

AS Series

- ▶ MOPD: 110 PSI (Plastic Body) or 150 PSI (Metal Body)
- ▶ C_v Range: 0.020 to 0.300
- ▶ 4.5 Watts (Plastic Body) or 7 Watts (Metal Body)

The AS Series is a 2-way isolation valve, designed to control the flow of various aggressive liquids and gases with several body and diaphragm materials. With a modular design, the AS offers performance flexibility and the protection your media needs from the solenoid's internal components. Numerous port configurations, voltage options, and coil constructions enable the AS Series to be a truly versatile miniature inert isolation valve, easily integrated into any complex or demanding system.

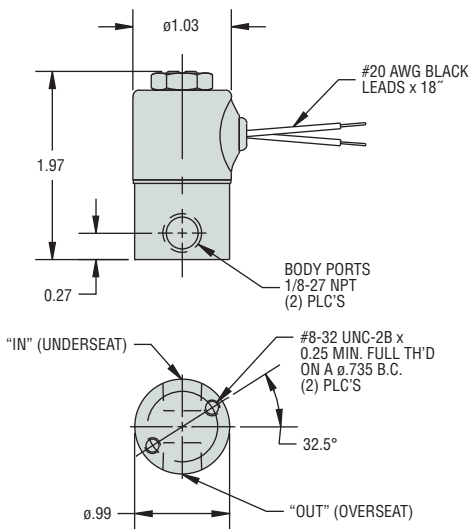
Typical Applications

- Analytical Instruments
- Clinical Diagnostic Analyzers
- Bio-Instrumentation

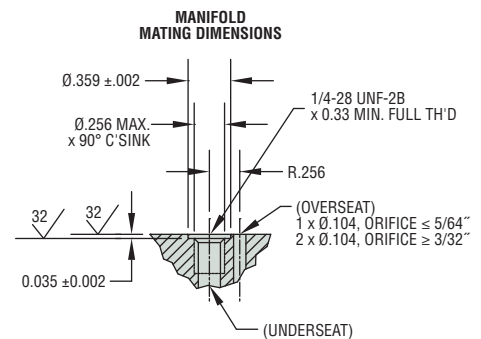
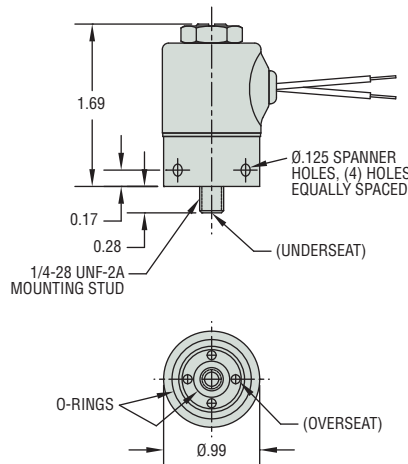


Dimensions

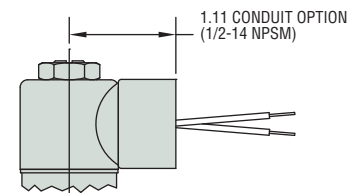
Threaded Port Body



Manifold Mount Body

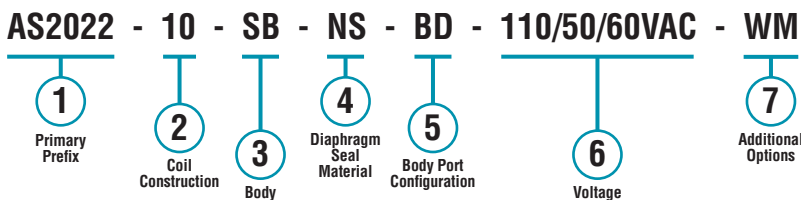


Alternate 1/2" Conduit Housing Available on all body configurations



How To Order

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



Example:

AS2022-10-SB-NS-BD-110/50/60VAC-WM

2-Way N.C. (1/2" conduit housing) solenoid valve, with externally rectified coil (lead-wires only), 304 stainless steel body, nitrile (NSF/FDA) diaphragm seal, #10-32 female straight thread, operating at 110/50/60 Volt AC with rectified coil and mounting bracket.

Notes

1. After the Primary Prefix, any "-Code" may be blank when standard (blank) selections are specified.
2. The Body Material option code, when specified, supercedes the standard body material indicated by the Primary Prefix.

Part Prefix Table ①

Body Material	Orifice	MOPD (psig)	Max Back Pressure	C _v	① Primary Prefix	
	Body				BODY	Grommet Housing
303 Stainless Steel ¹	1/32	150	10	0.020	AS2011	AS2021
	3/64	110	10	0.035	AS2012	AS2022
	1/16	90	10	0.065	AS2013	AS2023
	5/64	70	10	0.090	AS2014	AS2024
	3/32	45	10	0.155	AS2015	AS2025
	1/8	15	5	0.240	AS2016	AS2026
	5/32	5	5	0.300	AS2017	AS2027
Polypropylene (1/8-27 NPT Female Thread body port only)	3/64	110	10	0.035	AS2032	AS2042
	1/8	15	10	0.240	AS2036	AS2046

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

② Coil Construction

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

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

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

2 = Molded coil, Class-F, lead-wires

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

4 = Encapsulated coil, Class-B, 3/16" spade terminals (1/4" 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 thread²

BD = #10-32 female straight thread (max. orifice = 1/8")²

LT = 1/8-28 BSPT female thread²

LU = 1/4-19 BSPT female thread²

MM = Manifold mount (1/4-28 UNF-2A mounting stud)^{2†}

MM3 = Manifold mount (5/16-24 UNF-2A mounting stud)^{2†}

OB = Omit body (operator style)²

BI = Bottom over-seat port, female thread (max. orifice = 1/8")²

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

(max. orifice = 5/64", brass body only)²

BO = Bottom under-seat port, female thread²

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

(max. orifice = 1/8", brass body only)²

RL = 90° porting - left hand²

RR = 90° porting - right hand²

⑥ Voltage

___ VDC = DC (specify voltage)

___ VAC = AC Rectified only (specify voltage)

⑦ Additional Options

Y = Yoke

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.

