

# BL Series – Latching Valve

- ▶ 2 Way or 3 Way Valves
- ▶ Low Power Requirements
- ▶ MOPD: 100 PSI (6.9 bar)
- ▶ Dual Diode Protection Optional

The BL series latching valve allows the user to pulse the valve and have it change state. The voltage does not need to be constantly applied in order to hold it in a state. These valves are ideal for controlling larger pneumatic valves in remote applications where power is limited or when the temperature of the media cannot be impacted as it flows through the valve. The larger pneumatic valves can close and open large pipes and these latching valves control them. The term Latch refers to the valve in the open state where supply pressure goes to the external valve. The unlatched state is when the supply is cut off and the external valve is exhausted to ambient.

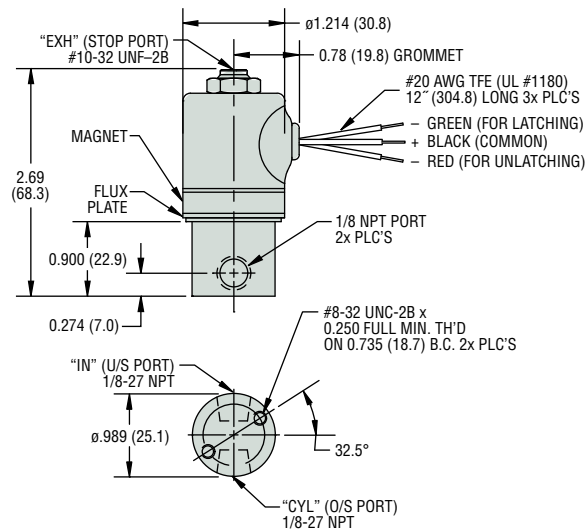


## Typical Applications

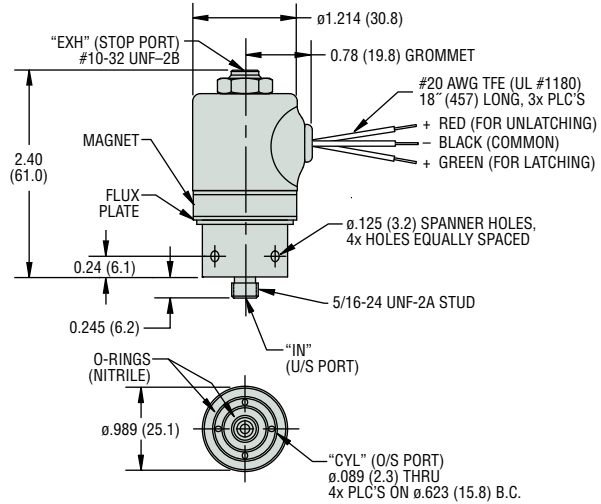
- Natural Gas Plunger Lifts
- Natural Gas Separators
- Gas Chromatography
- Irrigation Systems

## Dimensions

### Threaded Port Body

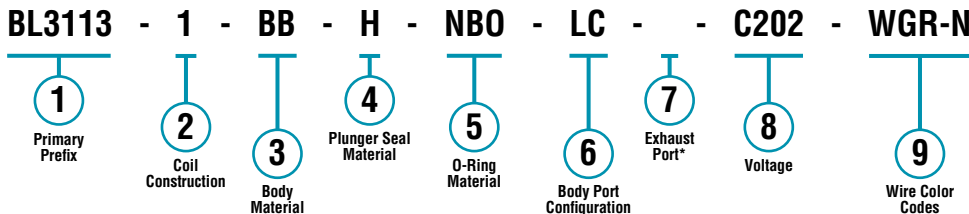


### Manifold Mount Body



## 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 (#10-32 female thread, in this case).

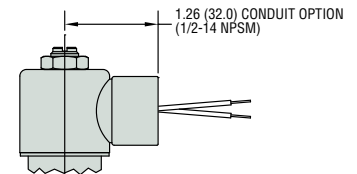
### Example:

BL3113-1-BB-H-NBO-LC-C202-WGR-N

3-Way Latching valve, 18" epoxy coil, brass body, Hydrin® seal, Nitrile® o-ring, 1/8" NPT body port, free vent 6 Vdc coil, White/Common, Green/Latch, Red/Unlatch negative pulse leads.

## Alternate 1/2" Conduit Housing

Available on all body configurations



SOLENOID VALVES

Part Prefix Table ①

	Orifice				MOPD		C <sub>v</sub>		K <sub>v</sub>		① Primary Prefix	
	Body		Stop		psi	bar	Body	Stop	Body	Stop	Grommet Housing	Unfilled Conduit Housing
	inches	mm	inches	mm								
3-WAY	1/32	0.79	3/64	1.19	100	6.9	0.018	0.040	0.0153	0.034	BL3111	BL3121
	1/16	1.59	1/16	1.59	50	3.4	0.070	0.070	0.060	0.060	BL3113	BL3123
2-WAY	1/16	1.59	—	—	240	16.5	0.065	—	0.056	—	BL2011	BL2021
	5/64	1.98	—	—	180	12.4	0.09	—	0.078	—	BL2012	BL2022
	3/32	2.38	—	—	150	10	0.155	—	0.134	—	BL2013	BL2023
	7/64	2.78	—	—	120	8.3	0.2	—	0.173	—	BL2014	BL2024
	1/8	3.18	—	—	90	6.2	0.24	—	0.208	—	BL2015	BL2025
	5/32	3.97	—	—	60	4.1	0.3	—	0.259	—	BL2016	BL2026
	3/16	4.76	—	—	30	2.1	0.43	—	0.372	—	BL2017	BL2027

② Coil Construction

- 1 = Encapsulated Coil, Class-B (130°C), Lead Wires 18" Long, #20 AWG
- 2 = Encapsulated Coil, Class-F (155°C), Lead Wires 18" Long, #20 AWG

③ Body Material

- BB = Brass
- SB1 = 303 Stainless Steel
- SB5 = 316 Stainless Steel

④ Plunger Seal Material

- H = Hydrin®
- V = Viton®
- PF = Perfluoroelastomer

⑤ O-Ring Material

- NBO = Nitrile®
- VO = Viton®
- PFO = Perfluoroelastomer

⑥ Body Port Configuration

- LC = 1/8" NPT female ports
- LD = 1/4" NPT female ports
- MM3 = Manifold-Mount (5/16" thread stud)

⑦ Exhaust Port

- (blank) = #10-32 female thread\*
- AB = 1/8" Brass Barb Fitting
- AD = 1/8" NPT Brass Adapter

⑧ Voltage

- C202 = 6 VDC, 7 Watts Latching, 5 Watts Unlatching
- C203 = 12 VDC, 9 Watts Latching, 7 Watts Unlatching
- C204 = 24 VDC, 9 Watts Latching, 7 Watts Unlatching
- C202D = 6 VDC, 7 Watts Latching, 5 Watts Unlatching with internal diodes
- C203D = 12 VDC, 9 Watts Latching, 7 Watts Unlatching with internal diodes
- C204D = 24 VDC, 9 Watts Latching, 7 Watts Unlatching with internal diodes

⑨ Wire Color Codes

- WGR-N = White common (+), Green latch (-), Red Unlatch (-)
- BRG-P = Black common (-), Red latch (+), Green Unlatch (+)
- BGR-N = Black common (+), Green latch (-), Red Unlatch (-)

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