

BSV1 SERIES BELLOWS-SEALED VALVES

GENTEC® BSV1 series bellows-sealed valves is designed for high purity and vacuum equipments application.



BSV12 Manual Bellows-Sealed Valve
(Round Handle)



Type K Type G Type R



BSV14 Manual Bellows Sealed Valve
(Bar Handle)



BSV14 Pneumatic Bellows-Sealed Valve
(Normally Closed)

Features

- Manual and Pneumatic versions are available based on a common body design
- Panel or bottom mounting
- Working pressure up to 1000 psi (68.9bar)
- Valve stem tip options: Type K, Type G and Type R
K designates PCTFE stem tip
G designates spherical stem tip
R designates regulating stem tip
- Reliable piston design for enhanced cycle life
- 100% Helium-leak tested

Specification

- Working Pressure:
Vacuum to 1000 psi (68.9 bar), Manual
Vacuum to 500 psi (34.5 bar), Actuation Normally Open
Vacuum to 150 psi (10.3 bar), Actuation Normally Closed
- Working Temperature:
-28°C ~ 93°C (-20°F ~ 200°F), Type K
-28°C ~ 482°C (-20°F ~ 900°F), Type G and Type R
- Inboard Leak Rate: 4×10^{-9} atm.cc/sec He
Outboard Leak Rate: 4×10^{-9} atm.cc/sec He
- Cv: 0.36 (BSV12) , 1.2 (BSV14)

Materials of Construction

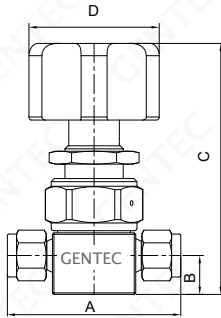
- Valve Body: 316
- Valve Stem tips: PCTFE (Type K), 316 (Type G and Type R)
- Bellows: 316

Actuator Control Specification

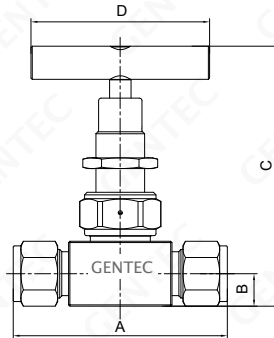
- Working Pressure: 70 ~ 125 psi (4.8 ~ 8.6 bar)
- Inlet Connection: 1/8" NPT (F)
- Setting: Normally Open, Normally Closed

Internal Volume

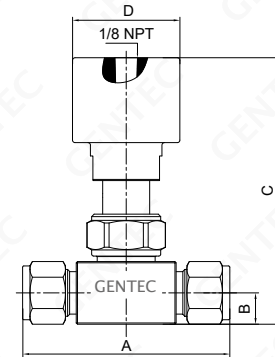
- 1.2 cc (BSV12)
- 3.7 cc (BSV14)

Dimensions (in.)