BS Series – Higher Flow

- ▶ MOPD: 150 PSI (Plastic Body) or 150 PSI (Metal Body)
- ▶ C_v Range: 0.035 to 0.300
- ▶ 4.5 Watts (Plastic Body) or 7 Watts (Metal Body)

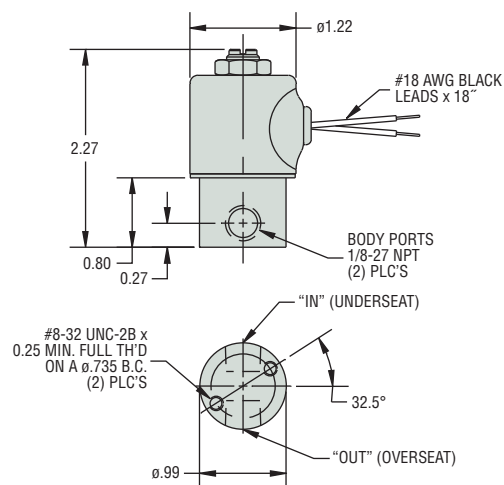
The BS Series is a 2-way, high flow, isolation valve that is designed to be virtually impervious to chemical attack and to protect high purity media. When your media cannot come in contact with any metallic materials, this highly versatile, modular valve delivers the protection you need for accurate 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

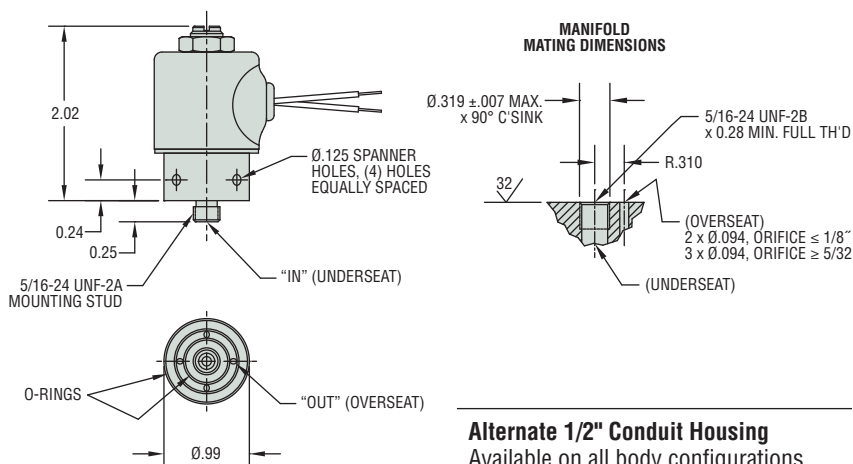
- Remediation Equipment
- Clinical Chemistry Equipment
- Analytical Instrumentation

Dimensions

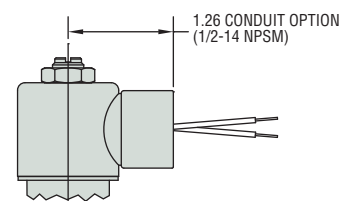
Threaded Port Body



Manifold Mount Body

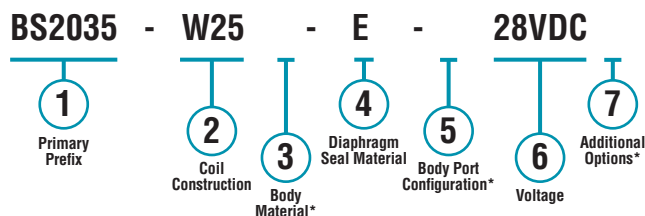


Alternate 1/2" Conduit Housing Available on all body configurations



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" 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 (psig)	Max Back Pressure	C _v	① Primary Prefix	
	Body				Grommet Housing	Conduit Housing
303 Stainless Steel ¹	3/64	150	15	0.035	BS2010	BS2020
	1/16	110	10	0.065	BS2011	BS2021
	5/64	85	10	0.090	BS2012	BS2022
	3/32	70	10	0.155	BS2013	BS2023
	7/64	25	10	0.200	BS2014	BS2024
	1/8	10	5	0.240	BS2015	BS2025
	5/32	5	5	0.300	BS2016	BS2026
Polypropylene (1/8-27 NPT Female Thread body port only)	3/64	150	15	0.035	BS2030	BS2040
	1/8	10	5	0.240	BS2035	BS2045

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

② Coil Construction

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

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

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

10 = Externally rectified coil (lead-wires only)

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BD = #10-32 female straight thread (max. orifice = 1/8")²

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LU = 1/4-19 BSPT female thread²

MM = Manifold mount (1/4-28 UNF-2A mounting stud)¹²

MM3 = Manifold mount (5/16-24 UNF-2A mounting stud)¹²

OB = Omit body (operator style)²

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

(max. orifice = 5/64", brass body only)²

BO = Bottom under-seat port, female thread²

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

(max. orifice = 1/8", brass body only)²

RL = 90° porting - left hand²

RR = 90° porting - right hand²

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.

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