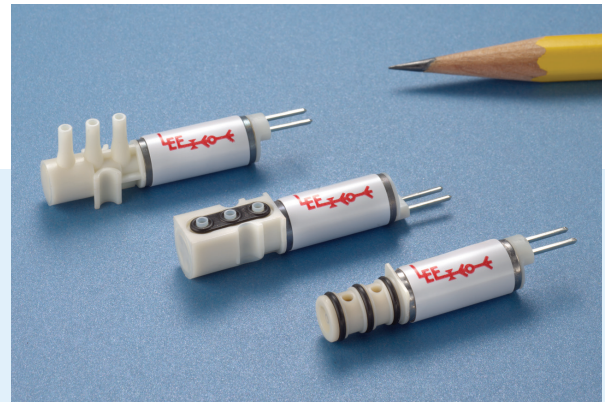


LATCHING 3-PORT HIGH DENSITY INTERFACE (HDI) SOLENOID VALVE

The Lee Company's LHL Series miniature magnetic latching solenoid valve is designed on the 3-way HDI (High Density Interface) platform and optimized for applications that demand ultra-low power, low heat, and small size. This valve is ideal for compact, battery powered pneumatic instruments such as portable oxygen delivery systems, environmental monitors, breath analyzers and patient simulators. The valve requires only momentary (10 msec minimum) pulses of current to switch its state resulting in 5.5 millijoules consumed per switch. The polarity of voltage on the terminal pins controls the switched position.

The Lee Company offers an array of standard manifolds for testing as well as custom designed manifold configurations for production. Performance parameters can be optimized for specific applications.

Contact your Lee Sales Engineer for additional technical assistance and application information.



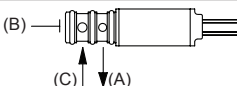
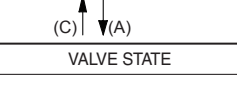
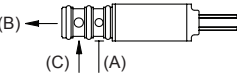
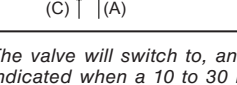
- Magnetically latched
- Ultra low power and low heat: 5.5 mJ/switch
- Reliable bi-stable switching
- Compact size
- Operating pressure range: Vac – 45 psig (0-15 psid)
- Light weight: less than 4.5 grams
- Leakage: less than 50 S μ LPM at 15 psid (air)
- H-bridge circuit recommended (Reference drawing number LFIX1002350A for schematic)
- Wetted materials: housing (PBT), plunger head, armature/core (430 SS), spring (316 SS), seal material, epoxy, O-rings on Plug-In style valves (FKM). See table below for seal and plunger head materials.

STYLE	PART NUMBER ¹	LOHM ² RATE ON AIR @ 70°F (21°C)	WETTED MATERIALS	
			PLUNGER HEAD	SEAL MATERIAL
Plug-In	LHLA__11111H	1100 Lohms (6 SLPM at 10 psi; Cv = .018)	PPS	Silicone
	LHLA__11211H		PPA	FKM
Face Mount	LHLA__21111H	1100 Lohms (6 SLPM at 10 psi; Cv = .018)	PPS	Silicone
	LHLA__21211H		PPA	FKM
Ported	LHLA__31111H	1100 Lohms (6 SLPM at 10 psi; Cv = .018)	PPS	Silicone
	LHLA__31211H		PPA	FKM

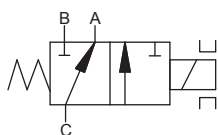
NOTES: (1) Solenoid valves are available in 5 and 12 Vdc standard models. Other voltages available upon request.

LHLA__11111H
 Coil Voltage: 05 = 5 Vdc / 12 = 12 Vdc

(2) The Lohm is a measure of flow resistance. Additional information can be found at www.theleeco.com.

SWITCHING TABLE		
VALVE STATE	TERMINAL	POLARITY
	1	+
	2	-
VALVE STATE	TERMINAL	POLARITY
	1	-
	2	+

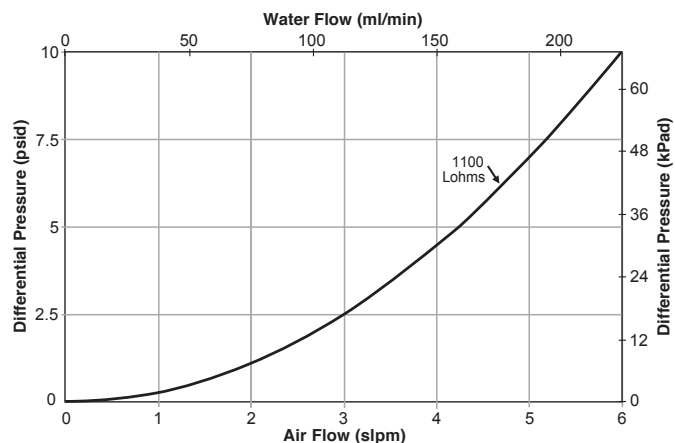
The valve will switch to, and remain in the state indicated when a 10 to 30 ms electrical pulse is applied with the rated voltage and polarity.



LATCHING SOLENOID VALVE SYMBOL

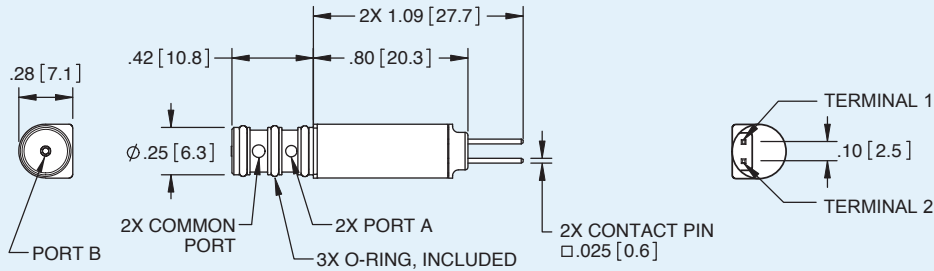
See dimensional drawings on reverse.

