

BVA2nn Ball Valves and Actuators

DN65-150

The BVA2nn Ball Valves and Actuators (DN65-150) is a motorized control valve used to control hot and cold water in heating, ventilation, and air conditioning (HVAC).

Regulatory Compliance and Safety Information

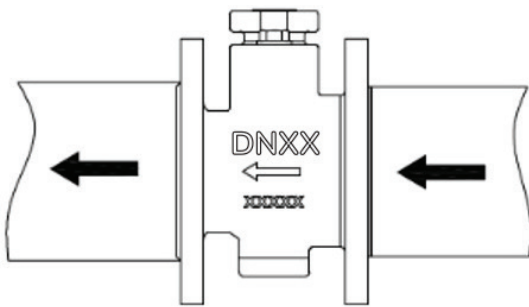
Electrical equipment should be installed, operated, serviced, and maintained only by qualified personnel. No responsibility is assumed by Schneider Electric for any consequences arising out of the use of this material.

Carefully read these instructions and all information relevant to this product before trying to install it.

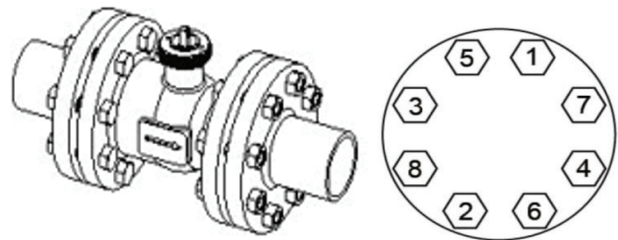
The technical literature and declarations of conformity can be accessed by searching for the part number on the Schneider Electric website, www.schneider-electric.com. Contact your local Schneider Electric sales office for a hard copy of the documentation or for additional information.

Installation

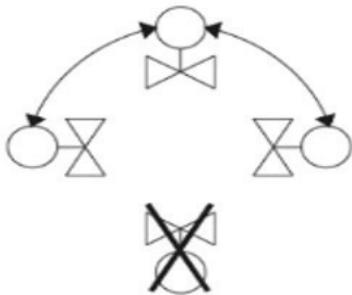
- 1 Ensure the flow direction correctly follows the arrow shown on the valve.



- 2 Flanged, DN 65...150
Bolts must be installed in the order shown below.

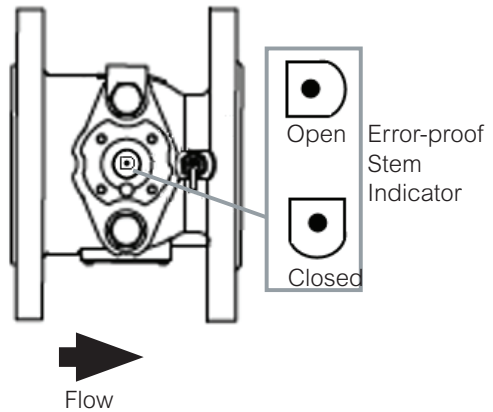


- 3 Actuator/valve assembly can be installed in any position other than upside-down.

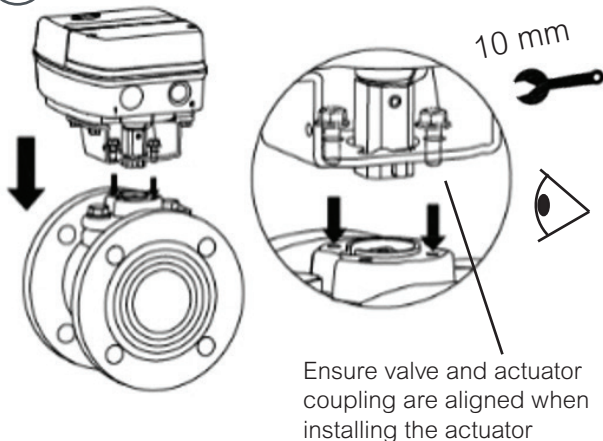


Note: Ensure adequate space around actuator/valve assembly for future disassembly.

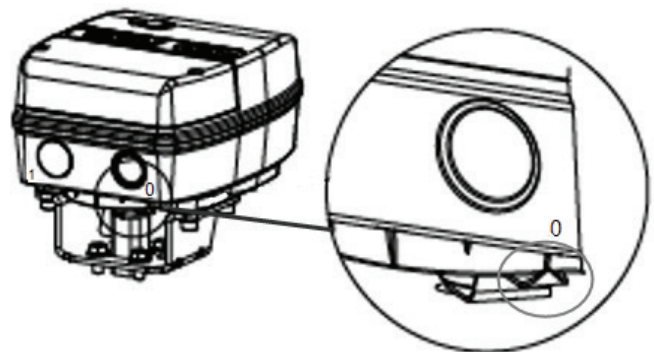
- 4 Valve Position



- 5 Actuator installation



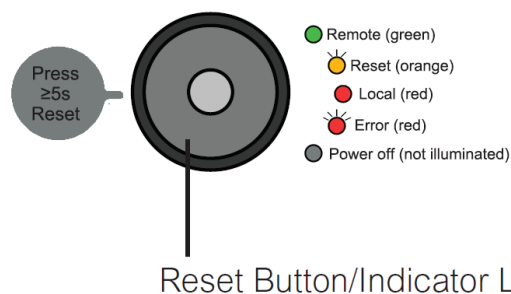
- 6 Valve position indicator (0 = closed, 1 = open)



