

PUMP HEAD SYRINGE T-CONNECTOR

The Lee Company introduces the newest addition to our series of Luer Tee fitting assemblies: the Pump Head Syringe T-Connector. This T-connector contains two of our 2.5 mm press-in check valves, one installed in each branch, configured as inlet and outlet valves for a hand syringe driven system. Each check valve has a cracking pressure of 4 kPa to provide positive shutoff pressure.

During aspiration, the inlet check valve allows fluid to be drawn into the syringe through the inlet port, while the outlet check valve prevents backflow from the system's downstream side. When the syringe is compressed, the inlet check valve closes while the outlet check valve opens; this allows fluid to exit through the outlet port. See graphic on the reverse side.

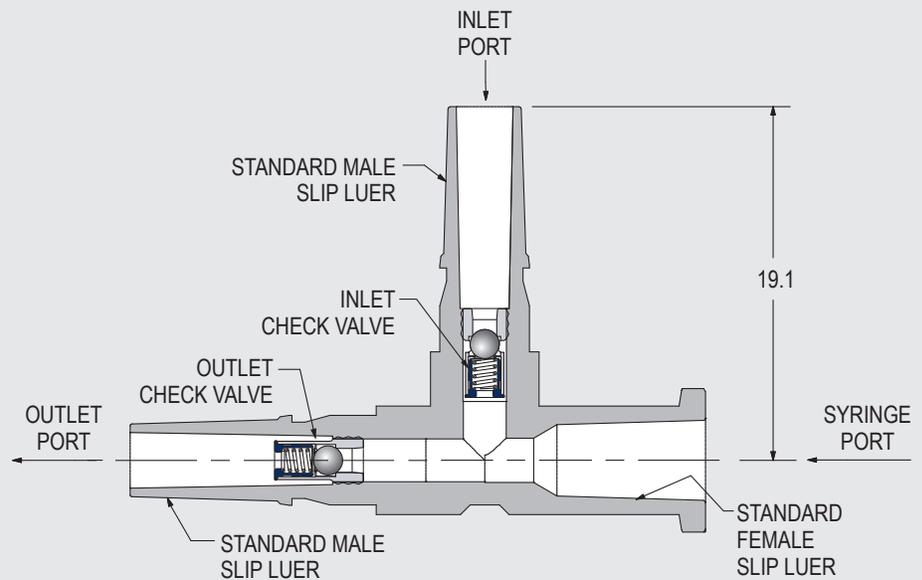
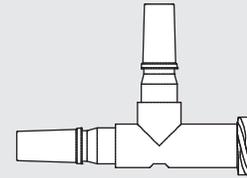
The check valves are constructed entirely from stainless steel and contain a high-quality metal-to-metal seat that provides low leakage and highly repeatable cracking pressures. The fitting is made of medical grade polypropylene.

For more information on other fitting configurations or alternate materials, please contact your local Lee Sales Engineer or visit theleeco.com.

- Ideal for medical applications involving fluid transfer and flushing
- Preassembled, and ready to use as received
- 100% tested to eliminate rework and improve customers' product quality
- Leak-tight for efficient system performance



ACTUAL SIZE



All dimensions are in millimeters.

