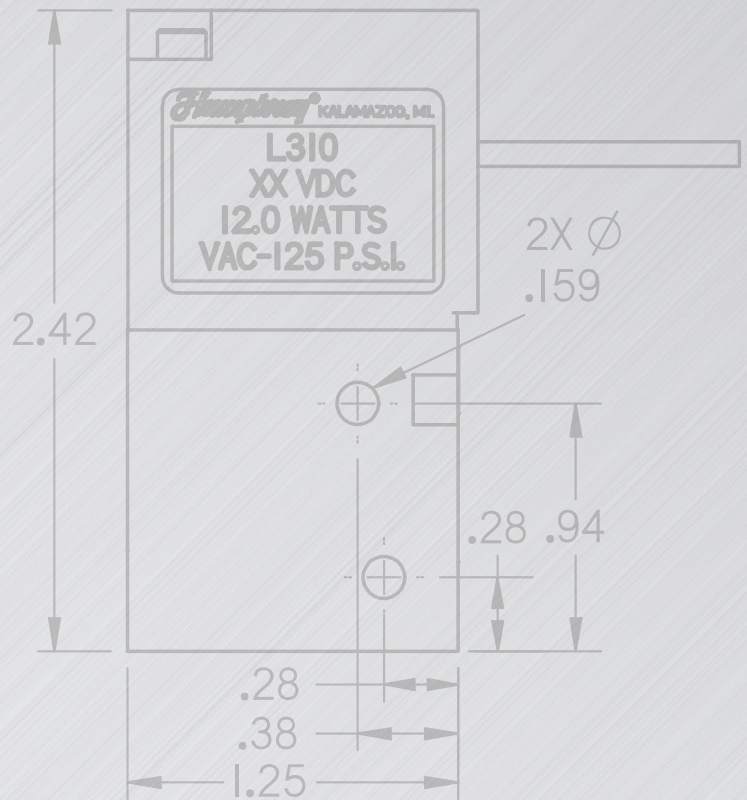
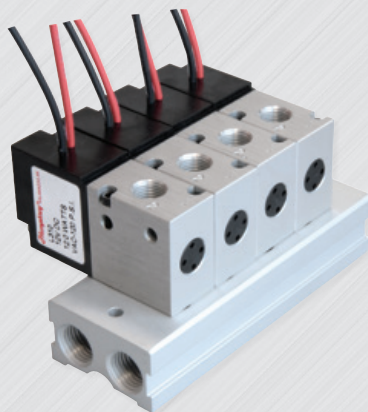


L310 Latching Solenoid Valve

2- or 3-way, Direct Solenoid



The L310 Series is a compact, high flow, 3-port latching solenoid valve. The valve is produced to Humphrey's industry leading, stringent leakage requirements and is based on the popular and proven 310 Series Direct-Acting Valves.

MADE IN USA



L310 Latching Solenoid Valve

Developed from proven Humphrey balanced-poppet technology, the L310 latching valve is optimized for applications that demand low power consumption and low heat generation.

ENERGY SAVINGS

Traditional single solenoid, spring return valves require electrical power while in the energized position. In contrast, the L310 Single Solenoid, Latching Valve changes state with a short 100 millisecond pulse to the solenoid. When power is removed, latching function holds valve positioned, thereby offering significant energy savings to a traditional valve. To return valve to its original state, simply apply a second 100 millisecond pulse of opposite polarity.

Latching Valves are beneficial when valve is to be open for long periods of time, when battery power is used, or when continuous power supply is limited.

MULTIPLE PURPOSE

With source pressure always to port 1, L310 is suitable as 2- or 3-way function for stable or variable pressures ranging from vacuum to 125 PSI. Plug port 3 for 2-way. Use as pressure selector with higher source pressure to port 1. Consult factory for diverting function. L310 may be mounted on 410M Series manifolds, with or without 310 and 410 Series single solenoid valves.



