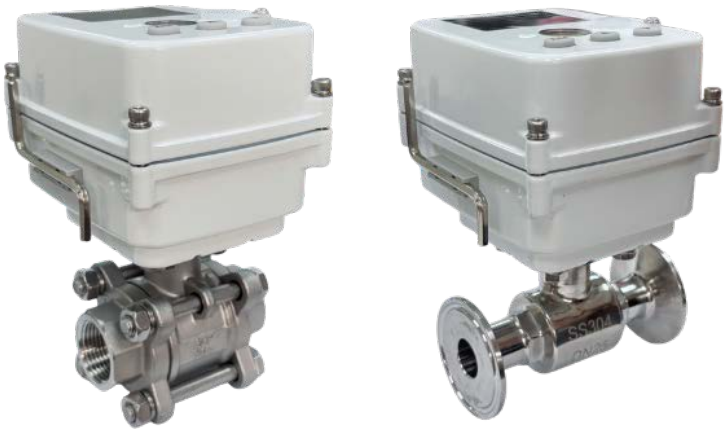
Electric Ball Valve

EBV Series



Product Description

The EBV series electric ball valves are high-performance control valves, offering both V-port and stainless steel sanitary ball valves to meet requirements for precise flow control and hygienic applications.

With a compact integrated design, high output torque, and fast response, they are suitable for gases, liquids, and light oils. Supporting 4-20mA and RS485 Modbus, the valves can be easily integrated into automation systems for stable and accurate control.

Featuring a fast actuation time of approximately 2.5 seconds, the EBV series provides significantly quicker response than conventional electric valves, improving system efficiency and responsiveness.

The V-port type ensures precise flow regulation, while the sanitary type with Tri-Clamp connection enables easy cleaning, reduced contamination risk, and is ideal for food, pharmaceutical, and biotech applications.

Specifications

Model	EBV-05-15V	EBV-05-20V	EBV-05-25V	EBV-05-25TC	EBV-05-40TC	EBV-05-50TC
Nominal Size	DN15	DN20	DN25	DN25	DN40	DN50
Ball Type	V-Port			O-Port		
Connection	G1/2”	G3/4”	G1”	ϕ50.5mm Tri-Clamp	ϕ64mm Tri-Clamp	ϕ77.5mm Tri-Clamp
Operating Pressure	0–16 Bar					
Media	(Liquids, Gases, Light Oil…etc.)					
Power Supply	DC 20-28V					
Rated Power	15W					
Control Signal	4–20 mA、RS485					

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Specifications

Model	EBV-05-15V	EBV-05-20V	EBV-05-25V	EBV-05-25TC	EBV-05-40TC	EBV-05-50TC
Feedback Signal	4–20 mA、RS485					
Repeatability	≤ 1%					
Medium Temperature	-20 ~ 130°C (PTFE)					
Ambient Temperature	-20 ~ 65°C					
Actuation Time	2.5 sec(Full Open / Close)					
Rated Torque	15 N·m					
Leakage Class	Class VI (Zero Leakage)					
Lifetime	≥ 80,000 cycles					
Material	Body / Ball : SS304 Stainless Steel SS304 Stem : SS304 Stainless Steel SS304 Seat : PTFE Actuator Housing : Die-cast Aluminum					
Protection Class	IP65					
Electrical Interface	PG13.5，600 mm cable					
Display	2.4” LCD					

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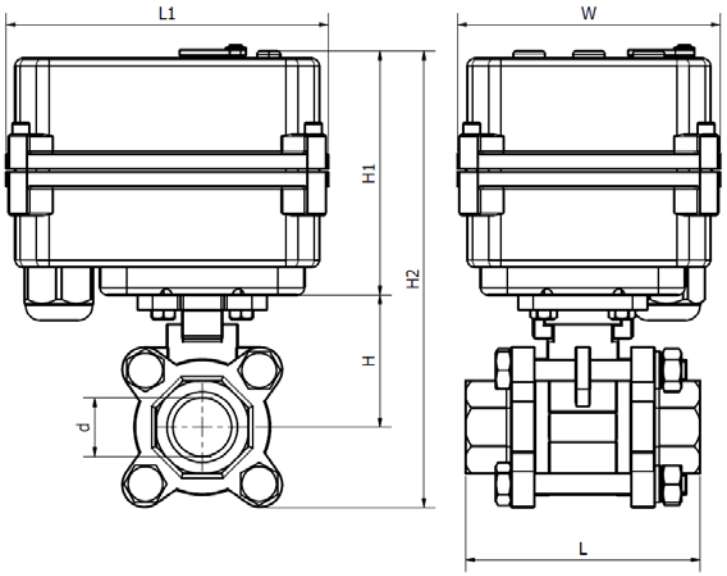
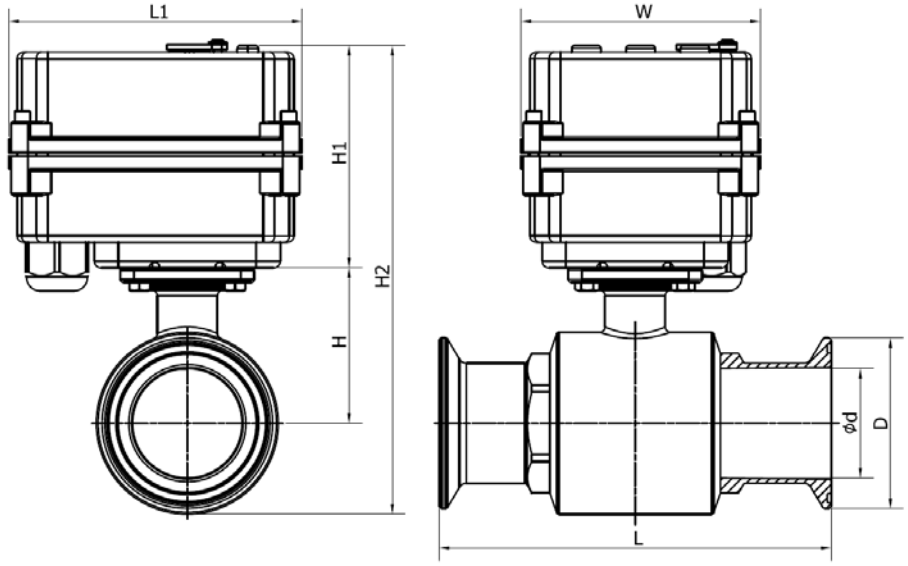


