PLUG VALVES

PLV SERIES

HAM-LET® Group
O-RINGS
Different materials are available for special applications.

<table>
<thead>
<tr>
<th>O-ring Material</th>
<th>Temperature Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>PTFE coated Buna N</td>
<td>-10 to 250 (-23 to 121)</td>
</tr>
<tr>
<td>PTFE coated EPDM</td>
<td>-50 to 300 (-45 to 148)</td>
</tr>
<tr>
<td>PTFE coated Fluorocarbon FKM</td>
<td>-10 to 400 (-23 to 204)</td>
</tr>
<tr>
<td>PTFE coated Polychloroprene (CR)</td>
<td>-40 to 250 (-40 to 121)</td>
</tr>
</tbody>
</table>

**MATERIAL OF CONSTRUCTION**

<table>
<thead>
<tr>
<th>No.</th>
<th>Part</th>
<th>Qty</th>
<th>Material</th>
<th>Stainless Steel</th>
<th>Brass</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Handle</td>
<td>1</td>
<td>Polythermide</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Pin</td>
<td>1</td>
<td>St.St.316</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>*Plug</td>
<td>1</td>
<td>PTFE coated</td>
<td>St.St.316 A479</td>
<td>PTFE coated Brass ASTM B-16</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>*O-rings</td>
<td>2</td>
<td>PTFE coated fluorocarbon FKM</td>
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<td></td>
</tr>
<tr>
<td>5</td>
<td>* O-ring</td>
<td>1</td>
<td>PTFE coated fluorocarbon FKM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Pin</td>
<td>1</td>
<td>St.St.316</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>*Body</td>
<td>1</td>
<td>St.St.316 A479</td>
<td>Brass ASTM B-16</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Retaining Ring</td>
<td>1</td>
<td>PH 15-7 Mo St.St.</td>
<td></td>
<td>Silicone based</td>
</tr>
</tbody>
</table>

* Wetted parts

**PRESSURE TEMPERATURE RATING**
Based on PTFE coated Fluorocarbon FKM O-rings.

**PLV FEATURES**
- Tight shut-off with throttling capability
- One piece body design
- Replaceable plug assembly
- Stainless steel and Brass construction
- MAWP* 3000 psi (206 bar)
- MAWT* 400°F (204°C)
- Variable end connection types and sizes from 1/8” to 1/2” (6mm to 12mm)
- Colored Nylon handles
- Low-operating torque
- Easy to maintain and clean
- Choice of O-rings for chemical compatibility
- Passivated Body

**GENERAL**
The PLV series offers a manually operated plug valve that features tight shut-off with high-pressure throttling capability, long life cycle service and low-operating torque.

The plug valve is rated to 3000 psig making it an optimal choice for a variety of instrumentation systems such as sampling, analytical purging and cleaning applications.
**TESTING**
The Plug valve design has been tested for burst and proof. Standard testing for each Plug valve includes testing with nitrogen at 1000 & 80 psig. Each valve is tested for leakage through the shell and Plug seats. The maximum allowable leakage across the ball seats is 0.1 std cc/min.

**CLEANING & PACKAGING**
Every Plug valve is cleaned in accordance with standard cleaning and packaging (procedure 8184). Oxygen Clean & Lubricant-Free cleaning and packaging, in accordance with special cleaning and packaging (procedure 8185), is available as an option. Lubricant-free cleaned valves have significantly higher actuation torque.

**Replaceable Handle:**
- Indicates direction of flow
- Nylon handle available in a variety of colors
- Designed for easy operation and low torque

**Body:**
- Bar stock construction
- Treated with passivation
- Available in 2 sizes to optimize flow rate (4/1 and 8/3)

**End Connection Types:**
- Let-Lok, NPT, BSPT, BSPP

**End Connection Sizes:**
- From 1/8 to 1/2 (6mm to 12mm)

**PTFE Coated Plug:**
- Provides flow throttling option
- Easily replaceable
- Reduces operating torque

**PTFE coated O-rings:**
- Prolongs product life
- Available in PTFE coated FKM, EPDM, Buna N and polychloroprene

**OPERATION**
- Valve is capable of bi-directional flow (please note maximum differential pressure is limited to 150 psig when flow is reversed)
- Reverse-flow throttling may damage O-ring.

- Open
- Forward-Flow Throttling
- Closed
### PLV STANDARD CONFIGURATION DIMENSIONS

