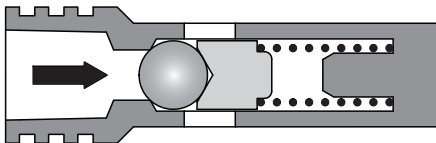


093 LEE CHEK®

The Lee Company's new 093 Lee Chek® is an ultra miniature, precision, side-exit check valve. This 0.093" diameter check valve is based on the same field-proven technology as the 0.187" diameter side exit Lee Chek®. Weighing only 0.14 grams nominal, the 093 Lee Chek offers a 90% reduction in weight over the 187 version and is 50% shorter, resulting in a corresponding reduction in installation boss size and weight.

Available in a forward flow configuration, the new Lee Chek is constructed entirely of stainless steel, and features a hard, metal to metal seat for durability and long life. Each Lee Chek is 100% tested and inspected to ensure reliable, consistent performance.



FREE FLOW FORWARD

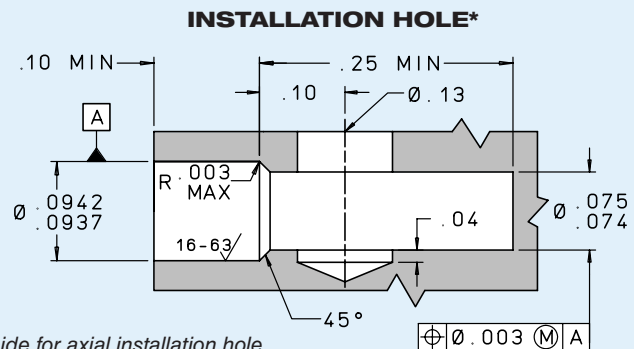
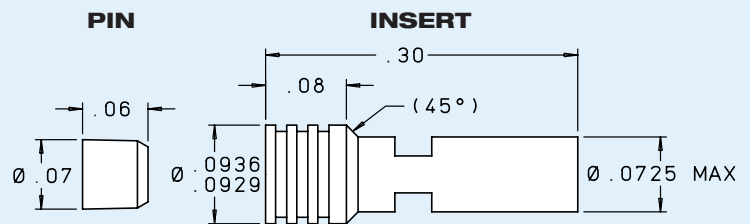
MATERIALS		
PART	MATERIAL	SPECIFICATION
Body	15-5PH CRES	AMS 5659
Pin	13-8 MO CRES	AMS 5629
Spring	17-7PH CRES	AMS 5678
Ball	440C CRES	AMS 5630
Ball Follower	15-5PH CRES	AMS 5659
Spring Seat	15-5PH CRES	AMS 5659

Finish: All CRES Parts Passivated.
 Pins are prewaxed. Do not degrease.
 Do not lubricate.

NOTE: Customer to provide adequate filtration to protect $\varnothing.034$ orifice.

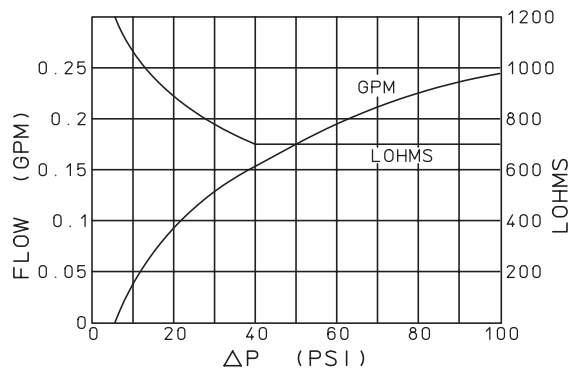
PRODUCT DATA SHEET

- Ultra miniature:
0.093" diameter, 0.30" length
- Weighs only 0.14 grams
- All stainless steel
- 100% tested and inspected
- Designed for system pressures up to 4000 psi



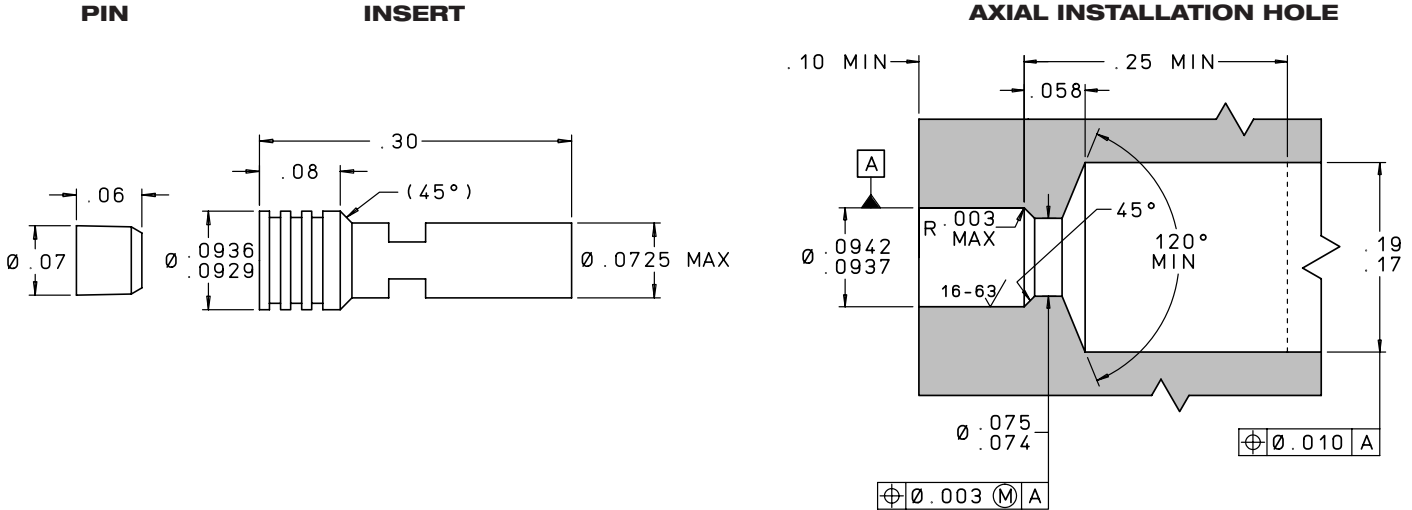
*See reverse side for axial installation hole.

Valve performance on MIL-PRF-83282 at 85°F
 1 drop = 50 μ L



LEE PART NUMBER	CRACKING PRESSURE (psid)	LOHM* RATE (max.)	FLOW DIRECTION	MAXIMUM LEAKAGE IN CHECKED DIRECTION
CKFA0936015A	5 \pm 3	700	Forward	1 drop/min. at 5 psid 1 drop/hr. at 1000-4000 psid

* The Lohm is a measure of flow resistance. Additional information can be found on the reverse side and at www.TheLeeCo.com.
 Maximum rated flow: 1.5 GPM



LEE LOHM LAWS

LOHMS LAWS (liquids)

Every engineer will be interested in our simple system of defining the fluid resistance of Lee hydraulic components.

Just as the OHM is used in the electrical industry, we find that we can use a liquid OHM or "Lohm" to good advantage on all hydraulic computations.

When using the Lohm system, 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 testing each component to establish flow tolerances. The resistance to flow of any fluid control 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.

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.

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

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.

(For other fluids and temperatures, contact your Lee Sales Engineer or visit us at www.TheLeeCo.com)

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	75700	288000	28800
in ³ /min	4620	17600	1760

GRAVIMETRIC FLOW UNITS			
Flow Units	Pressure Units		
	psi	bar	kPa
PPH	10000	38100	3810
gm/min	75700	288000	28800