

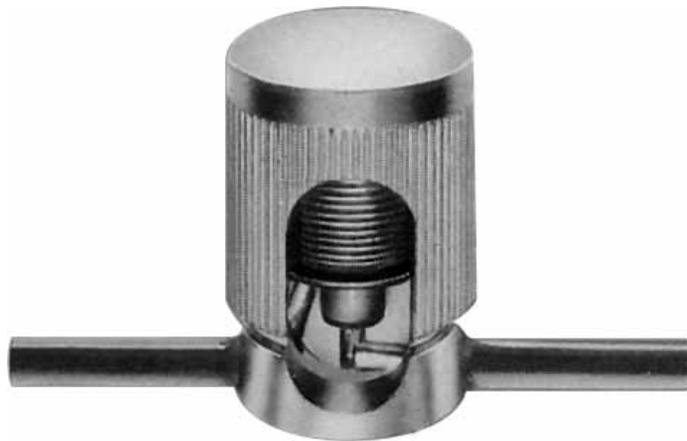


## 4500 Series

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

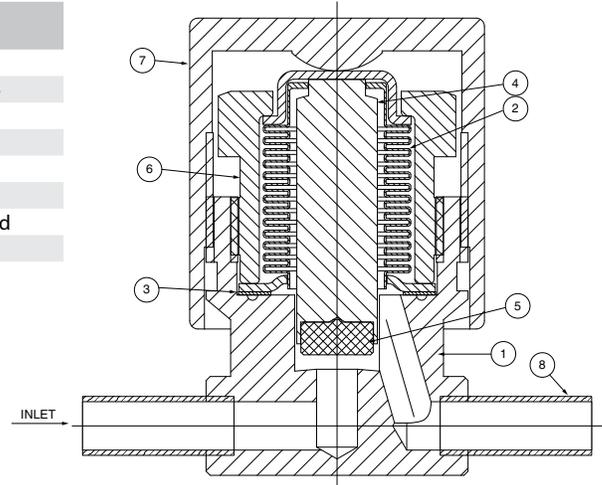
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# 4500 Series

## 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

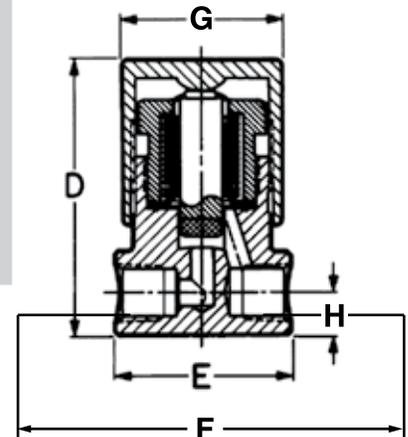


## Dimensions

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



(For tube extensions only)

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

### FOR YOUR SAFETY

IT IS SOLELY THE RESPONSIBILITY OF THE SYSTEM DESIGNER AND USER TO SELECT PRODUCTS SUITABLE FOR THEIR SPECIFIC APPLICATION REQUIREMENTS AND TO ENSURE PROPER INSTALLATION, OPERATION AND MAINTENANCE OF THESE PRODUCTS. MATERIAL COMPATIBILITY, PRODUCT RATINGS AND APPLICATION DETAILS SHOULD BE CONSIDERED IN THE SELECTION. IMPROPER SELECTION OR USE OF PRODUCTS DESCRIBED HEREIN CAN CAUSE PERSONAL INJURY OR PROPERTY DAMAGE.



Straight Pattern  
4551F2B