

NVCB 7000 SERIES CHARACTERISED DISC BALL VALVE

2-Way & 3-Way

NENUTEC[®]

INNOVATIVE MEMBER OF SWISSTECH

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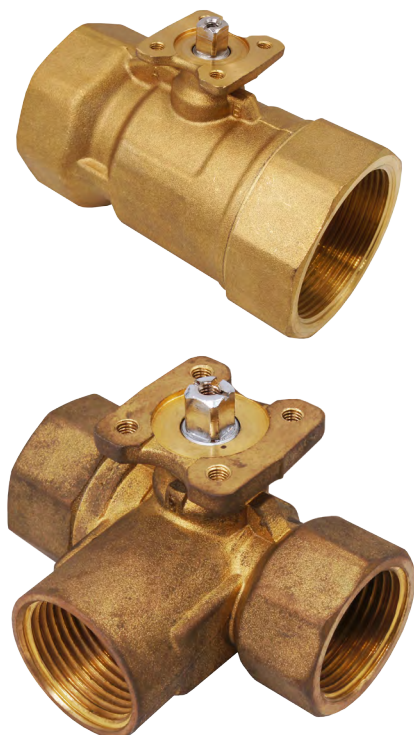


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NVCB 7000 SERIES

CHARACTERISED DISC BALL VALVE

2-Way & 3-Way



NVCB 7000 SERIES

NVCB characterised disc ball valve is mainly use in the HVAC system to regulate the flow of water and steam in response to the demand of a controller.

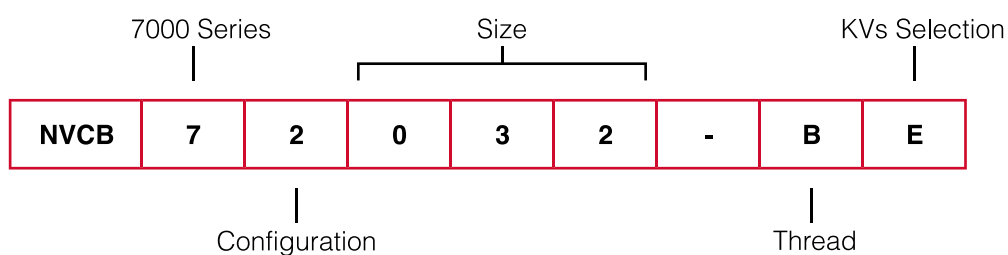
PRODUCT FEATURE

- Complete range from DN 15 to DN 50
- 2-Way, 3-Way Mixing / Diverting
- Forged brass body
- Low leakage factor of up to 0.01% of KVs
- High close-off pressure actuator satisfies demanding requirements of high-rise buildings and high pressure pumping systems
- PN 20 or 290 PSI system operation pressure
- Equal percentage flow characteristic

TECHNICAL SPECIFICATION

VALVE BODY PRESSURE RATING	290 PSIG (PN20 or 2,000 kPa) Meets Requirements of ANSI B16.15, Class 250		
FLUID / AMBIENT TEMPERATURE LIMIT	5 to 95°C water at an Ambient Temperature of 40°C		
SHIPPING & STORAGE TEMPERATURE LIMIT	-40 to 70°C (-40 to 158°F)		
BODY SIZE	See TABLE 1: VALVE CODE NUMBER DESIGNATION		
SERVICE	Chilled, Hot Water, up to 50% Glycol Solutions and 15% (103 kPa) Saturated steam		
SEAT LEAKAGE	0.01% of KVs		
PIPE CONNECTION	BSP or NPT		
MAXIMUM CLOSE OFF PRESSURE	See TABLE 2: MAXIMUM CLOSE-OFF PRESSURE KPA (PSI) WITH ACTUATOR		
BODY MATERIAL	Brass Trim	Body	Forged Brass
		Stem	Brass
		Seat	EPDM
		Seal	HNVR Double O-Rin
FLOW CHARACTERISTIC	2-Way	Equal Percentage	
	3-Way	Equal Percentage of Inline Port A & Linear for port B Bypass	