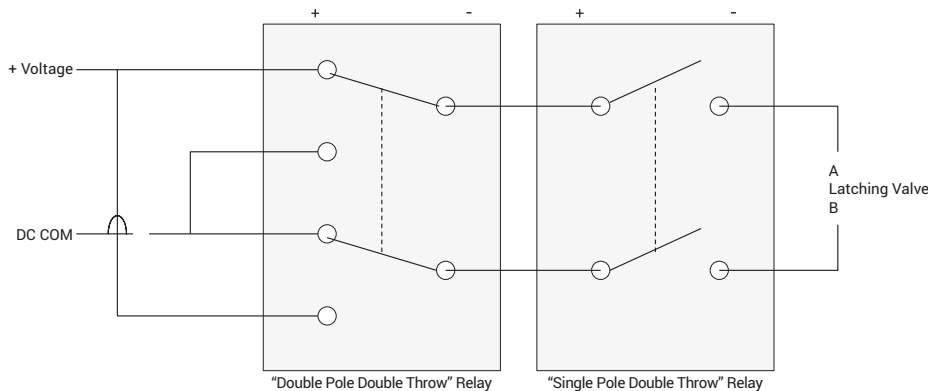
HEAT RISE MINIMIZED

Traditional single solenoid, spring return valves generate heat while in energized state. L310 Single Solenoid, Latching Valve does not require energy to maintain position. Heat rise is temporary and minimized. L310 is ideal for applications where the effect of temperature is a concern.

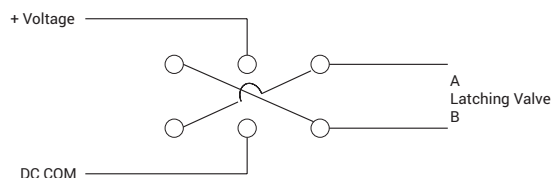
ELECTRICAL CONTROL

L310 is 2-wire type latching valve, therefore requiring electrical current to flow in one direction to open flow and opposite direction to close flow. Either schematic, below, will accomplish function.

RELAY EXAMPLE



2-POLE "MOMENTARY" MANUAL SWITCH EXAMPLE



2-POLE SWITCH SOURCES:

NKK Switches: M2028
CW Industries: GTB3B17
APEM: 647H

FEATURES

- Multi-purpose, compact, high flow, and low cost
- Operates reliably from vacuum to 125 PSI
- Consult factory for diverter or selector function.
- Plug 3 port for 2-way function.
- Coil is encapsulated.
- Produced to Humphrey's industry leading, stringent leakage requirements.
- Made in USA.
- RoHS compliant.

SPECIFICATIONS	L310
TYPE OF OPERATION	Direct Solenoid, Latching
FUNCTION	3-port Detented
PIPING TYPE	Inline, Direct Piping
PORTS	1/8 NPSF
MEDIA	Air (Dry or Lubricated), Inert Gases, Vacuum
WETTED MATERIALS	Aluminum, ENP Brass, SST, Nickel plated steel, FKM
PRESSURE RANGE	28" Hg – 125 PSI
FLOW (Cv)	0.24
AMBIENT TEMPERATURE	32° to 125° F (0-50° C)
POWER CONSUMPTION (WATTS)	12
MAX. DUTY CYCLE	15%
MAX LEAKAGE (@125 PSI)	4ccm
SHOCK RESISTANCE (G)	15 (axial direction)
LUBRICATION	Not required. If used, ensure compatibility with Buna materials.
FILTRATION	40 micron, recommended
MIN. PULSE WIDTH	100ms
VOLTAGE TOLERANCE	±10%
POWER CONSUMPTION (WATTS)	12
WEIGHT – OZ (GRAMS)	.25 lbs (114)

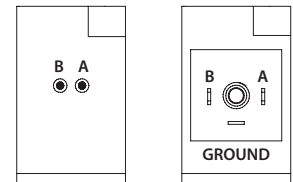
TERMINAL DESIGNATION

By applying positive DC Voltage to "A" Terminal and Negative to the "B" Terminal, valve will open Port 1 to Port 2. When the polarity is reversed, valve shifts and Port 2 opens to Port 3.

It is responsibility of the user to provide a polarity switching method. Wiring diagrams using either 2-pole switch or relay are depicted on Page 2.

L310 LEAD WIRE VALVES:

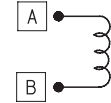
- "A" Terminal = Red lead wire
- "B" Terminal = Black lead wire



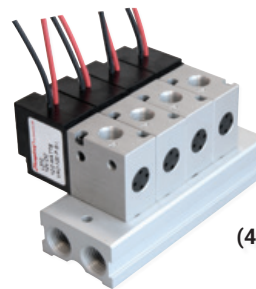
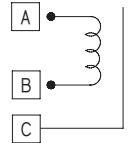
LEAD WIRE