Model	EBV-05-15V	EBV-05-20V	EBV-05-25V
L1	110 mm	110 mm	110 mm
H1	82 mm	82 mm	82 mm
H	42 mm	48 mm	55 mm
H2	124 mm	130 mm	137 mm
W	90 mm	90 mm	90 mm
d	ϕ15 mm	ϕ20 mm	ϕ25 mm
L	72 mm	80 mm	85 mm



Model	EBV-05-25TC	EBV-05-40TC	EBV-05-50TC
L1	110 mm	110 mm	110 mm
H1	82 mm	82 mm	82 mm
H	50 mm	67 mm	74 mm
H2	132 mm	149 mm	156 mm
W	90 mm	90 mm	90 mm
d	ϕ22 mm	ϕ41 mm	ϕ52 mm
D	ϕ50.5 mm	ϕ64 mm	ϕ77.5 mm
L	117 mm	155 mm	155 mm

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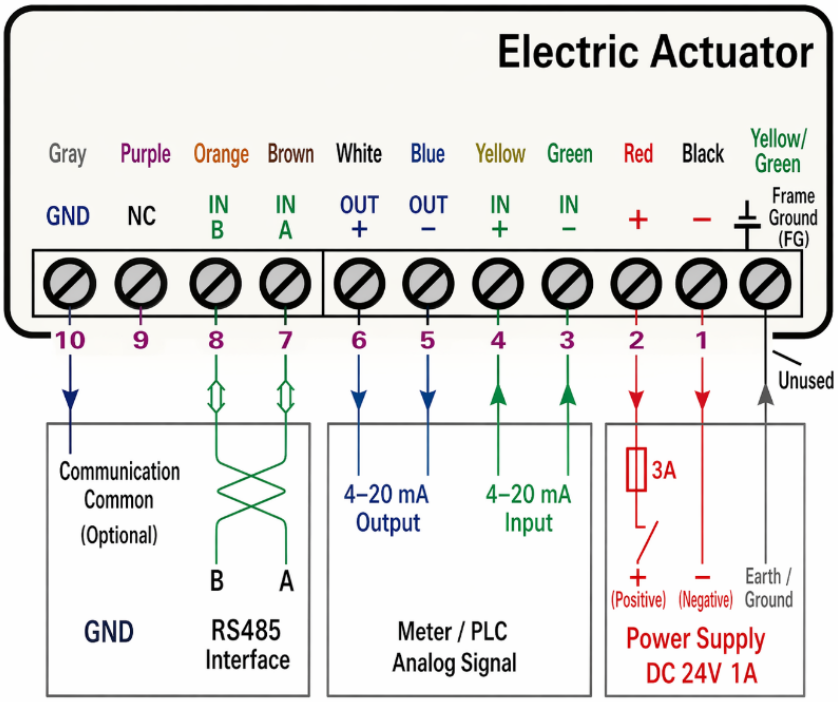
Wiring Instructions



Terminal 0：Ground (Yellow/Green wire)
Terminal 1：Power Supply Negative (Black wire)
Terminal 2：Power Supply Positive (Red wire)
Terminal 3：Analog Signal Input Negative (Green wire)
Terminal 4：Analog Signal Input Positive (Yellow wire)
Terminal 5：Analog Signal Feedback Negative (Blue wire)
Terminal 6：Analog Signal Feedback Positive (White wire)
Terminal 7：RS485 Communication A (Brown wire)
Terminal 8：RS485 Communication B (Orange wire)
Terminal 9：Reserved (Purple wire)
Terminal 10：RS485 Communication GND (Gray wire)

Gray	Purple	Orange	Brown	White	Blue	Yellow	Green	Red	Black	Yellow/Green
GND 10	**9**	**B 8**	**A 7**	**+ 6**	**– 5**	**+ 4**	**– 3**	**+ 2**	**– 1**	≒
↓ RS485 Communication GND		↕ RS485 Communication	↕	↓ Analog Signal Feedback	↓	↑ Analog Signal Input	↑	↑ Power Supply	↑	↑ Ground

Terminal Wiring Diagram

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Precautions & Warranty

To ensure proper operation and safety, please verify that the power supply voltage matches the valve's rated voltage before installation to avoid malfunction or damage.

This product is covered by a warranty of 12 months from the date of receipt or 80,000 operating cycles, whichever comes first.

During the warranty period, if any failure is caused by product quality issues, we will provide free repair or replacement of parts/products, including round-trip shipping and labor costs.

The following conditions are not covered under warranty, and any related repair costs shall be borne by the user:

- Exceeding the warranty period or operating cycle limit
- Damage caused by improper use, including but not limited to:
  - Power supply exceeding the rated voltage
  - Ambient or media temperature exceeding specified limits
  - Use of media outside specified conditions
  - Long-term submersion or use in improper environments
  - Damage caused by external force or improper operation
  - Normal wear of valve body or ball due to long-term use
- Damage caused by unauthorized disassembly, modification, or repair