TABLE 1: VALVE CODE NUMBER DESIGNATION



VALVE BODY TYPE	NVCB 7 = NVCB 7000 Series Characterised Ball Valve
CONFIGURATION	2 = 2 - Way 3 = 3 - Way
VALVE SIZE	015 = DN15 020 = DN20 025 = DN25 032 = DN32 040 = DN40 050 = DN50
PIPE THREAD	B = BSP N = NPT
FLOW CHARACTERISTIC (FOR 3-WAY VALVE ONLY)	M = Mixing (2 Inlet, 1 Outlet) D = Diverting (1 Inlet, 2 Outlet)

KVS SELECTION

DN \ KVs	15		20		25		32		40		50	
	2-Way	3-Way	2-Way	3-Way	2-Way	3-Way	2-Way	3-Way	2-Way	3-Way	2-Way	3-Way
C	1.0	1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C1	1.6	1.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
D	2.5	2.5	4.0	4.0	6.3	6.3	10.0	10.0	16.0	16.0	25.0	25.0
E	4.0	4.0	6.3	6.3	10.0	10.0	16.0	16.0	25.0	25.0	40.0	40.0
F (FULL PORT)	6.3	6.3	10.1	10.1	16.0	16.0	25.0	25.0	40.0	40.0	63.0	63.0

NVCB 7000 SERIES

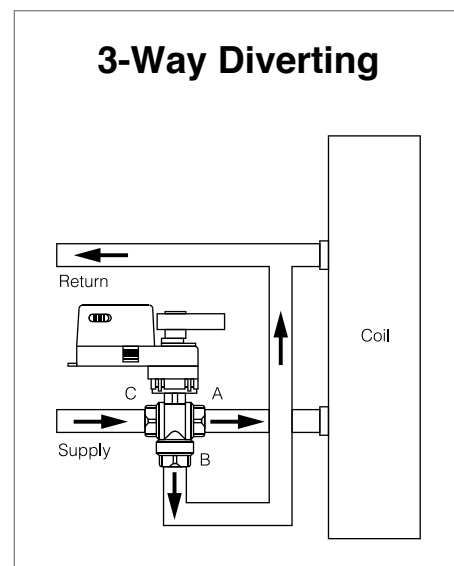
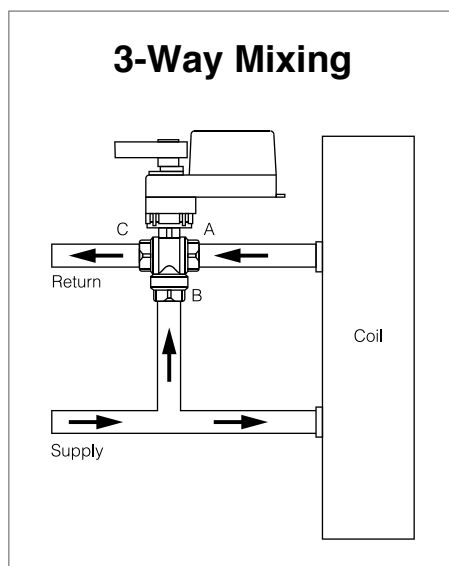
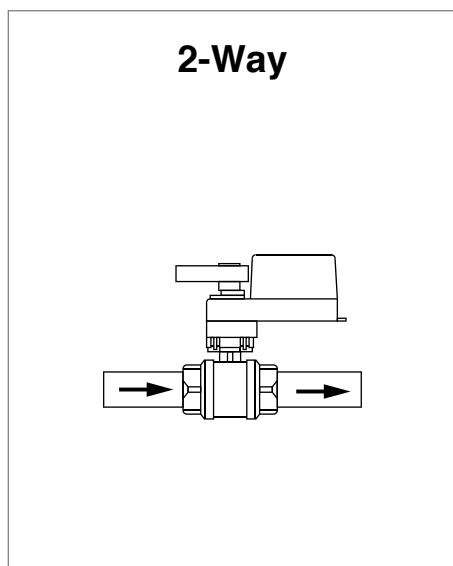
CHARACTERISED DISC BALL VALVE

