# VN3 SERIES ELECTRIC CONTROL VALVES FOR USE WITH FAN COIL UNITS

## **PRODUCT INFORMATION**

#### **TECHNICAL PARAMETERS**



#### **ACTUATOR**

Operating power supply: 24VAC±10%, 50/60Hz

Control mode: Modulating

Non-spring return

Control signal: O-10V DC (Input resistance  $200K\Omega$ )

Feedback signal: 0–10V DC (Max. 1mA)

Working temperature: 0–65°C

Working relative humidity: 10%-90%RH Non-condensing

Power consumption: ≤5W

Actuation time: Open≤40s, Closed ≤40s

Protection rating: IP42

### **APPLICATION**

**VN3** series electric ball valves can be used in residential and commercial buildings to control the flow of hot or cold liquids. Each set includes an electric actuator and a valve body.

The actuator receives a 0-10V analog signal that controls the valve opening and a 0-10V feedback signal indicates the opening degree of the valve. The 0-10V control signal adopts incremental control, so when the control signal increases, the valve opening degree increases accordingly. The valve is fully closed at 0V and fully open at 10V.

The **VN3** series offer a wide range of screw thread connection standards for different regions, with two-way and three-way valve bodies to cover most building control applications.

#### **VALVE BODY**

Applicable medium: Cold, hot water or 50% glycol solution

Fluid temperature range:  $0-94^{\circ}$ C Working temperature:  $0-65^{\circ}$ C

Working relative humidity: 10%–90% RH

Transportation and storage temperature: -40-65°C, 10%-90% RH Non-condensing

Nominal pressure: PN20

Leakage rate: 0.05% Kvs

Materials: Valve body and ball – forging brass (HPb59-1)

Valve rod — stainless steel (OCr18ni9)

Valve seat — polytetrafluoroethylene (PTFE)

O-sealing ring — Ethylene Propylene Diene Monomer (EPDM)



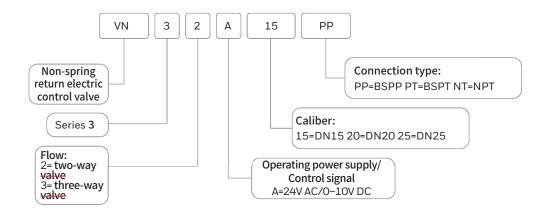
# **ORDERING PART NUMBERS**

PART NUMBERS	VOLTAGE	FLOW	SIZE (diameter)	CONNECTION TYPE	NOMINAL FLOW RATING	CLOSE-OFF DIFFERENTIAL PRESSURE	
					(Kvs)	(PSI)	(MPa)
VN32A15PP	24Vac±10%	2-way	DN15, 1/2"	BSPP	2.0±10%	87	0.6
VN32A15PT	24Vac±10%	2-way	DN15, 1/2"	BSPT	2.0±10%	87	0.6
VN32A15NT	24Vac±10%	2-way	DN15, 1/2"	NPT	2.0±10%	87	0.6
VN32A20PP	24Vac±10%	2-way	DN20, 3/4"	BSPP	3.2±10%	87	0.6
VN32A20PT	24Vac±10%	2-way	DN20, 3/4"	BSPT	3.2±10%	87	0.6
VN32A20NT	24Vac±10%	2-way	DN20, 3/4"	NPT	3.2±10%	87	0.6
VN32A25PP	24Vac±10%	2-way	DN25, 1"	BSPP	5.7±10%	87	0.6
VN32A25PT	24Vac±10%	2-way	DN25, 1"	BSPT	5.7±10%	87	0.6
VN32A25NT	24Vac±10%	2-way	DN25, 1"	NPT	5.7±10%	87	0.6
VN33A15PP	24Vac±10%	3-way	DN15, 1/2"	BSPP	3.2±10%	87	0.6
VN33A15PT	24Vac±10%	3-way	DN15, 1/2"	BSPT	3.2±10%	87	0.6
VN33A15NT	24Vac±10%	3-way	DN15, 1/2"	NPT	3.2±10%	87	0.6
VN33A20PP	24Vac±10%	3-way	DN20, 3/4"	BSPP	4.6±10%	87	0.6
VN33A20PT	24Vac±10%	3-way	DN20, 3/4"	BSPT	4.6±10%	87	0.6
VN33A20NT	24Vac±10%	3-way	DN20, 3/4"	NPT	4.6±10%	87	0.6
VN33A25PP	24Vac±10%	3-way	DN25, 1"	BSPP	6.7±10%	87	0.6
VN33A25PT	24Vac±10%	3-way	DN25, 1"	BSPT	6.7±10%	87	0.6
VN33A25NT	24Vac±10%	3-way	DN25, 1"	NPT	6.7±10%	87	0.6

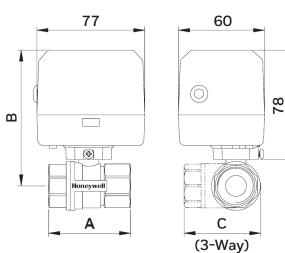
Note: For other models, please consult our product department.



## PRODUCT IDENTIFICATION SYSTEM

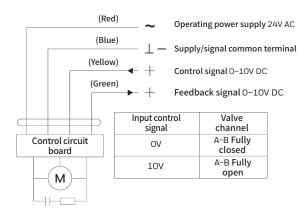


## **DIMENSIONS (mm)**



PART	DIMENSIONS (mm)					
NUMBERS	А	В	С			
VN32A15XX	51.5	100	_			
VN33A15XX	56	100	42			
VN32A20XX	60	100	_			
VN33A20XX	67	100	53			
VN32A25XX	66	105	_			
VN33A25XX	83	105	62			

## **WIRING DIAGRAM**



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