

## BS Series – Higher Flow

- ▶ MOPD: 150 PSI (10 Bar)
- ▶  $C_v$  Range: 0.035 to 0.300 ( $K_v$  Range: 0.030 to 0.256)
- ▶ 4.5 Watts (Plastic Body) or 7 Watts (Metal Body)

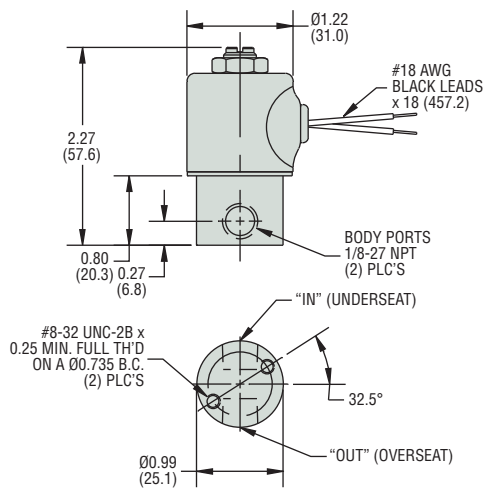
The BS Series is a 2-way, high flow, isolation valve that is designed to be virtually impervious to chemical attack and to protect high purity media. When your media cannot come in contact with any metallic materials, this highly versatile, modular valve delivers the protection you need for accurate and reliable flow control for millions of cycles. With a variety of body, and diaphragm materials, plus numerous port configurations, voltage options, and coil constructions, the BS Series is truly a miniature inert isolation valve that can be built to your exact applications requirements.

### Typical Applications

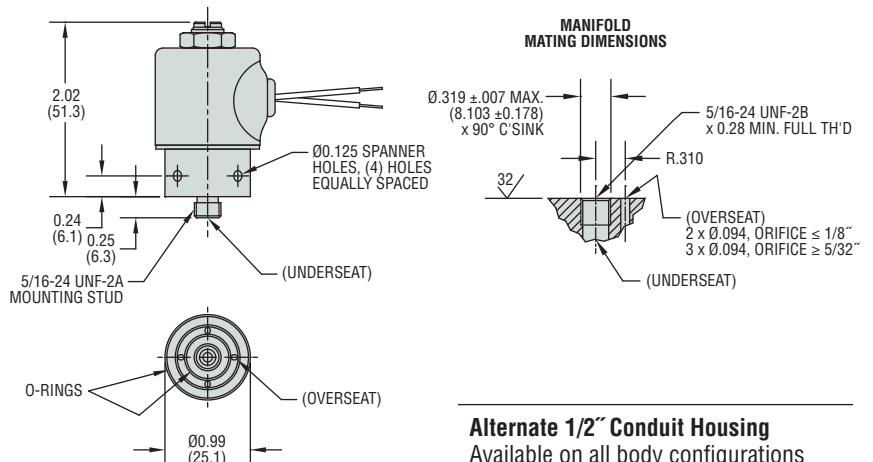
- Remediation Equipment
- Clinical Chemistry Equipment
- Analytical Instrumentation

### Dimensions

#### Threaded Port Body

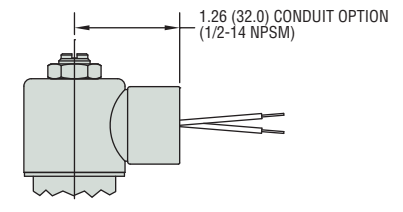


#### Manifold Mount Body



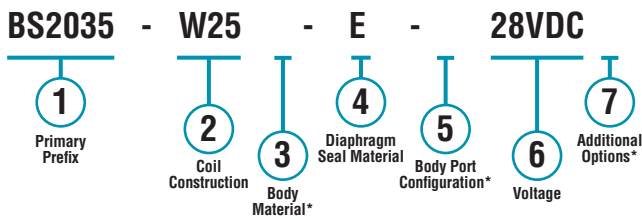
#### Alternate 1/2" Conduit Housing

Available on all body configurations



### How To Order

Use the **Bold** characters from the choices listed on the following page to construct a product code.



\* Blank entry indicates a "Standard" selection (1/8-27NPT female thread, in this case).

#### Example:

BS2035-W25-E-28VDC

2-Way N.C. Polypropylene (grommet housing, 1/8-27 NPT female thread only) solenoid valve, with 25" (63.5cm) tape-wrapped coil, lead-wires, non-standard length, EPR diaphragm seal, 1/8-27 NPT female thread, operating at 28 VDC.