<table>
<thead>
<tr>
<th>Series</th>
<th>End Connection Type</th>
<th>Size</th>
<th>CV</th>
<th>Orifice Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>mm</td>
<td>inch</td>
<td>mm</td>
</tr>
<tr>
<td>PLV4</td>
<td>Let-Lok Imperial</td>
<td>1/8</td>
<td>0.1</td>
<td>2.3</td>
</tr>
<tr>
<td>PLV4</td>
<td></td>
<td>1/4</td>
<td>1.6</td>
<td>4.4</td>
</tr>
<tr>
<td>PLV4</td>
<td></td>
<td>3/8</td>
<td>1.1</td>
<td>4.4</td>
</tr>
<tr>
<td>PLV6</td>
<td></td>
<td>1/2</td>
<td>6.4</td>
<td>7.2</td>
</tr>
<tr>
<td>PLV6</td>
<td>Let-Lok Metric</td>
<td>6mm</td>
<td>1.6</td>
<td>4.4</td>
</tr>
<tr>
<td>PLV6</td>
<td></td>
<td>8mm</td>
<td>6.4</td>
<td>7.2</td>
</tr>
<tr>
<td>PLV6</td>
<td></td>
<td>10mm</td>
<td>6.4</td>
<td>7.2</td>
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<td>12mm</td>
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<td>7.2</td>
</tr>
<tr>
<td>PLV4</td>
<td>Female NPT/BSPT</td>
<td>1/8</td>
<td>1.2</td>
<td>4.4</td>
</tr>
<tr>
<td>PLV6</td>
<td></td>
<td>1/4</td>
<td>0.9</td>
<td>4.4</td>
</tr>
<tr>
<td>PLV6</td>
<td></td>
<td>1/2</td>
<td>4.3</td>
<td>7.2</td>
</tr>
<tr>
<td>PLV4</td>
<td>Male NPT/BSPT</td>
<td>1/8</td>
<td>1</td>
<td>4.4</td>
</tr>
<tr>
<td>PLV4</td>
<td></td>
<td>1/4</td>
<td>1</td>
<td>4.4</td>
</tr>
<tr>
<td>PLV6</td>
<td></td>
<td>1/2</td>
<td>2.4</td>
<td>7.2</td>
</tr>
<tr>
<td>PLV4</td>
<td>Male NPT to Let-Lok</td>
<td>1/4</td>
<td>0.9</td>
<td>4.4</td>
</tr>
<tr>
<td>PLV4</td>
<td>Male to Female NPT</td>
<td>1/4</td>
<td>1</td>
<td>4.4</td>
</tr>
</tbody>
</table>

Dimensions are for reference only and are subject to change.

### DOWNSTREAM VENT

- In close position the plug valve allows to release the pressure to the atmosphere
- The maximum working pressure for downstream vents is 150 psig.
### PLV SERIES ORDERING INFORMATION

**Valves Series**
- PLV4 - 1/4 Body
- PLV6 - 3/8 Body

**Valve Type**
- 00 - LET-LOK® End Connection
- 10 - Female End Connection
- 80 - Male End Connection
- 85 - Male to Female End Connection
- 95 - Male to LET-LOK® End Connection

**Body and Ends Material**
- SS - St.St. 316
- B - Brass

**End Connection**
- L - LET-LOK® End
- N - Threaded NPT
- G - ISO parallel (BSPP)
- R - ISO Tapered (BSPT)
- NL - NPT to LET-LOK®
- LN - LET-LOK® to NPT

**End Connection Size**
- 1/8 6 MM
- 1/4 8 MM
- 3/8 10 MM
- 1/2 12 MM

**O-ring Material**
- PF - PTFE coated Fluorocarbon FKM
- PB - PTFE coated Buna N
- PE - PTFE coated EPDM
- PN - PTFE coated Polychloroprene (CR)

**Treatment**
- BLANK - Standard Cleaning & Passivation
- OC - Oxygen Clean
- LF - Lubricant Free
- SF - Silicone Free
- *For FDA option, please consult HAM-LET

**Handle**
- S - Black Nylon Handle
- R - Red Nylon Handle
- B - Blue Nylon Handle
- G - Green Nylon Handle

**Approval**
- DV* - Downstream Vent
- *MAWP 150 Psi

*For other materials, please consult HAM-LET
**ORDERING INFORMATION FOR SPARE KIT**

**HANDLE KIT**
Handle Kit includes handle and pin. To order a spare-parts kit, use the following format:

- **Body Designator pre series**
  - PLV4 - 1/4 Body
  - PLV6 - 3/8 Body

- **Kit Type**
  - HK - Handle Kit
  - SK - Seal Kit
  - PK - Plug Kit

- **Handle**
  - S Black Nylon Handle
  - R Red Nylon Handle
  - B Blue Nylon Handle
  - G Green Nylon Handle

**SEAL KIT**
Sale Kit includes 3 O-rings. To order a spare -parts kit, use the following format:

- **Body Designator pre series**
  - PLV4 - 1/4 Body
  - PLV6 - 3/8 Body

- **Kit Type series**
  - SK - Seal Kit

- **O-ring material**
  - PF- PTFE coated Fluorocarbon FKM
  - FB- PTFE coated Buna N
  - PE- PTFE coated EPDM
  - PN- PTFE coated Polychloroprene (CR)

**PLUG KIT**
Plug Kit includes handle, plug and 3 O-rings. To order a spare -parts kit, use the following format:

- **Body Designator pre series**
  - PLV4 - 1/4 Body
  - PLV6 - 3/8 Body

- **Body and Ends material**
  - SS St.St. 316
  - B Brass

- **Kit Type**
  - PK - Plug Kit

- **O-ring material**
  - PF- PTFE coated Fluorocarbon FKM
  - FB- PTFE coated Buna N
  - PE- PTFE coated EPDM
  - PN- PTFE coated Polychloroprene (CR)

- **Handle**
  - S Black Nylon Handle
  - R Red Nylon Handle
  - B Blue Nylon Handle
  - G Green Nylon Handle

**Warning!**
The system designer and user have the sole responsibility for selecting products suitable for their special application requirements, ensuring their safe and trouble-free installation, operation, and maintenance. Application details, material compatibility and product ratings should all be considered for each selected product. Improper selection, installation or use of products can cause property damage or personal injury.