

## Series

**T2AxxxxEB2:** 2-way, 1/2", threaded unions, NPT  
**T2BxxxxEB2:** 2-way, 3/4", threaded unions, NPT  
**T2AxxxxEB3:** 2-way, 1/2", direct solder unions  
**T2BxxxxEB3:** 2-way, 3/4", direct solder unions

## Features

- 2-way valves available in 1/2" and 3/4"
- Small dimensions allow for easier installation
- Low Zinc anti-dezincification bronze
- Field replaceable and interchangeable internal cartridges with a wide selection of Cv (Kv) values
- 1.5 million cycles (3 million repositions)
- Packings with burnished mirror finish stainless steel stems
- Micro machined accurate parabolic, characterized plugs
- Available with NPT threads or Direct solder
- Made in Canada



Union Connection on Both Ports



EB: Balanced

## Models

Cv	Kv	1/2"	3/4"	1/2"	3/4"
		NPT	NPT	Solder	Solder
0.5	0.43	T2A0005EB2	-	T2A0005EB3	-
1.0	0.86	T2A0010EB2	T2B0010EB2	T2A0010EB3	T2B0010EB3
1.5	1.30	T2A0015EB2	T2B0015EB2	T2A0015EB3	T2B0015EB3
2.0	1.72	T2A0020EB2	T2B0020EB2	T2A0020EB3	T2B0020EB3
2.5*	2.15*	T2A0025EB2	T2B0025EB2	T2A0025EB3	T2B0025EB3
3.0	2.58	T2A0030EB2	T2B0030EB2	T2A0030EB3	T2B0030EB3
3.5*	3.00*	T2A0035EB2	T2B0035EB2	T2A0035EB3	T2B0035EB3
4.5*	3.87*	-	T2B0045EB2	-	T2B0045EB3

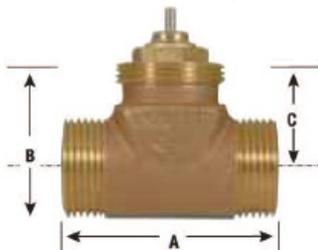


Note: Cv/Kv values indicated with a \* are linear flow. All other cartridges are Equal % flow.

## Technical Data

Specification		All Models
Actuator Compatibility		All Neptronic® VM and VT series actuators
Connection		Union Connection on Both Ports
Thread Type		NPT or direct solder (for 5/8" [16mm] OD copper pipe)
Maximum test pressure		1200 PSI [8275 kPa]
Maximum Close-off pressure		100 PSI [690 kPa]
Differential pressure		50 PSI [345 kPa] can be exceeded, but with possible water noise
Nominal Stroke		5/32" (4mm)
Stem position		Up = valve open (default position); Down = valve closed
Rangeability		100:1
Media		Hot water (rated @ 250°F [120°C]) – Chilled water – Water with antifreeze agent (glycol) max. 50%
Pressure class		ANSI Class 250 (PN25)
Material	Body	Low zinc bronze, alloy C84400 Contains less than 10% Zinc, which prevents dezincification. Dezincification can cause pores to form in the alloy and results in leakage over time.
	Stem	"Mirror – maker" burnished stainless steel
	Internal Cartridge	Seat: integral bronze; Disc./plunger: EPDM/brass; Spring: stainless steel; Packing: double EPDM
Country of fabrication		Made in Canada

## Dimensions & Weight



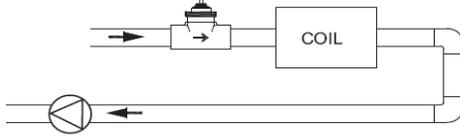
Size & Weight	All Models
A	2.24" (56.90mm)
B	2.24" (56.90mm)
C	1.09" (27.69mm)
Weight	7.8oz (220g)

## Mechanical Installation

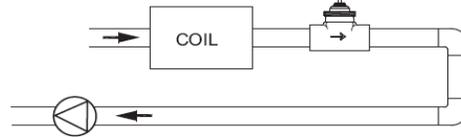
### Valve Body

Install the valve body on the supply side or return side of the coil according to the direction indicated on the valve's body cavity. The terminal unit bodies are normally set to OPEN. The open and close status is dependent on the position of the stem.

Valve installed on the supply side of the coil



Valve installed on the return side of the coil

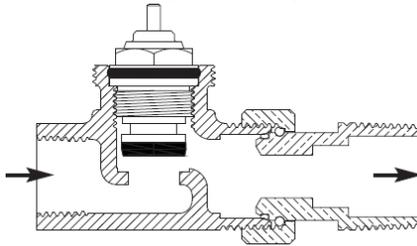


### Stem Position

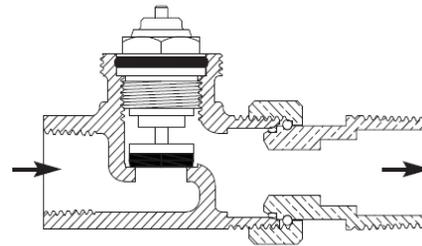
The position of the stem indicates the status of the valve. If the stem is up, it indicates that the valve is open. If the stem is down, it indicates that the valve is closed.

If the terminal unit body is used with direct acting actuators, the valve functions as a normally open valve assembly. If the terminal unit body is used with reverse acting actuators, the valve functions as a normally closed valve assembly.

Stem Up = Valve Open

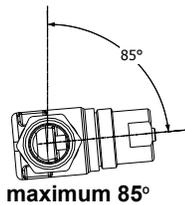


Stem Down = Valve Close



*Note: Since the valves are normally open by default, ensure that the Neptronic VM and VT actuator's DIP switches are set to Normally Open.*

### Orientation



**Caution: Risk of leakage. Do not install valve at an angle of more than 85° from a horizontal position.**



**Caution: Risk of damage to the valve. Install a strainer upstream from the valve to prevent damage.**

### EB Type Cartridge



All valve body assemblies are service and maintenance free. They possess interchangeable internals such as replaceable cartridges for specific applications with variations of parabolic or linear characterized globe plungers. The Cv (Kv) values can be changed by changing just the cartridge. It does not require removing the valve from the line.

The capability of close-off pressure increases with an increase in the actual differential pressure across the valve. The higher the  $\Delta P$ , the higher is the close-off pressure. Theoretically, the close-off pressure is known to increase to the limit of the valve body rating.