

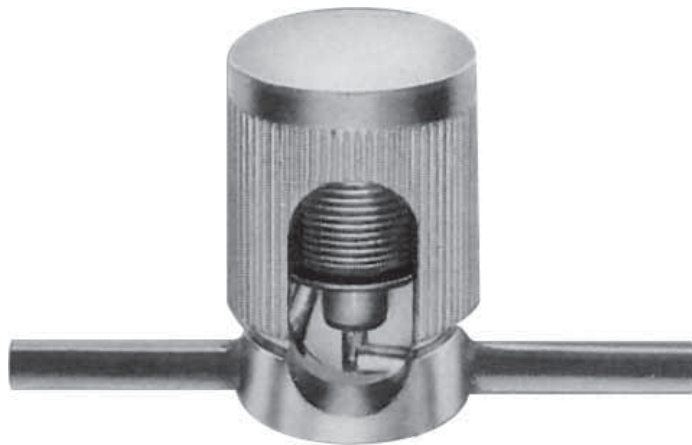


## 4500 Series

Bellows Sealed Valves  
(0.156"/3.962 mm Orifice)

### Introduction

This miniature valve can be manually or remotely operated. Operating temperatures range from -20° to +250° F (-29° to +120° C), while operating pressures range from high vacuum to 300 psig. Available in brass and Monel®, this valve can be used as a stop valve in a calibrated leak tester, and in labs where leak-tight service is necessary.



### Typical Applications

- Stop valve in calibrated leak tester
- High vacuum work
- Laboratory environments demanding leak-tight service

### Technical Data

<b>MAXIMUM OPERATING PRESSURE</b>	10 <sup>-5</sup> Torr to 300 psig
<b>TEMPERATURE RANGE</b>	-20° F to +250° F (-29° C to +120° C)
<b>ORIFICE SIZE</b>	0.156 (model 4551Q6M – 0.281 orifice)
<b>Cv FACTOR</b>	0.70 maximum
<b>INTERNAL VOLUME</b>	0.08 cubic inches

### Features & Benefits

- Protective handle limits escape of process fluid if bellows ruptures
- Bellows assembly is replaced by removing cap handle and retaining nut
- PCTFE seat is fully encapsulated to prevent cold flow
- Bellows is sealed to body with a PCTFE gasket
- Bellows and stem are one-piece assembly
- Available with female NPT or silver-soldered copper tube extensions
- One of the smallest valve types and capacities available
- Air-to-open or air-to-close operators for remote actuation are available
- Valve may be base-mounted
- Special High Tolerance NPT Thread

packless valves

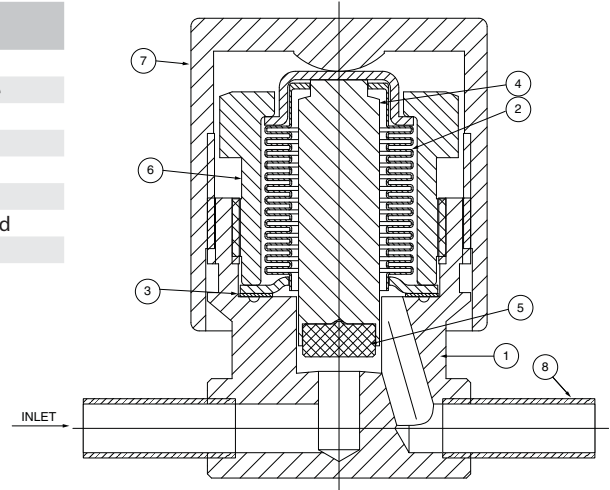
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# 4500 Series

## Materials of Construction

DESCRIPTION	4551F2B 4551Q4B	4551Q4M
1 Body	Brass	Monel®
2 Bellows	Phosphor bronze	Phosphor bronze
3 Bellows-to-body seal	PCTFE	PCTFE
4 Stem	Monel®	Monel®
5 Plug disc	PCTFE	PCTFE
6 Bellows retaining nut	Brass	Brass
7 Cap	Brass, nickle-plated	Brass, nickle-plated
8 Tube extension	Copper	Copper

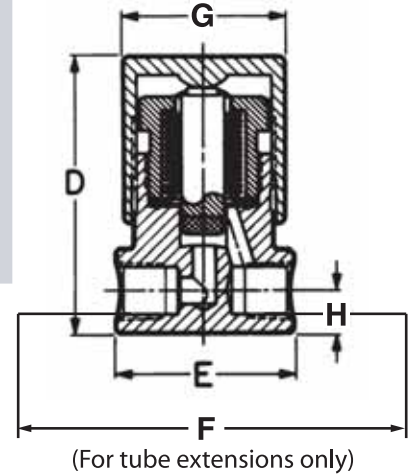


## Dimensions

CONNECTIONS	FLOW PATTERN		D	E	F	G	H
1/8" NPT Female	Straight	inch	1 29/32"	1 1/4"	1 1/4"	1 1/8"	19/64"
		mm	48	32	32	29	8
1/4" O.D Tube Extensions	Straight	inch	1 29/32"	1 1/4"	6 13/16"	1 1/8"	3/16"
		mm	48	32	173	29	5
1/4" O.D Tube Extensions	Angle	inch	1 29/32"	1 1/4"	3 13/32"	1 1/8"	3/16"
		mm	48	32	87	29	5
1/4" O.D Tube Extensions	Tee	inch	1 29/32"	1 1/4"	6 13/16"	1 1/8"	3/16"
		mm	48	32	173	29	5
3/8" O.D Tube Extensions	Straight	inch	3 13/32"	1 1/4"	9 1/4"	1 1/8"	3/16"
		mm	87	32	235	29	5

### BASE MOUNTING

2 mounting holes on 3/4" dia.  
8-32UNC-2B  
3/16" minimum full thread



Dimensions for reference only, subject to change.  
\* Straight flow pattern view shown.

## How to Order

CONNECTIONS	FLOW PATTERN	ORDER BY PART NUMBER		
		BRASS	MONEL®	Cv
1/8" NPT Female	Straight	4551F2B	—	0.21
1/4" O.D. Tube Extensions	Straight	—	4551Q4M	0.21
1/4" O.D. Tube Extensions	Straight	4551Q4B	—	0.21



Straight Pattern  
4551F2B