DIN - 39

DC SCHEMATIC

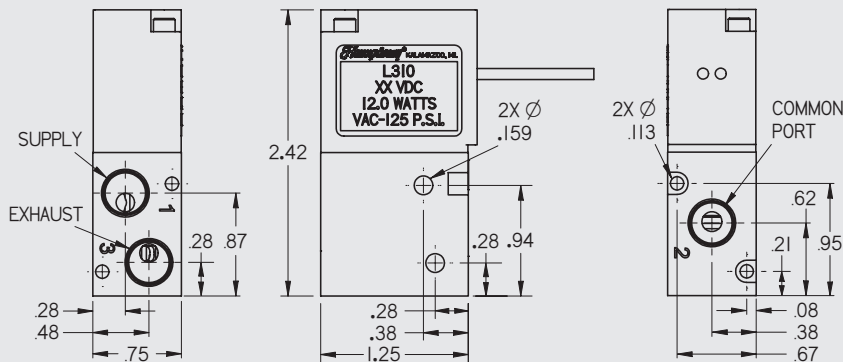


DC DIN SCHEMATIC

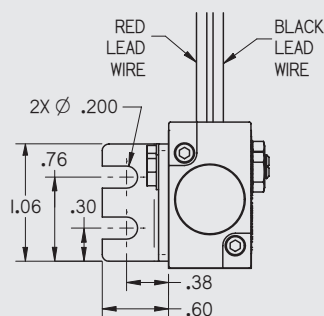


(4) L310 VALVES ON 410M MANIFOLD

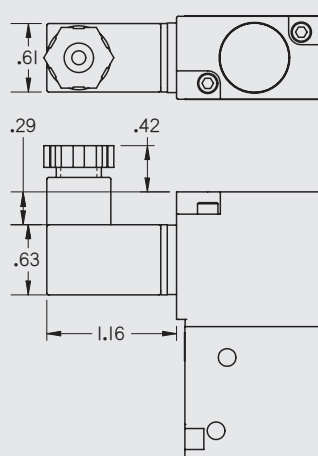
DIMENSIONAL DRAWINGS



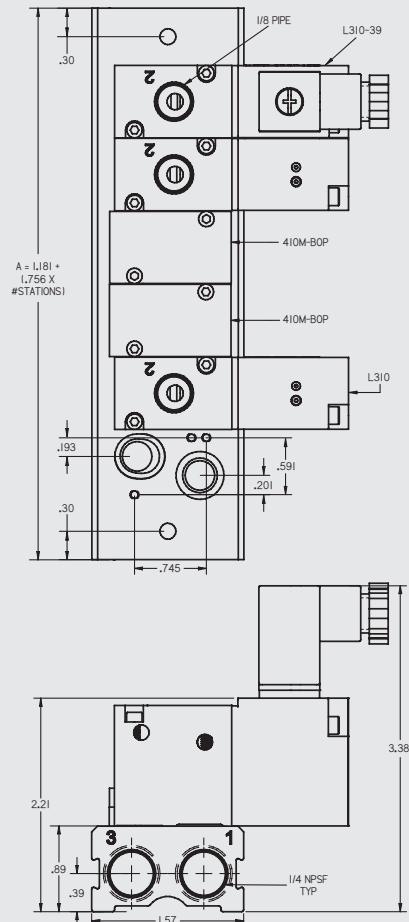
WITH 8-288A BRACKET



CODE 39 WITH HS2



L310 MOUNTED ON 410M



Accessories, Manifolds

ACCESSORIES – VALVES

MODEL		DESCRIPTION	NOTES
	8-288A	Mtg. Bracket	Accepts one L310 model valve.
	130-31	1/8 PIPE Plug	Plug 3 port for 2-way function.
	HS2	DIN	Receptacle for L310-39 models.
	HS2LED-(voltage)	DIN w/LED light	

MANIFOLDS

MODEL			DESCRIPTION	NOTES
	410M	4	4-stn	1/4 Pipe, Supply and Exhaust ports each end.
		6	6-stn	
		8	8-stn	Also accepts 310 and 410 valve models. <i>Ex. 410M4</i>
		12	12-stn	

ACCESSORIES – MANIFOLDS

MODEL		DESCRIPTION	NOTES
	DRC	DIN Rail Clip	Kit, includes (2) brackets and (2) screws.
	130-15	1/4 Pipe Plug	Plug for manifold Supply and Exhaust ports.
	410M-BOP	Block-Off Plate	Includes plate, (2) gas-kets and (2) screws.
	410M-VMK	Valve Mtg. Kit	Includes (2) brackets and (2) screws (replacement).

How to Order

L310 Latching Solenoid Valve

L310	39	--	12VDC	ORDER EXAMPLE L3103912VDC
MODEL L310	ELECTRICAL ENTRY 39: DIN Connector (Standard: 24" Lead Wires)	ELECTRICAL ENTRY POSITION RC: Rotated, Over Port 1 (Standard: Over Port 2)	VOLTS 12VDC 24VDC	

Certified to the ISO 9001:2015 Standard.

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