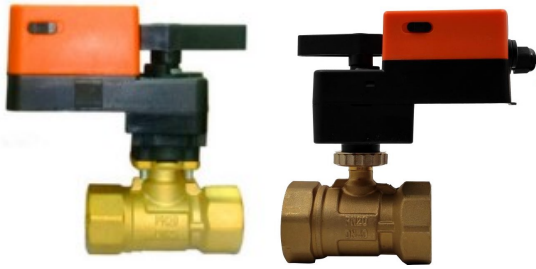


Control Ball Valve



Description

Winner control ball valve consists of WAV4-... series rotary actuator and W8BV... series ball valve. Flow characteristic guarantees the valve performances of stability. Control ball valves are widely used in HVAC system, heating system, water treatment equipment, and water running control in industrial automation, such as: AHU, fresh air-handling unit, differential

pressure control unit and heat ex-changer for flow regulation and on/off control.

Application

HVAC system, Heating system, Water treatment system, Industrial equipment

Operational mode

Winner control ball valve is motor-operated by a type of WVA4-1..., WAV4-2..., and WAV4-3... actuator. The actuator is controlled by a modulating on/off, 3-point or proportional control system and move the ball of the valve, to the opening position dictated by the control signal.

Technical data--Valve body:

Medium: cold/hot water, with 50% glycol

Temperature of medium: 2°C...90°C

Rated pressure: PN20

Pipe connector: internal thread

Ambient temp. range: -5...+60°C; 0...90%RH

Size: 1/2" -2"

Valve type: 2-way and 3-way

Flow characteristic: equal percentage, on/off

Material

Valve body: forged brass, Hpb59-1,SS304
stem: EPDM or FKM

Seal: ball: EPDM+PTFE

Ball: SS304 or Hpb59-1

Valve connector: Hpb59-1 or PC

Valve spindle: aluminum alloy

Equal percentage valve body		DN(mm)	Inch	Kvs(m ³ /h)	ΔPmax (MPa)	Δ Ps (KPa)
Model No.						
W8BV215Z04	2-way	DN15	1/2"	4	1 Mpa	1400
W8BV220Z06		DN20	3/4"	6	1 Mpa	1400
W8BV225Z10		DN25	1"	10	1 Mpa	1400
W8BV232		DN32	1 1/4"	16	0.6 Mpa	1400
W8BV240		DN40	1 1/2"	25	0.6 Mpa	1400
W8BV250		DN50	2"	40	0.6 Mpa	1400
WCBV315	3-way	DN15	1/2"	4	1 Mpa	1400
WCBV320		DN20	3/4"	6	1 Mpa	1400
WCBV325		DN25	1"	10	1 Mpa	1400
WCBS332		DN32	1 1/4"	16	0.6 Mpa	1400
WCBS340		DN40	1 1/2"	25	0.6 Mpa	1400
WCBS350		DN50	2"	40	0.6 Mpa	1400

The connection of w8bv and wsbv series valve body and actuator is thread connection. WCBS is clasp connection.

On-off type valve body	Inner Dia.		Inch	Kvs(m ³ /h)	ΔPvmax(KPa)	Δ Ps(KPa)
Model No.						
W8BV215	12mm	2-way	1/2"	6.15	1000	1400
W8BV220	15mm		3/4"	10.5	1000	1400
W8BV225	20mm		1"	16.1	1000	1400
W8BV315	10mm	3-way	1/2"	3.95	1000	1400
W8BV320	12mm		3/4"	6.8	1000	1400
W8BV325	18mm		1"	15.8	1000	1400

Full port stainless steel 304 Model No.	Description	Inner Dia.	Inch	Kvs(Cvs)	Material
WSBV215	2-way	15mm	1/2"	8.97/10.47	SS304
WSBV220	2-way	20mm	3/4"	15.94/18.60	SS304
WSBV225	2-way	25mm	1"	24.85/29	SS304
WSBV315	3-way	15mm	1/2"	8.97/10.47	SS304
WSBV320	3-way	20mm	3/4"	15.94/18.60	SS304
WSBV325	3-way	25mm	1"	24.85/29	SS304

* SS316, SS316L can be customized

Actuator

WVA4-1... 230 VAC±15%, on/off or 3-point **WVA4-2...** 24VAC/DC±15%, on/off or 3-point

WVA4-3... 24VAC/DC±15%, proportional (0(2)-10VDC/0(4)-20Ma)

Output torque: 3 type, 4N.m, 6N.m and 10N.m Angle of rotation: 90°

Manual handle Automatic overload protection system

Manual selection of ball rotation direction: C.W. /C.C.W, factory setting is C.W.

