

Series W-PICVXXX-25T/25Q

Dynamic Balancing Electric Control Valve

Size: DN15-DN50

Series W-PICVXXX-25T/25Q is mainly used in air conditioning system and heating system's terminal air conditioning unit, fresh air unit, all kinds of plate heat exchanger, etc. In air conditioning and heating system, it is necessary to control the flow rate at the end of air handle unit (AHU) and pre-cooling air handling unit (PAU) according to the change of indoor temperature. The electric control valve is the key device used to control the flow. The valve can convert the temperature signal fed back from the temperature sensor into the voltage signal to drive the opening of the control valve through the driver, so as to achieve the purpose of controlling the flow rate.

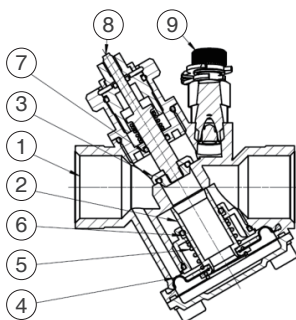
Features

- Equal percentage control characteristics
- Constant differential pressure between the two ends of the control valve
- Preset maximum flow rate to facilitate on-site debugging
- Designed with front and rear differential pressure measuring nozzles
- Shut-off function

Working Principle

The dynamic balance electric control valve combines functions of dynamic differential pressure balance valve and electric control valve, which is equivalent to setting a constant pressure device at both ends of the electric control valve; when the differential pressure of the system changes, the differential pressure between the two ends of the electric control valve is guaranteed to be constant, so as to achieve accurate equal percentage characteristics.

Material

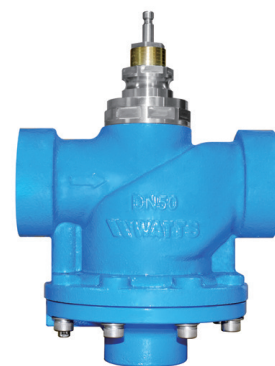


DN15-DN32

Component	Material
① Valve Body	Anti-dezincification Brass CW602N(DN15-DN25) Phosphorized Copper C84400 (DN32)
② Differential Pressure Valve Spool	Stainless Steel SS304
③ Control Valve Spool	Brass
④ Diaphragm	Hydrogenated Butadiene-acrylonitrile Rubber (HNBR)
⑤ Spring	304 Spring Steel
⑥ Seal Ring	Hydrogenated Butadiene-acrylonitrile Rubber (HNBR)
⑦ Valve Stem Seal	HNBR
⑧ Valve Stem	Stainless Steel SS304
⑨ Measuring Nozzle	Anti-dezincification Brass CW602N



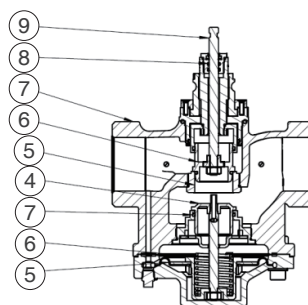
DN15-DN32



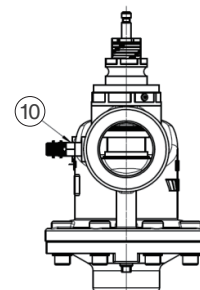
DN40-DN50

Specification

- Temperature Range: -10~120°C
- Nominal Pressure: PN25
- Connection Mode: threaded connection
- Thread Standard: GB/T 7306.1 ISO 7-1
- Flow Rate Error: ±10%
- Working Pressure Difference Range: 30KPa-400KPa
- Protection Level of Actuator: IP54
- Control Characteristics: Equal percentage control characteristics
- Working Medium: Air conditioning hot and cold water, ethylene glycol solution