2-Way & 3-Way

TABLE 2: MAXIMUM CLOSE-OFF PRESSURE KPA (PSI) WITH ACTUATOR

MAXIMUM CLOSE-OFF PRESSURE KPA (PSI)							
MODEL	TORQUE (Nm)	DN15	DN20	DN25	DN32	DN40	DN50
NAB...- 05	5	1,000 (145)	1,000 (145)	1,000 (145)	1,000 (145)	690 (100)	400 (58)
NEB...- 05	5	1,000 (145)	1,000 (145)	1,000 (145)	1,000 (145)	690 (100)	400 (58)
NAB...- 10	10	1,400 (203)	1,400 (203)	1,400 (203)	1,400 (203)	1,000 (145)	1,000 (145)
NEB...- 10	10	1,400 (203)	1,400 (203)	1,400 (203)	1,400 (203)	1,000 (145)	1,000 (145)

PIPING DIAGRAM



Mixing Application:

Fluid enters through two inlet (A & B) and exits through one outlet (C)

Diverting Application:

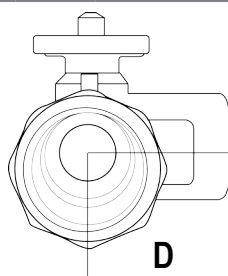
Fluid enters through one inlet (C) and exits through two outlet (A & B)

REMARK

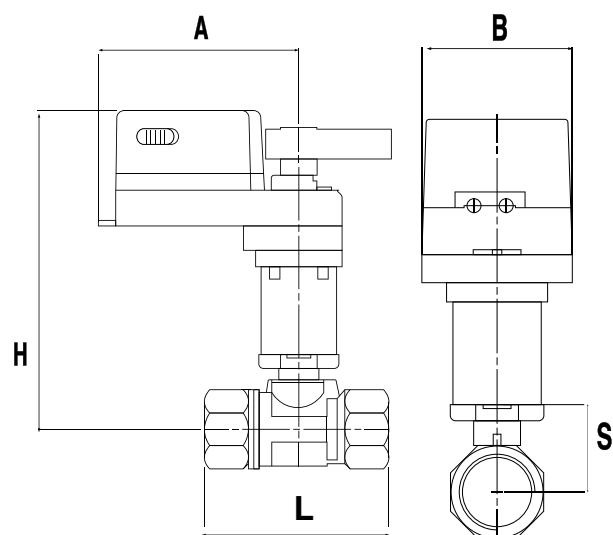
3-Way Valve assemblies are shipped as standard with ball ports labeled as A, B and C accordingly. All 3-Way ball valves are shipped 0° counterclockwise. For application requiring a different flow pattern, please consult your NENUTEC representative.

TABLE 3: DIMENSION OF VALVE BODY (mm)

DIMENSIONS	DN (mm)	A	B	H	L	S	D
2 & 3-Way	15	105	65	158	60	39	31
	20	105	65	158	67	44	32
	25	105	65	160	89	47	47
	32	140	85	190	99	53	49
	40	140	85	200	106	57	52
	50	140	85	210	123	62	69



For 3 way valve



For 2 way valve

INSTALLATION / MOUNTING INSTRUCTION



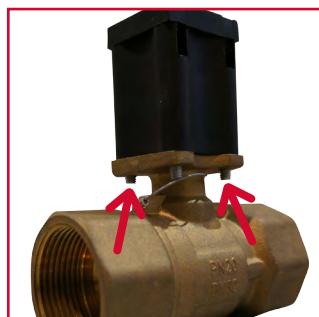
① Items shown in photo are ready for assembling



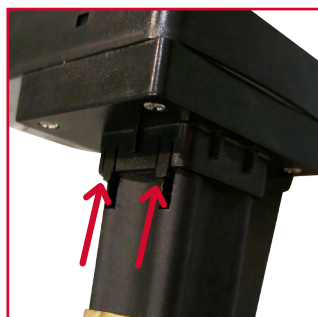
② Secure the shaft to the actuator



③ Tighten the screw from the actuator to secure the shaft



④ Attach the bracket to the valve body and secure with all 4 screws provided



⑤ Position the valve body and latch onto the neck of the actuator in the correct direction



⑥ The assembled finished product should look like this and it is ready to use

APPLICATION OVERVIEW

The NVCB 7000 series feature are available in 2-Way and 3-Way configurations with threaded NPT or BSP. The Valve can be ordered with NENUTEC Ball Valve Actuator NAB... and NTC... / NPC... controller for a complete HVAC solution.

The performance specifications are nominal and conform to acceptable industry standards. NENUTEC shall not be liable for damages resulting from misapplication or misuse of its products.