

SUPERIOR VALVE BODIES

3 PORT - LOW PRESSURE

Forged Brass Body For Use With *Astral* & *Corvus* Actuators



**Superior™ 3-port
Low Pressure Body**



BENEFITS & SPECIAL FEATURES

- Corrosion resistant 1-piece stainless steel stem
- Insulated Isotherm II™ bearing plate
- Heavy brass high quality forging
- Also available in a 2 port version
- Available in C X C, NPT, BSP, JIS, and Compression
- Double ZOLAST™ rubber "O" ring seal on stem
- Compatible with chilled or hot water
- 100 PSI (6.8 bar) static operating pressure limit

Description

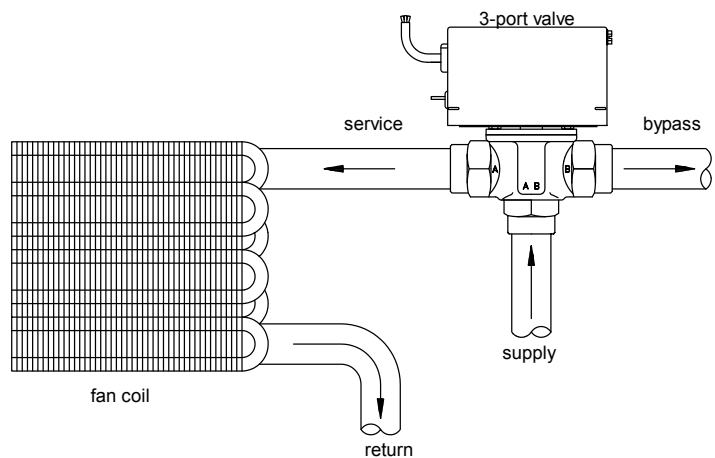
Every Superior body is compatible with all Superior actuators and the ☆Star *Astral* and *Corvus* actuators. ☆Star valves are designed primarily for use on chilled or hot water. The valves are compatible with hundreds of other fluids in many environments. The low pressure bodies are incompatible with steam systems; high pressure body and plate are required.

Operation

The Superior bodies utilize a paddle that swings between two orifices, or seats. The paddle, stem and bearing plate are removable for cleaning or replacement. Since the plate forms a water-tight seal with the forging, the actuator may be removed without draining the system.

Application

Depending on the actuator chosen, the valve is suitable for systems requiring on-off, diverting (with or without priority), and mid-position control. Applications include, but are not limited to: zone control on hydronic systems, fan coils, control of domestic heating loops and storage tanks, humidity control, and industrial process control.



Typical Piping Diagram

SPECIFICATIONS

PRESSURE

Static Pressure - water 100 PSIG / 6.8 bar

MAXIMUM TEMPERATURE LIMITS

Valve w/ Actuator

Fluid:

Standard 195°F / 91°C

High temp. option 250°F / 121°C

Ambient:

Standard 110°F / 43°C

High temp. option 165°F / 74°C

Body only

Fluid:

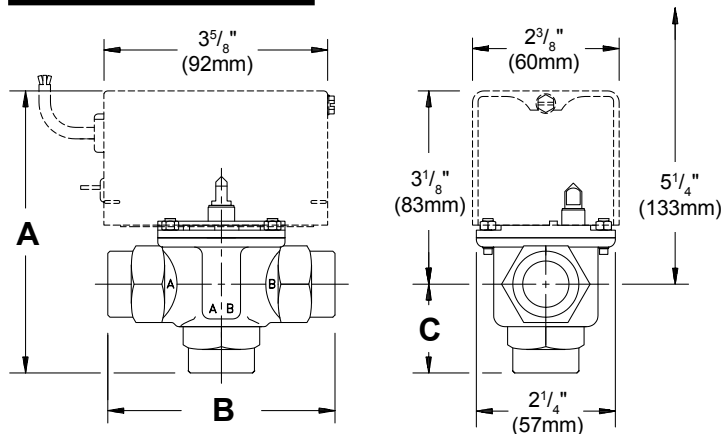
Standard and

High temp. option 375°F / 191°C

MATERIALS

1. STEM STAINLESS STEEL
2. SEAT BRASS
3. STEM O-RINGS ZOLAST™ RUBBER
4. THREADED POST BRASS
5. PRESSURE PLATE ... ISOTHERM II™
6. PADDLE ZOLAST™ RUBBER
7. BODY O-RING ZOLAST™ RUBBER
8. BODY BRASS

DIMENSIONS



INSTALLATION

Valves are labelled with "A" & "B" symbols for port identification. With 3-port valves flow is from "AB" to either "A" or "B" port. Care should be taken when soldering valve bodies so that the paddle is away from the seat. Actuators need not be removed prior to soldering or installed prior to filling system.

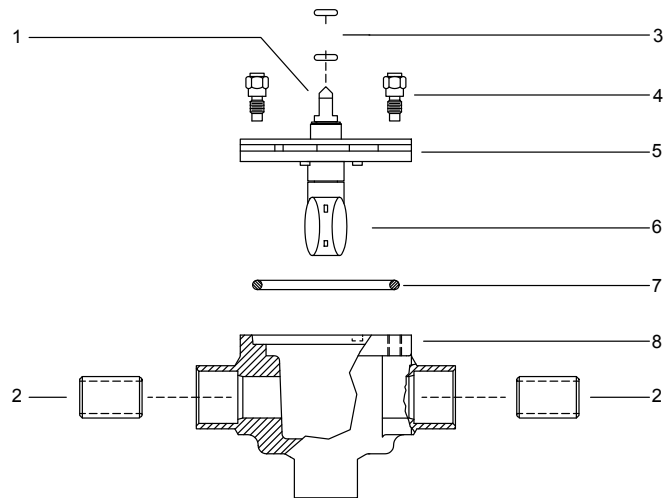
RATINGS

Orifice	Diameter		Standard or Option	Flow		Pressure	
	in.	cm		C _v	K _v	PSI	BAR
Low	3/16	.476	Option	0.8	11.4	50	3.4
Med	5/16	.794	Standard	2.9	41.4	25	1.7
High	7/16	1.11	Option	4.8	68.5	10	.68
Special High	8/16	1.27	Option	7.1	101.3	6	.40

Kv based on Litres per minute flow, with pressure drop of 1kg/cm² at 20°C.

14.504 PSI = 1 BAR

EXPLODED VIEW



Body	Size	A	B	C
C X C Sweat	1/2"	4 5/16"	3 1/8"	1 1/4"
		110mm	79mm	32mm
	3/4"	4 9/16"	3 3/4"	1 1/2"
		116mm	95mm	38mm
	1"	4 7/8"	3 7/8"	1 7/8"
		124mm	98mm	48mm
NPT BSP JIS	1/2"	4 7/8"	3 5/8"	1 3/4"
		124mm	92mm	45mm
	3/4"	4 3/4"	3 5/8"	1 3/4"
		121mm	92mm	45mm
	1"	4 7/8"	4"	1 7/8"
		124mm	102mm	48mm
Compression	1/2", 15mm	4 1/2"	3 1/4"	1 7/16"
		114mm	82.5mm	37mm
	3/4", 22mm	4 13/16"	3 11/16"	1 3/4"
		122mm	84mm	45mm
	1", 28mm	4 3/4"	3 7/8"	1 7/8"
		121mm	98mm	48mm

Flair pursues a policy of constant improvement. For this reason, all specifications are subject to change without notice.



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