

A Series

- ▶ MOPD: 1000 PSI (69 Bar)
- ▶ C_v Range: 0.019 to 0.3 (K_v Range: 0.016 to 0.256)
- ▶ 6 Watts

The A Series gives you a highly adaptable design for practically all applications requiring flow between C_v 0.019 and 0.300 (K_v 0.016 to 0.259). This robust 2- or 3-way miniature solenoid utilizes a stainless steel body to resist corrosion for most acids, alkaline solutions, and harsh environments. Also available in plastic—from polypropylene to Delrin®—when specific inert or demanding requirements are needed. Available in numerous port configurations, orifice sizes, and material combinations, the A Series is a highly flexible valve that fulfills the requirements for most applications.

Typical Applications

Stainless Steel Bodies:

- Medical Equipment
- Laboratory Equipment
- Food Processing Equipment

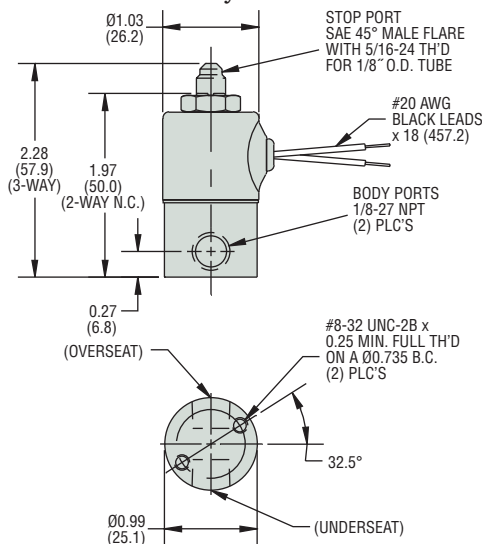
Brass Bodies:

- Industrial Applications
- Automotive
- Water Transfer Systems

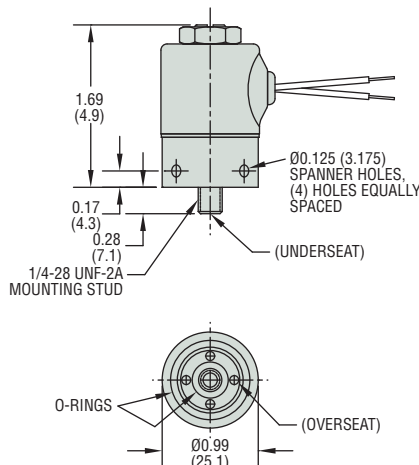


Dimensions

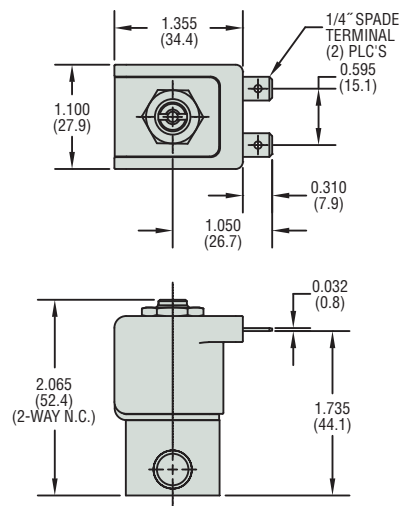
Threaded Port Body



Manifold Mount Body



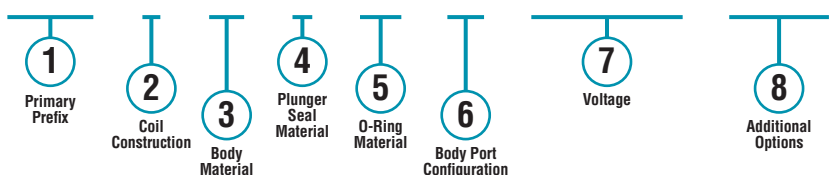
Molded Coil



How To Order

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

A2213 - 3 - BB - N - NO - LB - 110/60VAC - WM-TP



Note: After the Primary Prefix, any "-Code" may be blank when standard (blank) selections are specified.

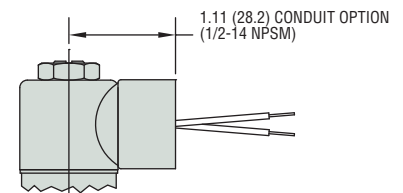
Example:

A2213-3-BB-N-NO-LB-110/60VAC-WM-TP

2-Way N.O. (with 1/8"-27 NPT stop port adaptor) solenoid valve, with brass body, neoprene plunger seal, neoprene O-ring, 1/4"-18 FNPT body ports, operating at 110/60 VAC/Hz, and includes the mounting bracket and PTFE coated plunger options.

