

Control Ball Valve



Description

Winner control ball valve consists of WAV4-... series rotary actuator and WCBS... series ball valve. Equal percentage 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

Rated pressure: PN20

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

Valve type: 2-way and 3-way

Temperature of medium: 2°C...90°C

Pipe connector: internal thread

Size: 1/2" -2"

Flow characteristic: equal percentage, on/off

Material

Valve body: forged brass, Hpb59-1

Ball: chrome-plated brass

Valve connector: PC

Seal: ball: EPDM+PTFE

stem: EPDM

Valve spindle: aluminum alloy

Model No.		DN(mm)	Inch	Kvs(m ³ /h)	ΔPmax (MPa)	Δ Ps (KPa)
WCBS215	2-way	DN15	1/2"	6.3	0.6Mpa	1400
WCBS220		DN20	3/4"	6.3	0.6Mpa	1400
WCBS225		DN25	1"	10	0.6Mpa	1400
WCBS232		DN32	1 1/4"	16	0.6Mpa	1400
WCBS240		DN40	1 1/2"	25	0.6Mpa	1400
WCBS250		DN50	2"	43	0.6Mpa	1400
WCBS315	3-way	DN15	1/2"	6.3	0.6Mpa	1400
WCBS320		DN20	3/4"	6.3	0.6Mpa	1400
WCBS325		DN25	1"	10	0.6Mpa	1400
WCBS332		DN32	1 1/4"	16	0.6Mpa	1400
WCBS340		DN40	1 1/2"	25	0.6Mpa	1400
WCBS350		DN50	2"	43	0.6Mpa	1400

Actuator

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

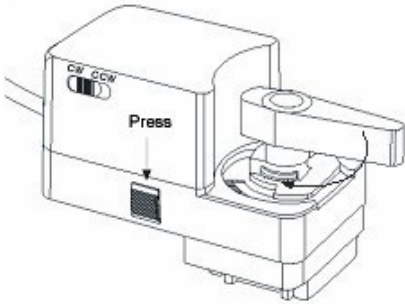
WVA4-2... 24VAC/DC±15%, on/ off or 3-point

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

	valve body	WVA4-310,	WCBS350,	
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Installation:

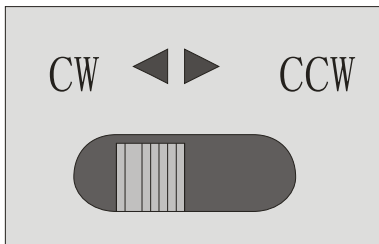
1. Ensure that the valve body is in the full open status.
2. Ensure that the actuator is in the fully open position as the follow picture:



3. Aligning the valve stem, press down the aluminum alloy spindle.

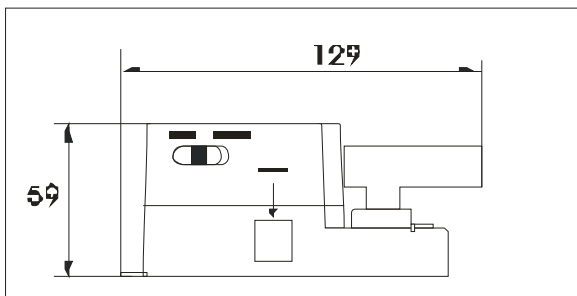
Change of running direction

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

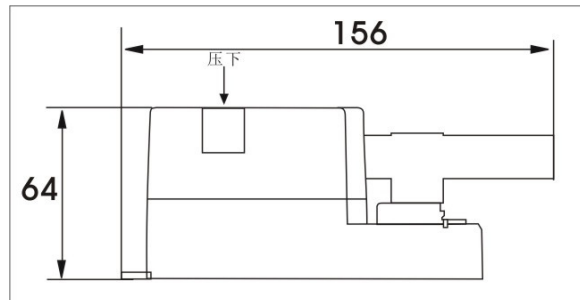


Factory settings: "CW"