Actuator Indicators

Indicator Lamp

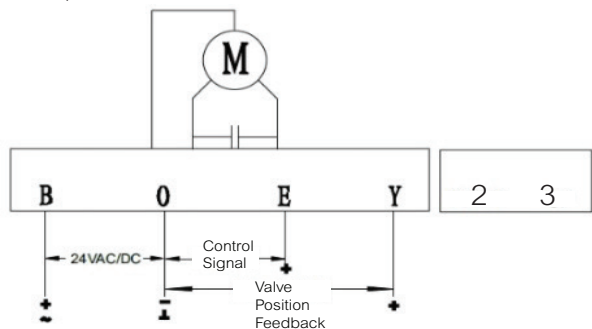
LED Color	Status	Description
Green	Steady	Normal operating mode
Orange	Flicker (frequency~ 1Hz)	Self-stroking mode of operation
Red	Flicker (frequency~ 2Hz)	Error alarm
Red	Steady	Local mode
Off	Off	Power off



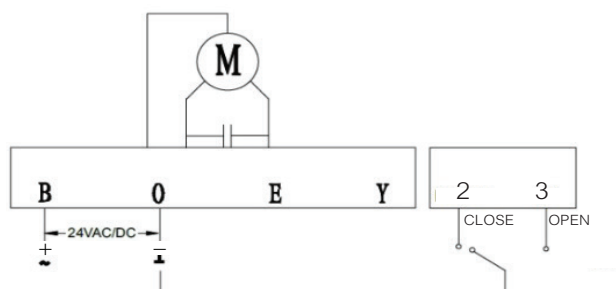
Reset Button/Indicator Lamp

Wiring Diagram

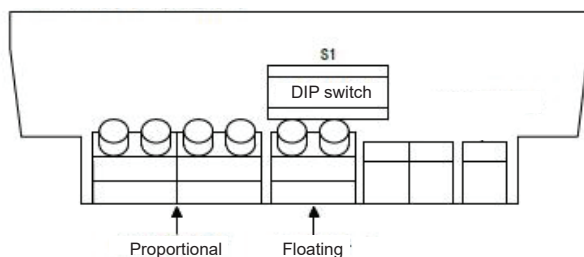
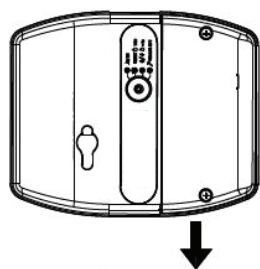
24V Proportional



24 V Floating



24V



DIP Switch



DIP	Function	Setting	Description
S1	Control/feedback range	ON	4 ~ 20 mA or 2 ~ 10 V DC
		OFF	0 ~ 20 mA or 0 ~ 10 V DC (Factory setting)
S2	Control signal setting	ON	The control signal is a current type
		OFF	The control signal is a voltage type (Factory setting)
S3	Impedance match control signal	ON	The control signal is a voltage type (Factory setting)
		OFF	The control signal is a current type
S4	Feedback signal setting	ON	Valve position feedback signal is a current type
		OFF	Valve position feedback signal is a voltage type (Factory setting)
S5	Direct/reverse acting	ON	Direct acting: When the control signal increases, the actuator to "1" Running direction (Factory setting)
		OFF	Reverse acting: When the control signal increases the actuator to "0" Running direction
S6	Mode setting off signal	ON	If the control signal is cut off, inside the actuator control automatically provides a minimum signal (Factory setting)
		OFF	1) When the control signal is a voltage-type, if the control signal is cut off, inside the actuator control automatically provides a maximum signal 2) When the control signal is a current-type, if the control signal is cut off, inside the actuator control automatically provides a minimum signal
S7	Calibration/self-stroke	ON	Each time actuator is powered runs full stroke cycle (Factory setting)
		OFF	Full stroke cycle only initiated via reset button

DIP	Function	Setting	Description
S8	Control mode (when S9 for OFFTime)	ON	Floating control
		OFF	Modulating proportional control (Factory setting)
S9	Control mode	ON	-
		OFF	Modulating and Floating control (Factory setting)
S10	Actuator status when control signal is lost	ON	When the control signal is lost, the actuator remains at the current position (only applicable to 4 ~ 20 mA control)
		OFF	The actuator works according to S1-6 settings (Factory setting)

Troubleshooting

- Once the assembly is finished, connect power and control signal cable according to the wiring diagram.
- Set DIP switches for the desired functionality (DIP switches can also be set while the actuator has power). On power up, the selections take effect immediately (this step for the purpose of the actuator and valve body to match)
- Turn on the power (DIP switches can be changed with power on).
 - If Calibration/Self-stroke is set to ON (S7=ON), the actuator indicator lamp will flash yellow. The actuator will run to the "0" position (valve fully closed), and then run to the "1" position (valve fully open). Once complete, the actuator indicator lamp will change from flashing yellow to solid green. The actuator will now follow the control signal.
 - If Calibration/Self-stroke is set to OFF (S7=OFF), the actuator will follow the control signal.

Notes:

- If the actuator indicator lamp is flashing red, the actuator must be reset. Press the Indicator lamp button for >5 seconds to initiate reset.
- Factory default setting is for automatic self-stroking (S7 is ON), i.e., every time the power is turned off, the actuator will automatically run a full stroke cycle.

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