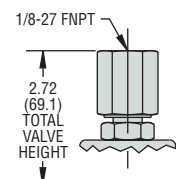
Alternate 1/2" Conduit Housing

Available on all body configurations



Stop Port

Standard on 2-way N.O.;
Option "AD" on 3-Way.



Part Prefix Table ①

	Orifice				MOPD		C _v		K _v		① Primary Prefix	
	Body		Stop		psig	bar	Body	Stop	Body	Stop	Grommet Housing	Conduit Housing
	inches	mm	inches	mm								
2-WAY N.C.	1/32	0.79	—	—	1000	69	0.020	—	0.017	—	A2011	A2021
	3/64	1.19	—	—	500	34	0.035	—	0.030	—	A2012	A2022
	1/16	1.59	—	—	300	21	0.065	—	0.055	—	A2013	A2023
	5/64	1.98	—	—	200	14	0.090	—	0.077	—	A2014	A2024
	3/32	2.38	—	—	175	12	0.155	—	0.132	—	A2015	A2025
	1/8	3.18	—	—	100	6.9	0.240	—	0.205	—	A2016	A2026
	5/32	3.97	—	—	50	3.4	0.300	—	0.256	—	A2017	A2027
2-WAY N.O. (option AD standard)	—	—	1/32	0.79	200	14	—	0.019	—	0.016	A2211	A2221
	—	—	3/64	1.19	150	10	—	0.040	—	0.034	A2212	A2222
	—	—	1/16	1.59	100	6.9	—	0.075	—	0.064	A2213	A2223
3-WAY N.C. Free Vent	1/32	0.79	1/32	0.79	200	14	0.019	0.019	0.016	0.016	A3011	A3021
	3/64	1.19	3/64	1.19	150	10	0.040	0.040	0.034	0.034	A3012	A3022
	1/16	1.59	3/64	1.19	100	6.9	0.070	0.040	0.060	0.034	A3013	A3023
	1/16	1.59	1/16	1.59	75	5.2	0.070	0.070	0.060	0.060	A3014	A3024
	3/32	2.38	3/64	1.19	50	3.4	0.170	0.040	0.145	0.034	A3015	A3025
3-WAY N.C. Line Connection	1/32	0.79	1/32	0.79	200	14	0.019	0.019	0.016	0.016	A3111	A3121
	3/64	1.19	3/64	1.19	150	10	0.040	0.040	0.034	0.034	A3112	A3122
	1/16	1.59	3/64	1.19	100	6.9	0.070	0.040	0.060	0.034	A3113	A3123
	1/16	1.59	1/16	1.59	75	5.2	0.070	0.070	0.060	0.060	A3114	A3124
	3/32	2.38	3/64	1.19	50	3.4	0.170	0.040	0.145	0.034	A3115	A3125
3-WAY N.O.	1/32	0.79	1/32	0.79	150	10	0.019	0.019	0.016	0.016	A3211	A3221
	3/64	1.19	3/64	1.19	100	6.9	0.040	0.040	0.034	0.034	A3212	A3222
	1/16	1.59	3/64	1.19	90	6.2	0.070	0.040	0.060	0.034	A3213	A3223
	1/16	1.59	1/16	1.59	75	5.2	0.070	0.070	0.060	0.060	A3214	A3224
	3/32	2.38	3/64	1.19	50	3.4	0.170	0.040	0.145	0.034	A3215	A3225
3-WAY Multi Purpose	1/32	0.79	1/32	0.79	125	8.6	0.019	0.019	0.016	0.016	A3311	A3321
	3/64	1.19	3/64	1.19	100	6.9	0.040	0.040	0.034	0.034	A3312	A3322
	1/16	1.59	3/64	1.19	90	6.2	0.070	0.040	0.060	0.034	A3313	A3323
	1/16	1.59	1/16	1.59	75	5.2	0.070	0.070	0.060	0.060	A3314	A3324
	3/32	2.38	3/64	1.19	25	1.7	0.170	0.040	0.145	0.034	A3315	A3325
3-WAY Directional Control	1/32	0.79	1/32	0.79	225	16	0.019	0.019	0.016	0.016	A3411	A3421
	3/64	1.19	3/64	1.19	150	10	0.040	0.040	0.034	0.034	A3412	A3422
	1/16	1.59	3/64	1.19	100	6.9	0.070	0.040	0.060	0.034	A3413	A3423
	1/16	1.59	1/16	1.59	75	5.2	0.070	0.070	0.060	0.060	A3414	A3424
	3/32	2.38	3/64	1.19	50	3.4	0.155	0.040	0.132	0.034	A3415	A3425