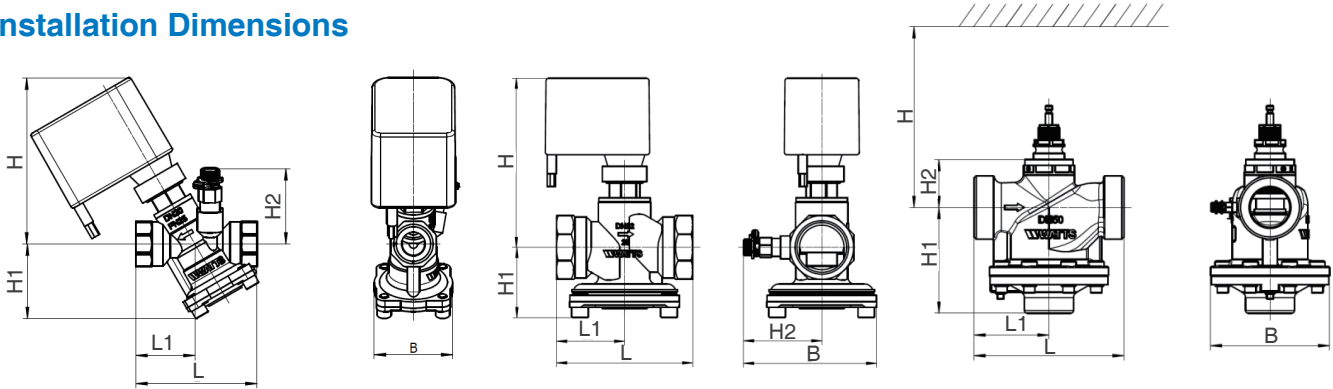


DN40-DN50



Component	Material
① Valve Body	Ductile Cast Iron QT450-10
② Valve Seat	Stainless-Steel SS304
③ Differential Pressure Valve Spool	Stainless-Steel SS304
④ Control Valve Spool	Stainless-Steel SS304
⑤ Diaphragm	Hydrogenated Butadiene-acrylonitrile Rubber (HNBR)
⑥ Spring	304 Spring Steel
⑦ Seal Ring	Hydrogenated Butadiene-acrylonitrile Rubber (HNBR)
⑧ Valve Stem Seal	HNBR
⑨ Valve Stem	Stainless Steel SS304
⑩ Measuring Nozzle	Anti-dezincification Brass CW602N

Installation Dimensions

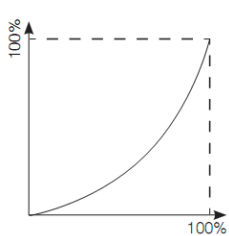


DN	Thread	L	L1	B	H	H1	H2	Weight of valve body KG
15	Rp 1/2	82	39.9	55	117	53	53	0.67
20	Rp 3/4	85	41.4	55	117	53	53	0.69
25	Rp 1	96	44.6	60	116	63	58	0.95
32	Rp 1 1/4	107	53.5	105	132	55	62	1.47
40	Rp 1 1/2	214	107	170	403	151	68	11.9
50	Rp 2	214	107	170	403	151	68	12.1

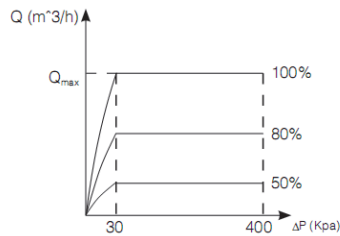
DN15~DN32 actuator leaves $\geq 50\text{mm}$ operation space.

Flow Setting

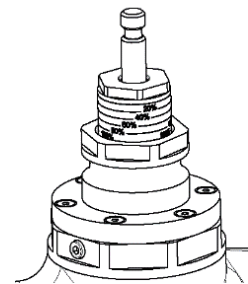
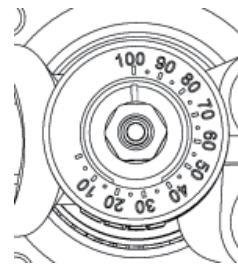
Through the hexagonal at the top of the valve, 30% to 100% of opening can be preset, with the factory default of 100%. This function can not only meet the needs of special users, but also improve the control accuracy.



Equal percentage flow characteristics

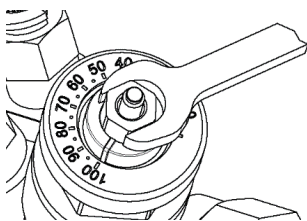


Differential pressure flow characteristics

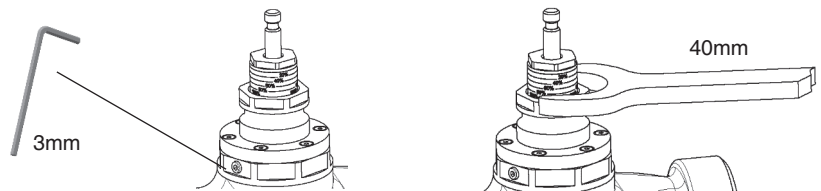


Opening regulation

Opening regulation



DN15-DN32



DN40-DN50 Loosen the lock nut before preset, and tighten it

Table of Flow Rate with Preset Opening (m^3/h)