Part Prefix Table ①

Body Material	Orifice		MOPD		Max Back Pressure		C <sub>v</sub>	K <sub>v</sub>	① Primary Prefix	
	Body		psig	bar	psig	bar			Body	
	inches	mm								
303 Stainless Steel <sup>1</sup>	3/64	1.19	150	10	15	0.7	0.035	0.030	BS2010	BS2020
	1/16	1.59	110	7.6	10	0.7	0.065	0.055	BS2011	BS2021
	5/64	1.98	85	6.2	10	0.7	0.090	0.077	BS2012	BS2022
	3/32	2.38	70	4.8	10	0.7	0.155	0.132	BS2013	BS2023
	7/64	2.78	25	3.1	10	0.3	0.200	0.171	BS2014	BS2024
	1/8	3.18	10	1.0	5	0.3	0.240	0.205	BS2015	BS2025
	5/32	3.97	5	0.3	5	0.3	0.300	0.256	BS2016	BS2026
Polypropylene (1/8-27 NPT Female Thread body port only)	3/64	1.19	150	10	15	0.7	0.035	0.030	BS2030	BS2040
	1/8	3.18	10	1.0	5	0.3	0.240	0.205	BS2035	BS2045

\* Other body orifice sizes may be available, consult factory.

### ② Coil Construction

(blank) = Tape-wrapped, Class-B, with 18" (45.7cm) lead-wires\*

W\_\_ = Tape-wrapped coil, lead-wires, non-standard length (specify in inches)

1 = Encapsulated coil, Class-B, lead-wires

3 = Encapsulated coil, Class-H, lead-wires

4 = Encapsulated coil, Class-B, 1/4" (6.35mm) spade terminals  
- 3/16" (4.76mm) spade optional

10 = Externally rectified coil (lead-wires only)

11 = Tape-wrapped coil, Class-H, lead-wires

HC2 = Encapsulated coil, Class-B, EN175301-803 Style C, Industrial, 9.4mm, 2+1 poles

### ③ Body Material (Replaces Standard 303 SS)

BB = Brass

SB = 304 Stainless Steel

SB5 = 316 Stainless Steel

### ④ Diaphragm Seal Material

(blank) = Viton® diaphragm\*

E = EPR diaphragm

NS = Nitrile (NSF/FDA) diaphragm

PF = Perfluoroelastomer diaphragm

### ⑤ Body Port Configuration

(blank) = 1/8-27 NPT female thread\*

LB = 1/4-18 NPT female thread<sup>2</sup>

BD = #10-32 female straight thread

- max. orifice = 1/8" (3.18mm)<sup>2</sup>

LT = 1/8-28 BSPT female thread<sup>2</sup>

LU = 1/4-19 BSPT female thread<sup>2</sup>

MM = Manifold mount (1/4-28 UNF-2A mounting stud)<sup>†2</sup>

MM3 = Manifold mount (5/16-24 UNF-2A mounting stud)<sup>†2</sup>

OB = Omit body (operator style)<sup>2</sup>

BI = Bottom over-seat port, female thread

- max. orifice = 1/8" (3.18mm)<sup>2</sup>

BIM = Bottom over-seat port, 1/8-27 NPT male thread

- max. orifice = 5/64" (1.98mm), brass body only<sup>2</sup>

BO = Bottom under-seat port, female thread<sup>2</sup>

BOM = Bottom under-seat port, 1/8-27 NPT male thread

- max. orifice = 1/8" (3.18mm), brass body only<sup>2</sup>

RL = 90° porting - left hand<sup>2</sup>

RR = 90° porting - right hand<sup>2</sup>

### ⑥ Voltage

\_\_VDC = DC (specify voltage)

\_\_VAC = AC Rectified only (specify voltage)

### ⑦ Additional Options

WM = Mounting bracket

OC = Cleaned for oxygen use

\* Standard selection; will be used unless otherwise specified. Standard selections are not referenced in final part number.

#### Notes

- Use Prefixes from these rows if you want to use any of the other Body Materials listed under selection ③. Simply add the respective material code in the 3rd part number position (See Example).
- Not available with Polypropylene bodies.

† Teflon® o-ring not suitable for manifold mount.

Gems specializes in the design and manufacturing of custom solenoid valves and fluidic systems. If you don't see what you're looking for, or have a question, contact us at 800-378-1600 or info@gemssensors.com.