2 Coil Construction

- (blank)** = Tape-wrapped, Class B, with 18" (45.7cm) lead wires*
- W** ___ = Tape-wrapped coil, lead wires, non-standard length (specify length)
- 1** = Encapsulated coil, Class B, lead wires
- 2M** = Over molded coil, Class F, lead wires
- 3** = Encapsulated coil, Class H, lead wires
- 3M** = Over molded coil, Class H, lead wires
- 4** = Encapsulated coil, Class B, 3/16" (4.76mm) spade terminals
- 5M** = Over molded coil, Class F, 1/4" (6.35mm) spade terminals
- 6M** = Over molded coil, Class H, 1/4" (6.35mm) spade terminals
- 10** = Externally rectified coil, AC Voltages (lead wires only)
- 11** = Tape-wrapped coil, Class H, lead wires
- HC2** = Encapsulated coil, Class B, EN175301-803 Form C DIN, Industrial, 9.4mm, 2+1 poles

3 Body Material

- (blank)** = 303 Stainless Steel*
- BB** = Brass
- SB** = 304 Stainless Steel
- SB5** = 316 Stainless Steel
- SBF** = 430F Stainless Steel


4 Plunger Seal Material

- (blank)** = Nitrile*
- E** = EPR
- GV** = Gasoline Viton® (2-way N.C. valves only)
- N** = Neoprene
- NS** = Nitrile (NSF/FDA, 2-way N.C. valves only)
- PF** = Perfluoroelastomer
- R** = Rulon® (2-way N.C. valves only)
- T** = PTFE
- V** = Viton®

5 O-Ring Material

- (blank)** = Nitrile*
- EO** = EPR
- NO** = Neoprene
- NSO** = Nitrile (NSF/FDA, 2-way N.C. valves only)
- PFO** = Perfluoroelastomer
- TO** = PTFE
- VO** = Viton®

6 Body Port Configuration

- (blank)** = 1/8-27 NPT female thread* 
- LB** = 1/4-18 NPT female thread
- BD** = #10-32 female straight thread
 - max. orifice = 1/8" (3.18mm)
- LT** = 1/8-28 BSPT female thread (2-way N.C. valves only)
- LU** = 1/4-19 BSPT female thread (2-way N.C. valves only)
- MM** = Manifold mount (1/4-28 UNF-2A mounting stud)^{†††}
- MM3** = Manifold mount (5/16-24 UNF-2A mounting stud)^{†††}
- OB** = Omit body (operator style)
- MB** = Bottom metering - max. orifice = 3/32" (2.38mm)
- BI** = Bottom over-seat port, female thread
 - max. orifice = 1/8" (3.18mm)
- BIM** = Bottom over-seat port, 1/8-27 NPT male thread
 - max orifice = 5/64" (1.98mm) brass body only
- BO** = Bottom under-seat port, female thread
- BOM** = Bottom under-seat port, 1/8-27 NPT male thread
 - max orifice = 1/8" (3.18mm) brass body only
- RL** = 90° porting - left hand
- RR** = 90° porting - right hand
- BS** = Stop port, #10-32 female straight thread[†]

7 Voltage^{††} (see note below)

- C203** = 12 VDC
- C204** = 24 VDC
- C301** = 120/50/60R (add Coil Option -10)
- C303** = 240/50/60R (add Coil Option -10)
- ___ **VDC** = DC (specify DC voltage)
- ___ **VAC** = AC (specify AC voltage; includes copper shading ring)

8 Additional Options

- Y** = Yoke
- WM** = Mounting bracket
- TP** = PTFE coated plunger
- AD** = 1/8 - 27 NPT stop port adapter (3-way valves only)
- QQ** = Quiet operation (2-way valves only)
- S** = Silver shading ring
- OC** = Cleaned for oxygen use
- VAC** = Vacuum application - 0 to 29.5" Hg (0 to 1000mBar)
- G1** = One-piece 303 Stainless Steel guide assembly
- G5** = One piece 316 Stainless Steel guide assembly

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

† Plastic body available, contact Gems.
 †† Can be AC rectified without shading ring. Use coil construction Code 10.
 ††† 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.