Opening Caliber	30%	40%	50%	60%	70%	80%	90%	100%
DN15	0.31	0.42	0.53	0.63	0.74	0.84	0.95	1.05
DN20	0.31	0.42	0.53	0.63	0.74	0.84	0.95	1.05
DN25	0.31	0.6	0.9	1.2	1.5	1.7	2.1	2.5
DN32	0.9	1.3	1.7	2.1	2.5	2.8	3.1	3.3
DN40	2.8	3	3.7	4.3	5.9	8.2	10.7	13
DN50	2.8	3	3.7	4.3	5.9	8.2	10.7	13

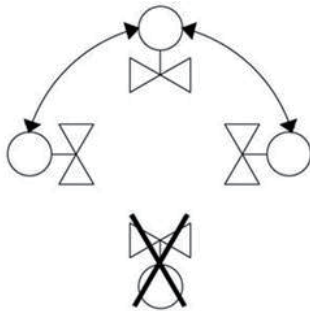
Product Type

Model	Size	EDP	Max Flow Rate(M ³ /h)	Valve Stem Travel(Mm)	Supporting Actuator
W-PICV015-25T	DN15	61984715	1.05	3.2	W-AR2M-16
W-PICV020-25T	DN20	61984716	1.05	3.2	W-AR2M-16
W-PICV025-25T	DN25	61984717	2.5	5.5	W-AR2M-16
W-PICV032-25T	DN32	61984718	3.3	5.5	W-AR2M-16
W-PICV040-25T	DN40	61984719	13	15	W-A11A1X
W-PICV050-25T	DN50	61984720	13	15	W-A11A1X

Actuator Model

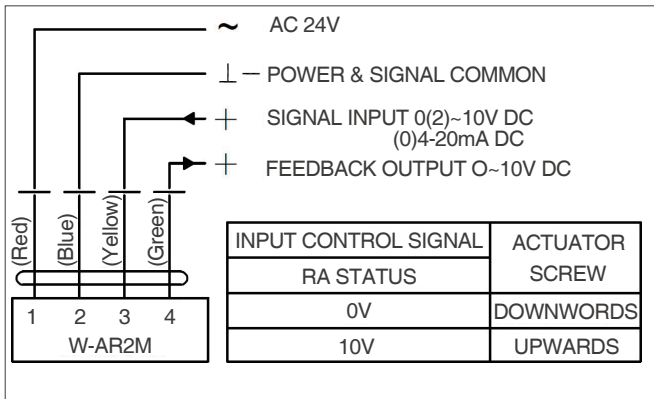
Model	EDP	Output Shut-Off Force (N)	Operating Voltage	Control Model	Running Speed(s/mm)
W-AR2M-16	61230019	200	24VAC	0(2)-10V	5
W-AR2M-25	61230020	350	24VAC	0(4)-20mA	5
W-A11A1X	616P2241	500-700	24VAC		3.85

Installation Instruction



Prohibit downward installation of actuators

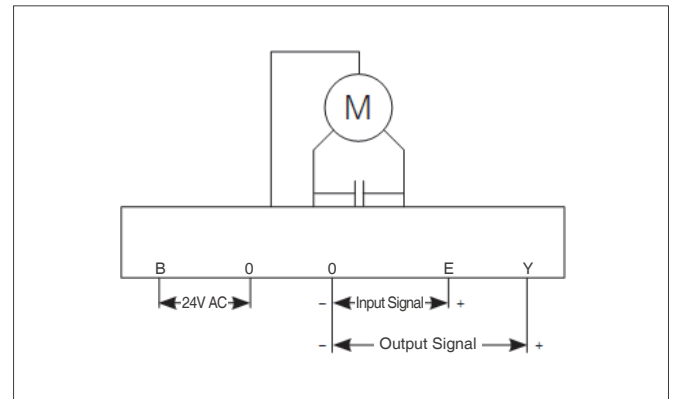
Wiring Terminal Diagram



W-AR2M

Model Description

W	WATTS	W-	PICV	020	-25	T
PICV dynamic balance electric control valve						
Caliber						
015-050: DN15-DN50						
Pressure-bearing grade						
25: PN25						
Valve body material:						
T: copper Q: nodular cast iron						



W-A11