Dimension and Wiring Actuator

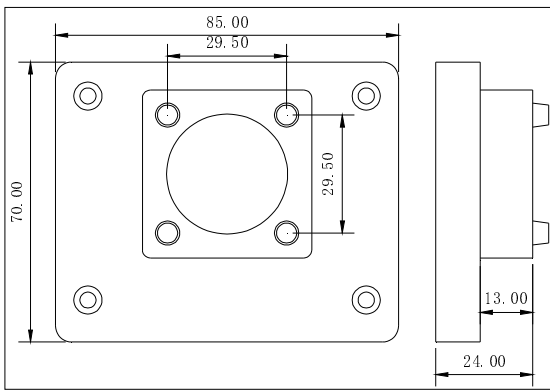


WVA4-104, WVA4-204, WVA4-304

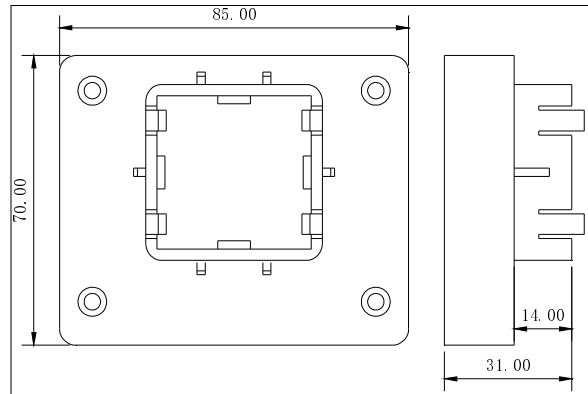


**WVA4-106, WVA4-206, WVA4-306
WVA4-110, WVA4-210, WVA4-310**

Connector Dimension

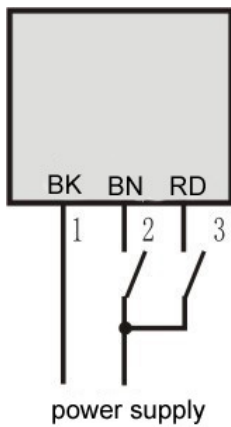


WCBS-1



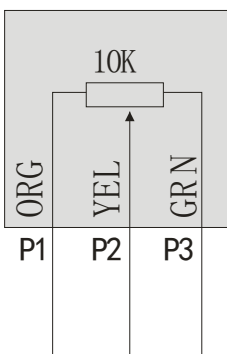
WCBS-2

Wiring diagram

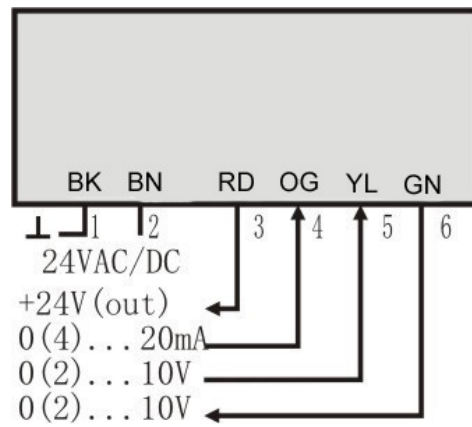


WVA4-104, WVA4-106, WVA4-110
WVA4-204, WVA4-206, WVA4-210

Feedback resistances

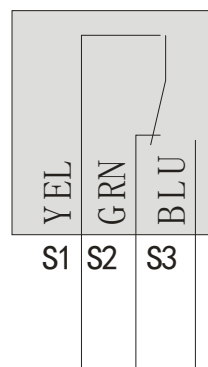


WVA4-1...-R, WVA4-2...-R



WVA4-304, WVA4-306, WVA4-310

Feedback Micro travel switch

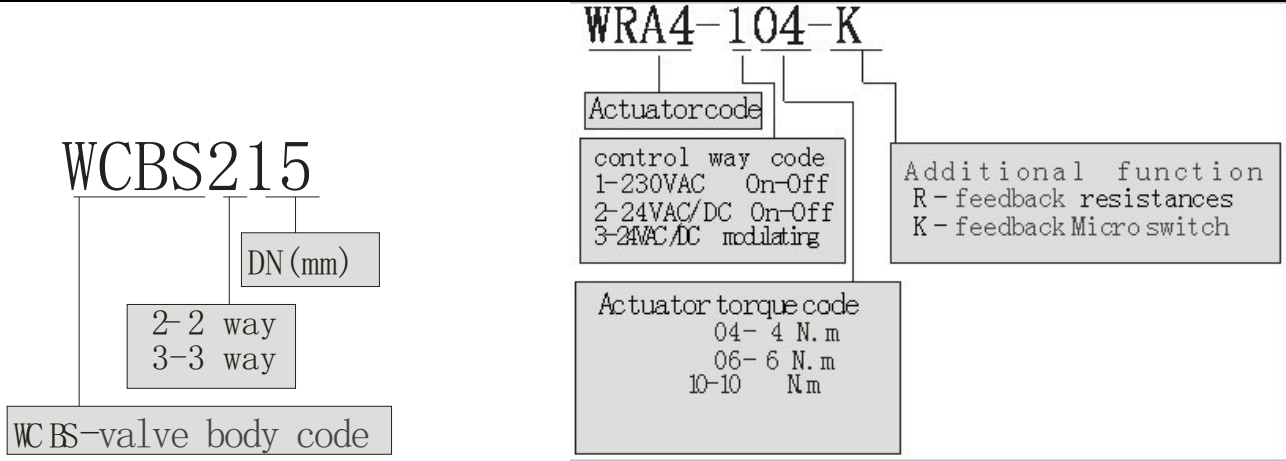


WVA4-1...-K, WVA4-2...-K

Model definition

Valves body model

Actuator model



Actuator torque code will not be showed if delivered.