

Series W-ECBV-20T

Electric Control Ball Valve

Size: DN15-DN50

W-ECBV series electric control ball valves are widely used in fluid control of central air conditioning, heating, water treatment, industrial processing and other systems. The actuator model used in conjunction is W-A13 series. The actuator receives the standard regulating or switching signals and rotates the ball to the specified position.

Features

- Unique V-shaped inlet design realizes accurate equal percentage flow control characteristics
- Concise structure of flow passage largely avoids blockage, safe and reliable
- High flow capacity, low resistance loss
- Double-seal design, no leakage and double-security
- Ultra-silence channel to ensure quiet environment
- High shut-off pressure, high pressure
- Equipped with manual switch and opening indication

Working Principle

W-ECBV series electric control ball valve is driven by the angular travel actuator W-A13. The actuator drives the valve to change the flow area between the ball and the valve seat by receiving the regulating signal (0 (2)-10V or 0 (4)-20mA) or switching signal, so as to control the flow rate passing through the valve and realize the automatic regulation function.

Material

Component	Material	Standard
Valve Body	Brass	HPb59-1
Valve Seat	PTFE+EPDM	
Valve Ball	DN15-25: Brass HPb59-1 DN32-50: Stainless Steel 304	
Valve Shaft	Brass	HPb59-1
Seal Ring	HNBR	

Product Model

Model	Type	Size	Kvs	Supporting Actuator
W-ECBV2015A(F)-20T	Two-way valve	DN15	5.5	W-A13A series
W-ECBV2020A(F)-20T	Two-way valve	DN20	8	W-A13A series
W-ECBV2025A(F)-20T	Two-way valve	DN25	9	W-A13A series
W-ECBV2032B(F)-20T	Two-way valve	DN32	14.5	W-A13B series
W-ECBV2040C(F)-20T	Two-way valve	DN40	25.9	W-A13C series
W-ECBV2050C(F)-20T	Two-way valve	DN50	39	W-A13C series

Model	Type	Size	Kvs	Side Port Kvs	Supporting Actuator
W-ECBV3015A(F)-20T	Three-way valve	DN15	5.5	3.4	W-A13A series
W-ECBV3020A(F)-20T	Three-way valve	DN20	8	3.4	W-A13A series
W-ECBV3025A(F)-20T	Three-way valve	DN25	9	4.9	W-A13A series
W-ECBV3032B(F)-20T	Three-way valve	DN32	14.5	8	W-A13B series
W-ECBV3040C(F)-20T	Three-way valve	DN40	25.9	12.5	W-A13C series
W-ECBV3050C(F)-20T	Three-way valve	DN50	39	20	W-A13C series



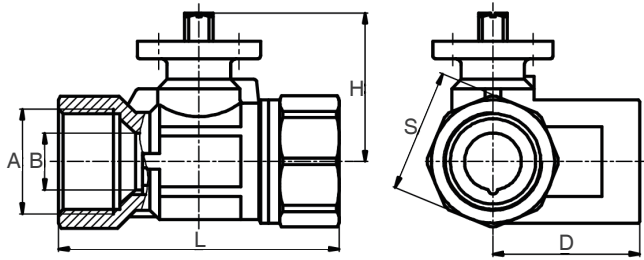
Specification

- Nominal Pressure: PN20
- Working Temperature: 5~95°C
- Protection Level: IP54
- Connection Standard: GB/T 7307-2001
- Turn-off Differential Pressure: 600Kpa
- Flow Characteristics: Equal percentage characteristic curve
- Leakage Rate: Control path $\leq 0.01\%Kvs$
Three-way bypass $\leq 0.5\%Kvs$
- Regulating Mode: Angular travel 90°
- Working Medium: Air conditioning cold and hot water, $\leq 50\%$ ethylene glycol/propylene glycol solution