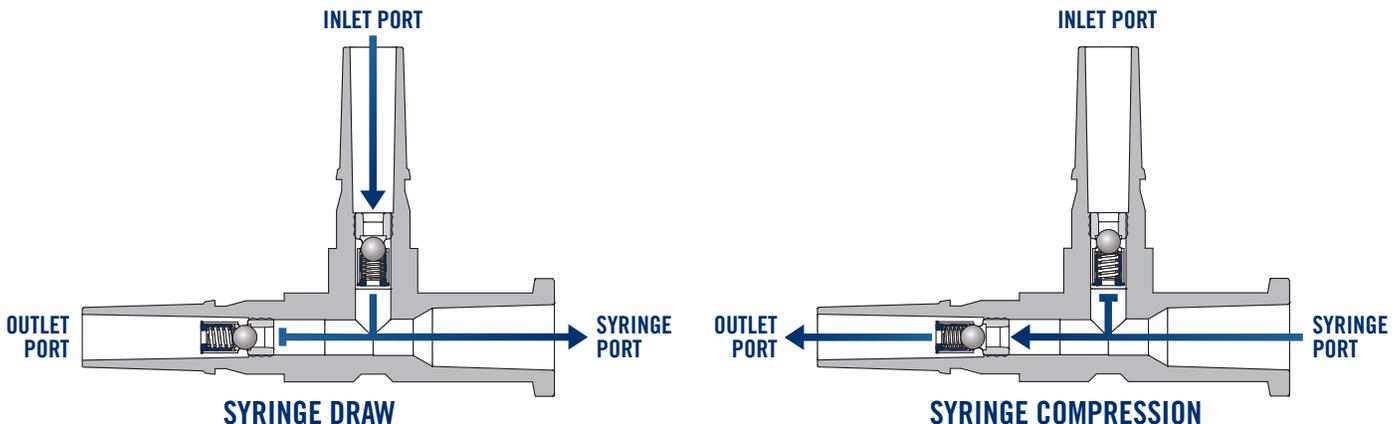
PART NUMBER	INLET AND OUTLET VALVE PERFORMANCE	
CCPF0400404S	Lohm Rate	750 Lohms*
	Cracking Pressure	4 +/- 3 kPa (0.6 +/- 0.4 psi)
	Leakage	10 SCCM (Max.) of Air at 500 kPa
	Materials: Fitting Check Valve	Polypropylene Stainless Steel

* The Lohm is a measure of flow resistance. Additional information can be found on the reverse side and at theleeco.com/Lohm.



PUMP HEAD SYRINGE T-CONNECTOR

FLOW PATH



LEE LOHM LAWS (LIQUIDS)

WORKING WITH LIQUIDS

Engineers will be interested in our simple method of defining and measuring the resistance to fluid flow for hydraulic components. Just as the Ohm is used in electrical engineering, we find that we can use a liquid Ohm or "Lohm" to good advantage on all hydraulic computations.

When using the Lohm, you can forget about coefficients of discharge and dimensional tolerances on drilled holes. These factors are automatically compensated for in the Lohm calculations and confirmed by our testing of each component to establish flow tolerances. The resistance to flow of any fluid component can be expressed in Lohms.

The Lohm has been selected so that a 1 Lohm restriction will permit a flow of 100 gallons per minute of water with a pressure drop of 25 psi at a temperature of 80°F.

Due to the differences in fluid properties between gases and liquids, the equations for calculating the relationship between flow restriction, pressure differential, and flow rate are different.

LIQUID FLOW FORMULA

The following formulas are presented to extend the use of the Lohm laws to many different liquids, operating over a wide range of pressure conditions.

These formulas introduce compensation factors for liquid density and viscosity. They are applicable to any liquid of known properties, with minimum restrictions on pressure levels or temperature.

The units constant (K) eliminates the need to convert pressure and flow parameters to special units.

$$\text{Volumetric Flow Units } L = \frac{KV}{I} \sqrt{\frac{H}{S}} \quad \text{Gravimetric Flow Units } L = \frac{KV}{w} \sqrt{HS}$$

For more information on Lohms, contact your local Lee Sales Engineer or visit theleeco.com/Lohm.

NOMENCLATURE

- L = Lohms
- S = Specific gravity*
- H = Differential pressure
- V = Viscosity compensation factor**
- I = Liquid flow rate: volumetric
- w = Liquid flow rate: gravimetric
- K = Units constant – liquid (see chart below)
- *S = 1.0 for water at 80°F.
- **V = 1.0 for water at 80°F.

LIQUID FLOW – UNITS CONSTANT "K"

VOLUMETRIC FLOW UNITS			
FLOW UNITS	PRESSURE UNITS		
	psi	bar	kPa
GPM	20	76.2	7.62
l/min	75.7	288	28.8
ml/min	75,700	288,000	28,800
in ³ /min	4620	17,600	1760

GRAVIMETRIC FLOW UNITS			
FLOW UNITS	PRESSURE UNITS		
	psi	bar	kPa
PPH	10,000	38,100	3810
g/min	75,700	288,000	28,800



2 Pettipaug Road, PO Box 424, Westbrook, CT 06498
Tel: 860-399-6281 • theleeco.com

PDS 207 10/23
© 2023 The Lee Company

