6 mm ZERO LEAK FORWARD CHECK VALVE

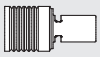
The new 6 mm Zero Leak Forward Check Valve is a miniature, cartridge-style check valve specifically designed for installation into metal fittings and manifolds. This valve uses a soft seat that ensures efficient and leak-free operation in both hydraulic and pneumatic systems.

The valve's robust design and 100% performance testing guarantees long-term operation in a range of applications. It uses our field-proven Controlled Expansion Principal that provides secure retention and eliminates the need for threads, O-rings, or secondary retainers. To install, simply insert the valve into a drilled installation hole and drive the expansion pin flush to seal and lock the valve in place.

Standard offerings are available with either FKM or EPDM seals for a range of fluid and temperature compatibility. If the standard seal materials are not suitable for your application, other seal materials are available upon request. Please contact your local Lee Sales Engineer for more information.

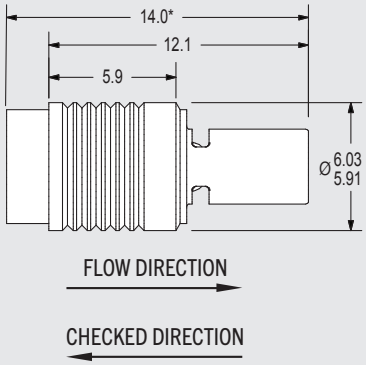
- Soft seat ensures efficient and leak-free operation in hydraulic and pneumatic systems
- 100% performance tested to eliminate rework
- Simple installation method provides a secure retention and eliminates the potential for bypass leakage

ACTUAL SIZE

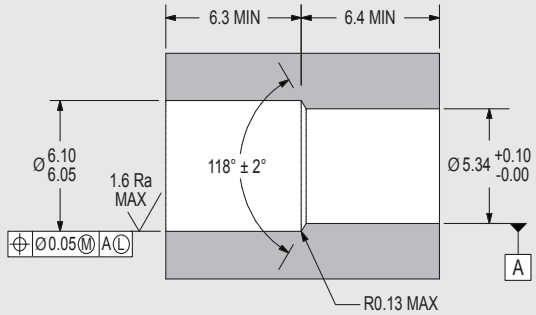


(As Installed)

CHECK VALVE



INSTALLATION HOLE



**Overall length before installation*

All dimensions are in millimeters, except where noted.

SEAL MATERIAL	PART NUMBER	CRACKING PRESSURE
FKM	CZFM6001004S	4 ± 3 kPa (0.6 ± 0.4 psid)
	CZFM6001007S	7 ± 5 kPa (1 ± 0.7 psid)
	CZFM6001014S	14 ± 10 kPa (2 ± 1.4 psid)
	CZFM6001040S	40 ± 30 kPa (6 ± 4.4 psid)
	CZFM6001069S	69 ± 48 kPa (10 ± 7.0 psid)
EPDM	CZFM6002004S	4 ± 3 kPa (0.6 ± 0.4 psid)
	CZFM6002007S	7 ± 5 kPa (1 ± 0.7 psid)
	CZFM6002014S	14 ± 10 kPa (2 ± 1.4 psid)
	CZFM6002040S	40 ± 30 kPa (6 ± 4.4 psid)
	CZFM6002069S	69 ± 48 kPa (10 ± 7.0 psid)

PERFORMANCE	
Lohm Rate	250 Lohms*
Checked Direction Leakage	Zero drops/minute on hydraulic fluid. Verified on air (0.05 SCCM maximum at 150 kPa).
Maximum Working Pressure in Checked Direction	40 MPa (5800 psid)
Maximum Working Pressure in Flow Direction	4 MPa (580 psid)
Materials	Ball, body, cage, pin and spring are stainless steel. Seal material is part number dependent. See table on left.

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

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

PDS 211 3/24

THE LEE COMPANY

6 mm ZERO LEAK FORWARD CHECK VALVE

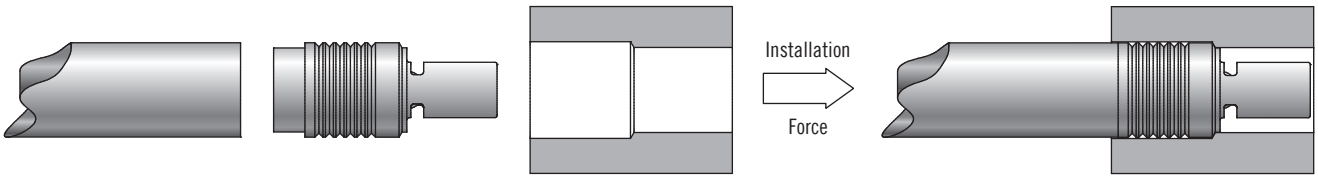
INSTALLATION

After placing the valve into a drilled installation hole, use the installation tool to drive the expander pin to within 0.25 mm above flush of the check valve body. The installation force and tool travel should be monitored for proper installation.

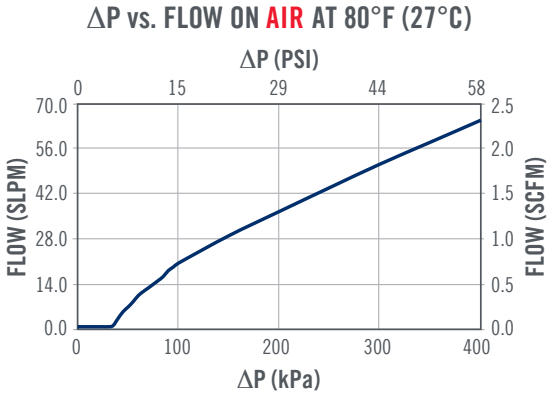
The required installation force is a function of boss material, installation hole dimensions, and boss geometry. A boss constructed with thick or robust materials necessitates a greater installation force compared to one crafted from softer materials or possessing thinner walls. It is important to establish the correct force to achieve the necessary pin flushness with your unique housing material, geometry, and installation press.

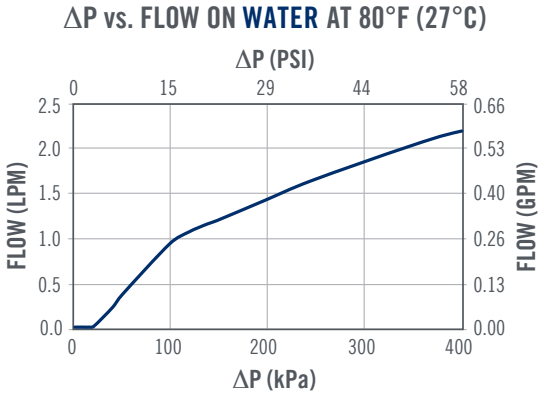
BOSS MATERIAL	HARDNESS	TYPICAL INSTALLATION FORCE
6061 Aluminum	40 HRA	5800 N (1300 lbf)
303 Stainless Steel	23 HRC	7200 N (1620 lbf)
4140 Steel	43 HRC	9000 N (2000 lbf)
A2 Steel	57 HRC	9200 N (2050 lbf)

Please contact your local Lee Sales Engineer for installation support or review installation procedure “IP CZFM 6.0” for more information.



FLOW PERFORMANCE





TYPICAL FLOW CURVE FOR 40 kPa VALVE

LEE LOHM LAWS

WORKING WITH LIQUIDS & GASES

Engineers will be interested in our simple method of defining and measuring the resistance to fluid flow for hydraulic and pneumatic 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 and pneumatic 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.

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.

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