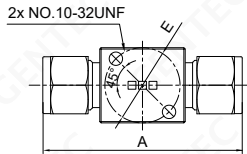
Round Handle



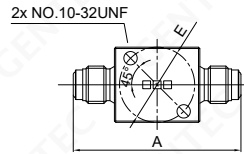
Bar Handle



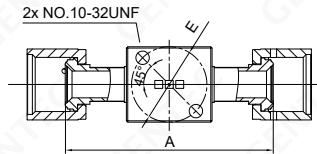
Pneumatics



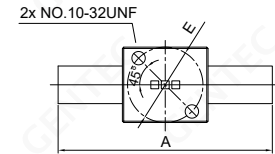
GENLOK



Face Seal Male



Face Seal Swivel Female



Butt Weld

| Model No | Orifice in. (mm) | CV | End Connections | Dimensions in. (mm) | | | | | Panel Mounting Hole Size in. (mm) |
|--------------------|---------------------|------|-----------------|------------------------|-------------|--------------|-------------|-------------|---|
| | | | | A | B | C | D | E | |
| SS-BSV12NK-TF4 | 0.18 (4.5) | 0.36 | 1/4" GENLOK | 2.46 (62.5) | 0.5 (12.7) | 3.24 (82.4) | 1.77 (45) | 1 (25.4) | 0.75 (19) |
| SS-BSV12BK-TF4 | 0.18 (4.5) | 0.36 | 1/4" GENLOK | 2.46 (62.5) | 0.5 (12.7) | 3.19 (80.9) | 1.89 (48) | 1 (25.4) | 0.75 (19) |
| SS-BSV12BK-TW4 | 0.18 (4.5) | 0.36 | 1/4" Weld Tube | 1.68 (42.7) | 0.5 (12.7) | 3.19 (80.9) | 1.89 (48) | 1 (25.4) | 0.75 (19) |
| SS-BSV12BK-VM4 | 0.18 (4.5) | 0.36 | 1/4" FSR (M) | 2.24 (56.9) | 0.5 (12.7) | 3.19 (80.9) | 1.89 (48) | 1 (25.4) | 0.75 (19) |
| SS-BSV12BK-VSF4 | 0.18 (4.5) | 0.36 | 1/4" FSR (F) | 2.76 (70.1) | 0.5 (12.7) | 3.19 (80.9) | 1.89 (48) | 1 (25.4) | 0.75 (19) |
| SS-BSV12PK-VSF4 | 0.18 (4.5) | 0.36 | 1/4" FSR (F) | 2.76 (70.1) | 0.5 (12.7) | 3.35 (85.1) | 1.65 (42) | 1 (25.4) | / |
| SS-BSV12PK-VSF4-NO | 0.18 (4.5) | 0.36 | 1/4" FSR (F) | 2.76 (70.1) | 0.5 (12.7) | 3.35 (85.1) | 1.65 (42) | 1 (25.4) | / |
| SS-BSV14BK-TF8 | 0.30 (7.7) | 1.2 | 1/2" GENLOK | 3.30 (83.8) | 0.5 (12.7) | 4.01 (101.9) | 2.76 (70) | 1.13 (28.7) | 0.75 (19) |
| SS-BSV14BK-TW8 | 0.30 (7.7) | 1.2 | 1/2" Weld Tube | 2.27 (57.7) | 0.5 (12.7) | 4.01 (101.9) | 2.76 (70) | 1.13 (28.7) | 0.75 (19) |
| SS-BSV14BK-VM8 | 0.30 (7.7) | 1.2 | 1/2" FSR (M) | 3 (76.2) | 0.46 (11.7) | 4.01 (101.9) | 2.76 (70) | 1.13 (28.7) | 0.75 (19) |
| SS-BSV14BK-VSF8 | 0.30 (7.7) | 1.2 | 1/2" FSR (F) | 3.12 (79.2) | 0.57 (14.5) | 4.01 (101.9) | 2.76 (70) | 1.13 (28.7) | 0.75 (19) |
| SS-BSV14PK-VSF8 | 0.30 (7.7) | 1.2 | 1/2" FSR (F) | 3.12 (79.2) | 0.57 (14.5) | 4.35 (110.6) | 1.71 (43.5) | 1.13 (28.7) | / |
| SS-BSV14PK-VSF8-NO | 0.30 (7.7) | 1.2 | 1/2" FSR (F) | 3.12 (79.2) | 0.57 (14.5) | 4.25 (108) | 1.71 (43.5) | 1.13 (28.7) | / |

Ordering Information

| SS | BSV1 | 2 | N | K | - TF4 | - E | - NO |
|---------|-----------------------------|----------------------|---|---|--|----------------------------------|--------------------------------------|
| Body | Model | Orifice | Actuation | Stem | Inlet/Outlet Connection | Surface Finish | Options |
| SS: 316 | BSV1: Bellows-Sealed Valves | 2: 4.5mm 4: 7.7mm | N: Round Handle B: Bar handle *Round Handle is only available for BSV12 P: Pneumatic | K: PCTFE stem tip R: Regulating stem tip G: Spherical stem tip K: PCTFE stem tip | TF4: 1/4" GENLOK VM4: 1/4" Face seal male VSF4: 1/4" Face seal swivel female TW4: 1/4" Butt weld | Blank: Ra 15 µin E: Ra 10 µin | Blank: Standard NO: Normally Open |