Protect rank: IP54 Operation time: 50S-120S

Function (3-point, on/off or proportional type)

The actuator is controlled by a modulating on/off, 3-point, and proportional control signal, using high transmitting ratio gear drive to fix and lock.

WVA4-1... 230 VAC±15%, on/off or 3-point

Brown wire is power on counterclockwise rotation, valve open

Red wire is power on clockwise rotation, valve close

Brown or red wire is power off Valve keep the current position

WVA4-2... 24VAC/DC±15%, on/ off or 3-point

Brown wire is power on counterclockwise rotation, valve open

Red wire is power on clockwise rotation, valve close

Brown or red wire is power off Valve keep the current position

WVA4-3... 24VAC/DC±15%, proportional (0(2)-10VDC/0(4)-20Ma)

Black wire and brown wire are the power wire.

Yellow wire accept 0-10V control signal to control the valve's open angle

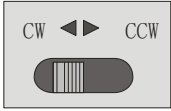
WVA4-3... Flow characteristic

Input 0-10VDC control signal Flow range: 0%-100%

Actuator Model No.	Working Voltage	Actuator type	Output torque	Consumption	The size of the ball valve that the actuator can match
WVA4-104	230VAC±15%	On/off or 3-point	4N.m	12VA	DN25, DN20, DN15
WVA4-106			6N.m	6VA	DN50, DN40, DN32,
WVA4-110			10N.m		DN50
WVA4-204	24VAC/DC ±15%	On/off or 3-point	4N.m	3VA	DN25, DN20, DN15
WVA4-206			6N.m	6VA	DN50, DN40, DN32,
WVA4-210			10N.m		DN50
WVA4-304	24VAC/DC ±15%	0(2)-10VDC	4N.m	3VA	DN25, DN20, DN15
WVA4-306		(0(2)-10VDC/0(4)-20Ma)	6N.m	6VA	DN50, DN40, DN32,
WVA4-310		(0(2)-10VDC/0(4)-20Ma)	10N.m		DN50

Change of running direction

The rotation can be reversed by pushing the CCW/CW switch on the casing.



Factory settings: "CW"

Installation:

1. Ensure that the valve body is in the full open status.
2. Ensure that the actuator is in the fully open position as the follow picture:



3. Insert the valve stem to the bottom of the actuator, and insert 4 pin, located in the bottom of the actuator to the valve's mounting hole. Then screw down the brass cap nut.
4. Aligning the valve stem, press down the aluminum alloy spindle.

Dimension and Wiring

4NM:W=30 X=129 Y=65 Z=59; 6NM:W=46 X=156 Y=85 Z=64

Unit: mm (Allowable tolerance±2)

2-way:

A=G1/2"	B=12	C=52	D=116
A=G3/4"	B=15	C=59	D=120
A=G1"	B=20	C=77	D=127

Joint size(1:1.5)

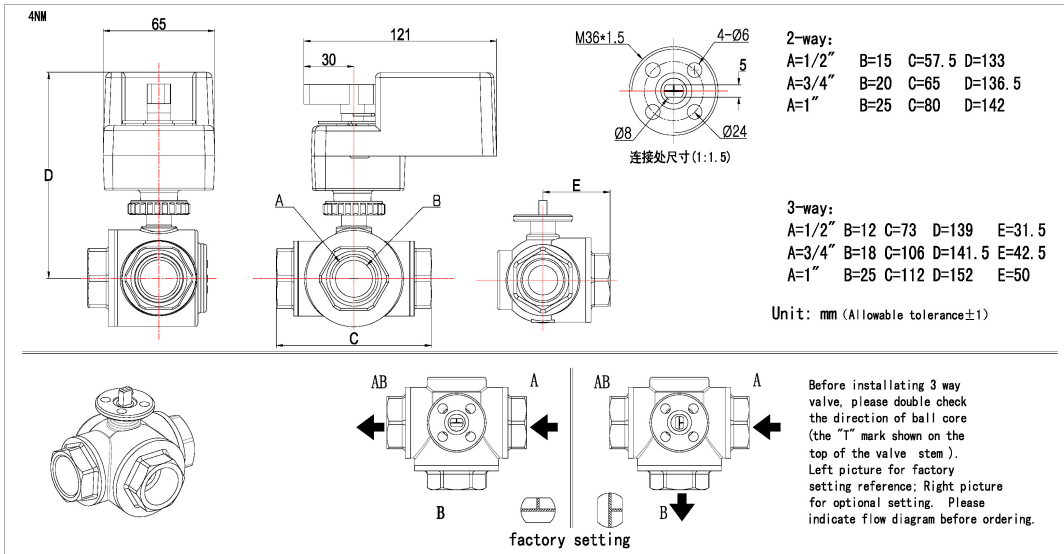
3-way:

A=G1/2"	B=10	C=56	D=116	E=30
A=G3/4"	B=12	C=69.5	D=120	E=37
A=G1"	B=17	C=84	D=125	E=45

Before installing 3 way valve, please double check the direction of ball core (the "T" mark shown on the top of the valve stem). Left picture for factory setting reference; Right picture for optional setting. Please indicate flow diagram before ordering.

