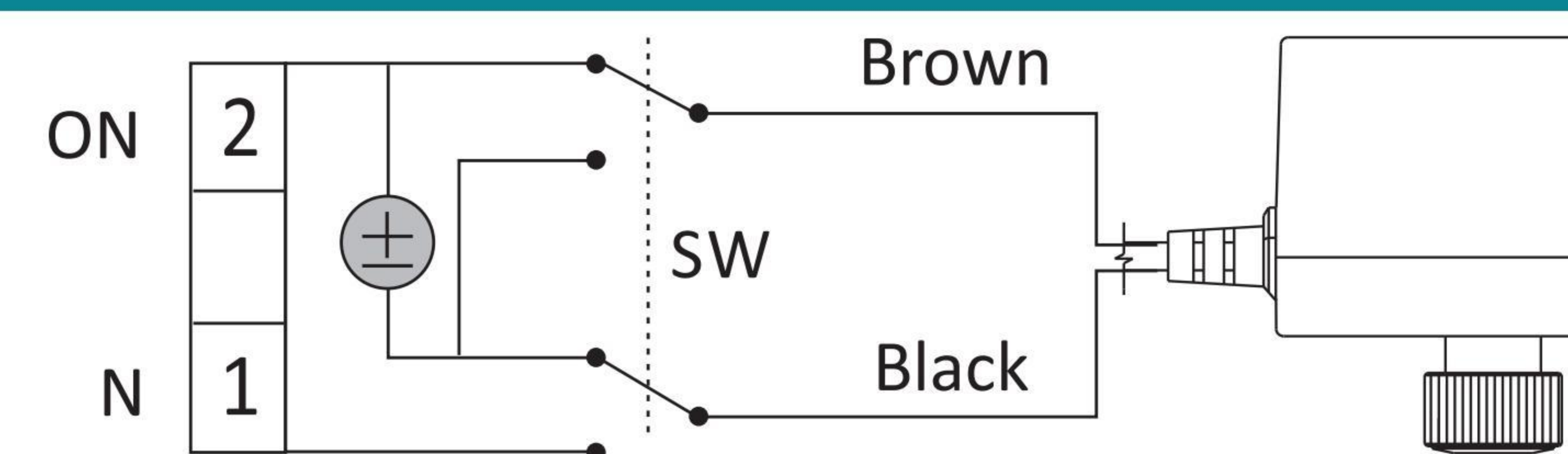
Voltage : 220VAC/110V



1. When the live wire and the neutral wire have power, the blue wire is closed and the valve is opened: the internal power is automatically cut off when it is in place, and the valve remains in the open state.
2. When the live wire and the neutral wire have electricity, the blue wire is disconnected and the valve is closed: when it is in place, the internal power is automatically cut off, and the valve remains in the closed state.

The second line is reversed

Voltage : DC5V/12V/24V



1. SW is a double switch, SW is connected with the black wire, and the valve is open: when it is in place, the internal power will be automatically cut off, and the valve will remain in the open state.
2. The SW is connected to the brown wire, and the valve is closed: When it is in place, the internal power will be automatically cut off, and the valve will remain in the closed state.

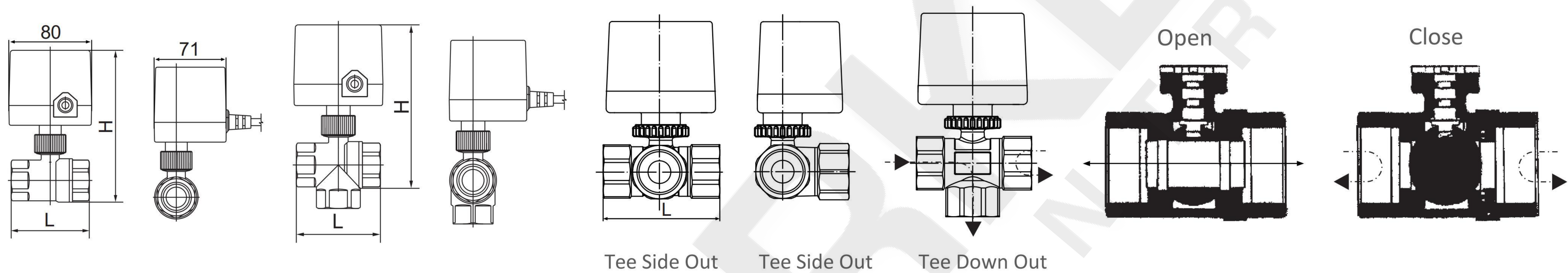


## Installation and Commissioning Requirements

- ◆ The two-way ball valve has no medium flow direction regulation; the medium flow direction of the bottom three-way ball valve is from bottom to left or right-out, or left-in or right-in to bottom-out; side-out tee, middle-in to left-out or right-out, or those who enter left or enter right to exit in the middle.
- ◆ The driver can be installed at any angle, but it must be above the level of the valve body, and there should be at least 30mm space is used for disassembly and assembly, and sufficient maintenance must be maintained with the surrounding pipelines, equipment, and buildings. The repair operation space must be installed in a place that can be reached by maintenance personnel through the manhole.
- ◆ Never apply force to the drive during installation, otherwise the drive will be damaged.
- ◆ When removing the valve body and installing it, never apply force to the valve stem, otherwise the valve stem will deform and cause malfunction.
- ◆ When debugging, it must be observed whether the drive can start or stop reliably. If the ball rotates continuously. The driver must be exchanged, otherwise the seal life will change



## Ball Valve Shape and Cross-Sectional View



## Dimension

Product	Model	Size	Ball Diameter	L	H	Kv
Stainless steel two-way electric ball valve	HEAS-215P	1/2"	DN15	14	53	10
	HEAS-220P	3/4"	DN20	17	58	13.5
	HEAS-225P	1"	DN25	20	64.5	19
	HEAS-232P	1 1/4"	DN32	30	83	38

## Abnormal Situation and Troubleshooting Methods

Serial No.	Unusual Phenomenon	Reason	Troubleshooting Method
1	Open valve and close valve position are opposite	Connection error	Switch valve open line and valve close line
2	Actuator does not move	Wiring error, circuit burned out	Check the power supply and wiring
		Water in the actuator or damage to the motor	Replace the actuator
3	Cracking at the threaded connection	The connection thread does not match, the installation is not standardized or the force is too large	Replace the valve body
4	The valve cannot be fully open or fully closed	The pipe is blocked by debris and the water quality is too poor	Clean up pipe debris or install pre-filter