Flow Performance Characteristics

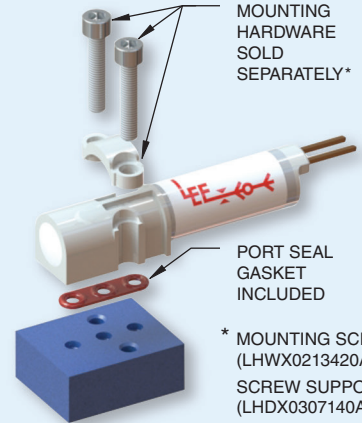
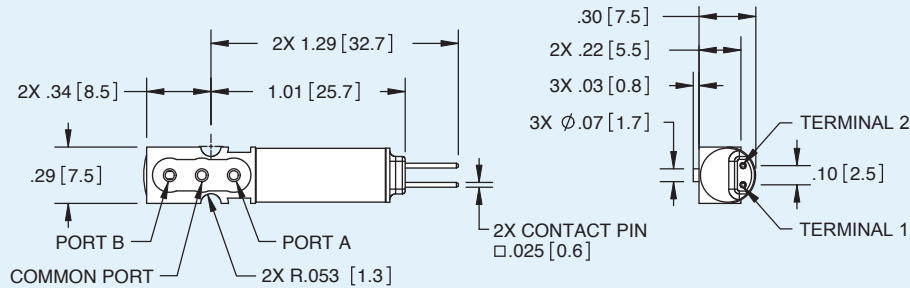


LATCHING 3-PORT HDI SOLENOID VALVE

Plug-In

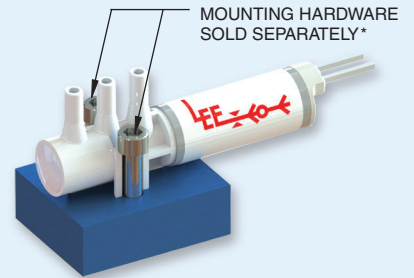
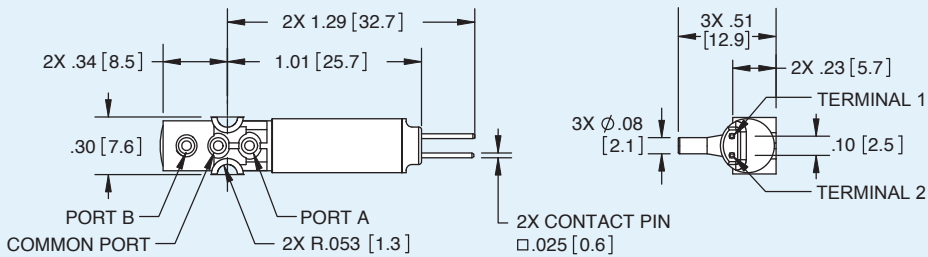


Face Mount



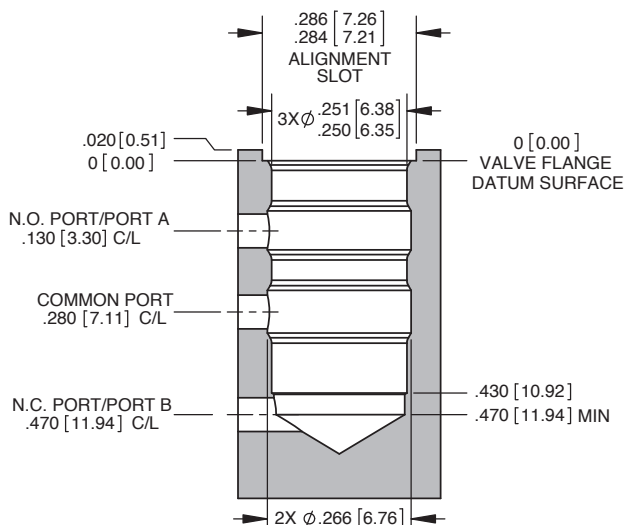
* MOUNTING SCREW (LHWX0213420A)
SCREW SUPPORT (LHDX0307140A)

Soft Tube Ported

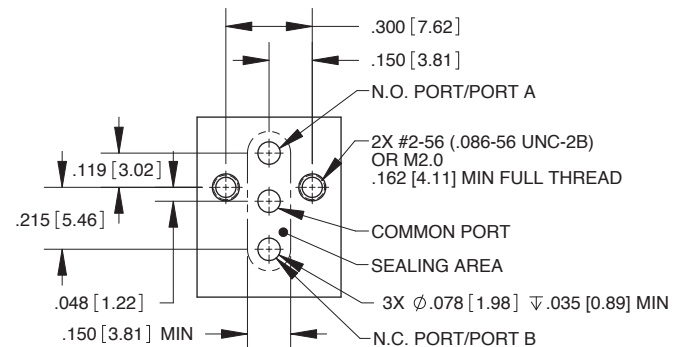


* MOUNTING SCREW (LHWX0503100A)

Plug-In Boss Detail



Face Mount Boss Detail



Reference Drawing Number LFIX1001150A for Face Mount Boss Details.

Reference Drawing Number LCFX0300100B for Plug-In Boss Details.
Valve Boss may be created using Lee Co. cutting tool Part No. TTTA0000180B

NOTE: Boss detail drawings not to scale.
All dimensions are in inches [mm].