

Three-way Mixing Valves

1/2 to 1-inch



Powermite MZ Series
Three-way Globe Valve.

Description

The Powermite MZ Series Three-way Globe Valves are designed to work the SSB MZ Series Actuator with a 7/32-inch (5.5 mm) stroke.

Features

- Direct-coupled universal bonnet/no tools required for installation
- ANSI Leakage Class IV (0.01% of Cv)
- ANSI Class 250 body
- Variety of actuators available
 - 0 to 10 V non-spring return
 - Floating control non-spring return
- Choice of end connections
- Greater than 100:1 rangeability for $C_v \geq 1$
- Orderable as a valve only or as a complete valve/actuator assembly

Applications

The Powermite MZ Series Three-way Globe Valves are used for mixing of hot or chilled water for convectors, fan coil units, unit conditioners, radiation, reheat coils, and similar terminal units requiring an actuator that delivers a minimum of 45 lbf. (200 N) force.

Recommendation:

Use only with the MZ Series SSB Valve Actuators.

A-129

Valves

Three-way MZ Series Valve Specifications

Valve Size	1/2 to 1" (15 to 25 mm)
Body Style	Globe
Seat Style	Metal to Metal
Action	Three-way Mixing
Valve Body Rating	ANSI Class 250
Stem Travel (Stroke)	7/32" (5.5 mm)
Materials	
Body	Forged Brass C37700 (1/2 and 3/4 inch) or UNS CA 844 Bronze (1 inch)
Trim	Brass
Stem	Stainless Steel ASTM A582 Type 303
Packing	EPDM O-rings
Controlled Medium	Water, Glycol Solutions up to 50%
Medium Temperature Range	35 to 250°F (2 to 120°C)

Max. Recommended Differential Pressure for Modulating Service	25 psig (173 kPa)
Rangeability	
Cv < 1	> 50:1
Cv ≥ 1	> 100:1
Close-off Ratings	According to ANSI/FCI 70-2
Leakage Rate	Class IV (0.01% of Cv)
Flow Characteristics	
A → AB	Modified Equal Percentage
B → AB	Linear
Mounting Location	NEMA 1 (Interior Only)

Refer back to the Selection Charts at the beginning of this section to make sure the configuration is valid.

Three-way MZ Series Valve Body Product Ordering


Water Mixing, Brass Trim



Valve Size		Flow Rate		Part No.
in.	(mm)	Cv	(Kvs)	
1/2	(15)	0.4	(0.34)	599-01132
1/2	(15)	0.63	(0.54)	599-01133
1/2	(15)	1	(0.85)	599-01134
1/2	(15)	1.6	(1.37)	599-01135
1/2	(15)	2.5	(2.14)	599-01136
1/2	(15)	4	(3.42)	599-01137
3/4	(20)	6.3	(5.38)	599-01138
1	(25)	10	(8.55)	599-01139

There are no repair parts for this product. Replace the entire valve body if inoperative.

Three-way MZ Series Valve Actuator Product Ordering

Description		Part No.	Actuator Prefix Code
	Electro-Mechanical	24 V, Floating Non-Spring Return	SSB81U
		24 V, 0-10 V Non-Spring Return	SSB61U

Dimensions and Weights

Valve Size in.	Dimensions			Weight
	A	B	C	
1/2" (15 mm)	2-3/4" (70 mm)	2-15/16" (74 mm)	1-5/16" (33 mm)	1.5 lb. (0.7 kg)
3/4" (20 mm)	3-1/4" (83 mm)	2-3/8" (59 mm)	1-5/16" (33 mm)	2.3 lb. (1.05 kg)
1" (25 mm)	3-7/8" (98 mm)	3-15/16" (99 mm)	1-9/16" (39 mm)	3.3 lb. (1.5 kg)