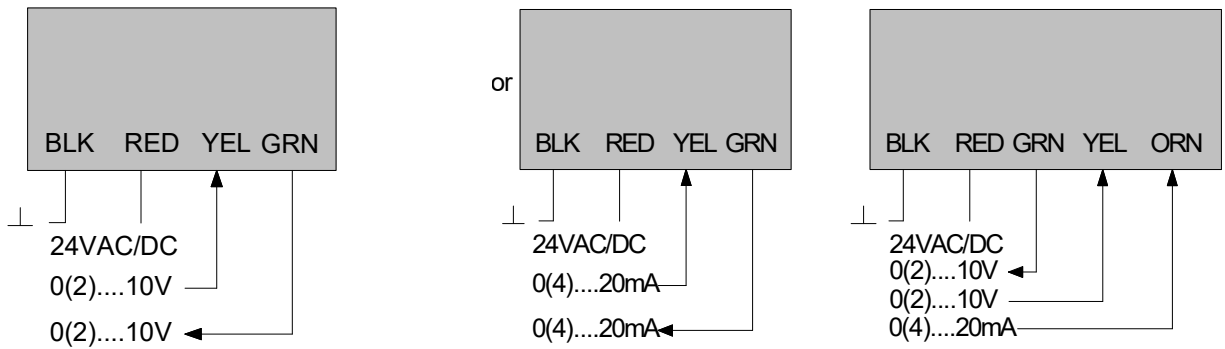
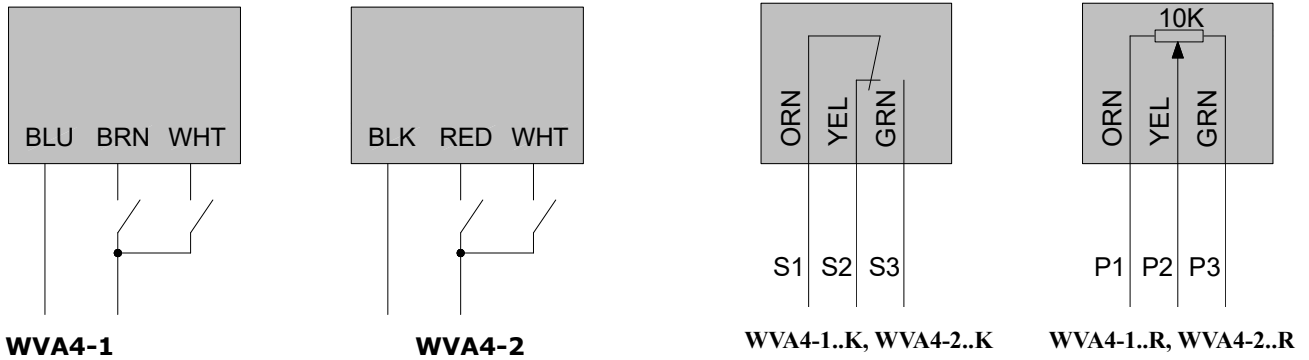
WCBS... series valve body Connector Dimension

	DN25	DN32	DN40	DN50
A	105	105	140	140
B	65	65	85	85
H	124	134	166	175
L	91	102	113	128
S	39	49	55	70
M	46	53	57	65
Weight	1.2	1.6	2.2	3



stainless steel

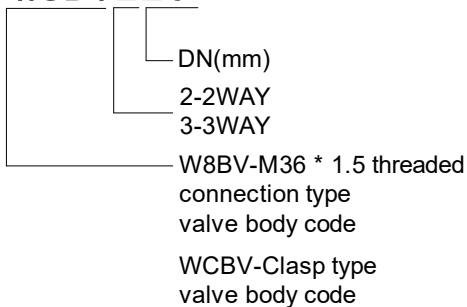
Wiring diagram



Model definition

Valves body model

W8BV220



Actuator model actuator torque code will not be showed if delivered.