Model Description

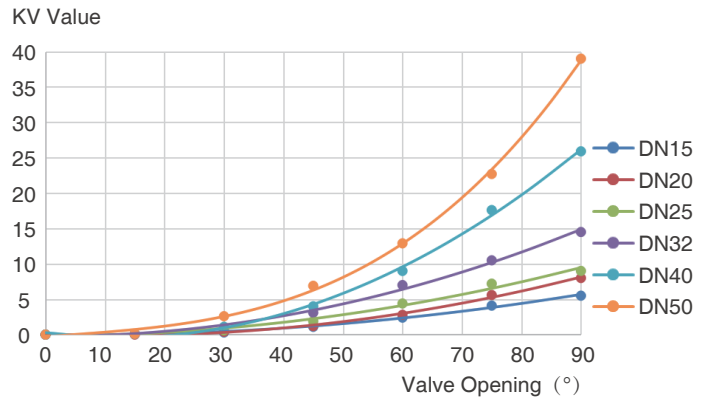
W	WATTS	W-	ECBV	2	015	A	F	20	T
ECBV	Electric control ball valve								
Diameter									
2: Two-way									
3: Three-way									
Size									
015-DN15:									
025-DN25:									
040-DN40:									
Supporting actuator									
A: 3.5Nm									
B: 5Nm									
C: 10Nm									
Blank: Not configured									
Control mode									
Blank: regulating type									
F: on-off type									
Pressure-bearing grade PN20									
Valve body material									
Copper material									

Installation Dimensions

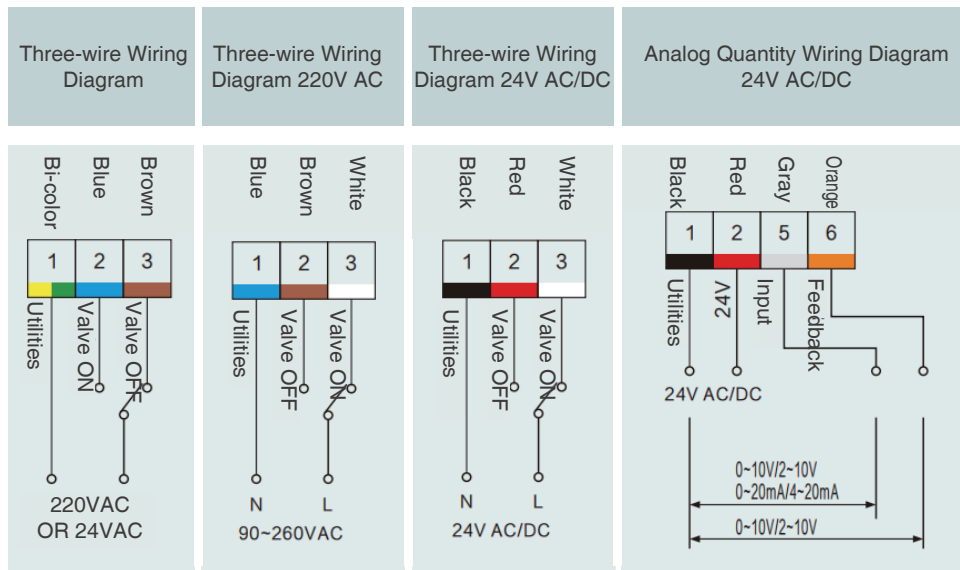


Size	Thread A	Size parameter (mm)				
		L		H	D	S
DN15	G 1/2"	Two-way	Three-way	39	30.5	20
DN 20	G 3/4"	68	68	43	32	32
DN 25	G 1"	89	89	47	46.5	39
DN 32	G 1-1/4"	103	99	52.5	49	48
DN 40	G 1-1/2"	113	110	57	52	55
DN 50	G 2"	128	123	62	69	67

Characteristic Curve

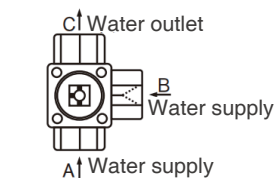
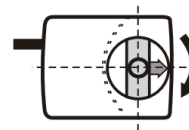


Wiring Diagram

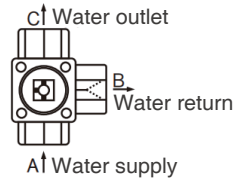
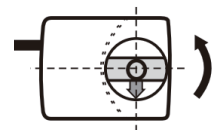


Installation Instruction

1. The two-way control ball valve is recommended to be installed in the return pipe of the system to reduce the thermal stress on the valve;
2. The three-way control ball valve can be used in the shunting or mixed-flow system respectively. When installing, attention shall be paid to the direction of the T-shaped marking slot and switch at the top of the valve stem, as detailed in the schematic diagram below;
3. The ball valve can be installed horizontally or vertically, but it cannot be installed upside down;
4. The product leaves the factory in a closed state.



Schematic Diagram of Mixed-flow Installation



Schematic Diagram of Shunting Installation