



**L SERIES**

# L SERIES PRESSURE REDUCING & DIFFERENTIAL PRESSURE REGULATOR

**SIZES 1/2" - 4"**

**PRESSURES to 600 PSIG at 750°F**

- **Steam, Air or Gas Service**
- **99% Accuracy of Regulation**
- **10:1 Rangeability**
- **Packless Construction**
- **One Valve Adjusts to All Ranges**
- **Pressure Reduction of 15 psi minimum**

## APPLICATION DATA

- HVAC Systems
- Process Control Systems for Food, Moulding, Textile, Pulp, etc.
- Packaged OEM Systems for Heat Exchangers, Metal Cleaning, Vaporizers, etc.

## VALVE RATINGS

| Valve Ends<br>ASME/ANSI  | Pressure<br>PSIG (bar) | Temperature<br>°F (°C) |
|--------------------------|------------------------|------------------------|
| <b>CAST IRON</b>         |                        |                        |
| B16.1 Class 250 NPT      | 250 (17.2)             | @ 450 (232)            |
| B16.1 Class 125 Flanged  | 125 (8.6)              | @ 450 (232)            |
| B16.1 Class 250 Flanged  | 250 (17.2)             | @ 450 (232)            |
| <b>BRONZE</b>            |                        |                        |
| B16.24 Class 300 NPT     | 300 (21.0)             | @ 500 (260)            |
| B16.24 Class 150 Flanged | 150 (10.3)             | @ 500 (260)            |
| B16.24 Class 300 Flanged | 300 (21.0)             | @ 500 (260)            |
| <b>CAST STEEL</b>        |                        |                        |
| B16.34 Class 600 NPT     | 600 (41.4)             | @ 750 (400)            |
| B16.34 Class 150 Flanged | 150 (10.3)             | @ 750 (400)            |
| B16.34 Class 300 Flanged | 300 (21.0)             | @ 750 (400)            |
| B16.34 Class 600 Flanged | 600 (41.4)             | @ 750 (400)            |

## MODELS<sup>1</sup>

- **L\_KY**-5-385 psi range<sup>2</sup>, Cast Iron, Steam Svc., Teflon® Piston Seal
- **LA\_K**-5-385 psi range<sup>2</sup>, Cast Iron, Air or Gas Svc., Neoprene O Ring
- **L\_Y**-10-285 psi range<sup>2</sup>, Bronze, Steam Svc., Teflon® Piston Seal
- **L\_-3**-10-285 psi range<sup>2</sup>, Bronze, Steam Svc., Cast Iron Piston Ring
- **LA\_-5**-5-385 psi range<sup>3</sup>, Bronze, Air or Gas Svc., Neoprene O Ring
- **L\_S**-25-400 psi range<sup>4</sup>, Cast Steel, Steam Svc, Cast Iron Piston Ring
- **L\_YS**-25-400 psi range<sup>4</sup>, Cast Steel, Steam Svc, Teflon® Piston Seal
- **LAAS**-5-385 psi range<sup>3</sup>, Cast Steel, Air or Gas Svc., Buna-N O-Ring\*

## OPTIONS<sup>1</sup>

- **E**-External Sensing Port for downstream pressures 25% below inlet pressures (Available on all except LAAS)
- **L**-Trim for alternate range - LKY, LY, L are 2-35 psi; LS is 10-50 psi
- **X**-Differential Pressure 5-40 psi range (Available on LKY, LY, LS)
- **T**-Remotely Adjusted 5-175 psi; 7:1 ratio reduced pressure to loading pressure

## RATED FLOW COEFFICIENTS (Cv)

|       | REGULATOR SIZE |     |     |       |       |    |       |    |       |    |
|-------|----------------|-----|-----|-------|-------|----|-------|----|-------|----|
|       | 1/2            | 3/4 | 1   | 1 1/4 | 1 1/2 | 2  | 2 1/2 | 3  | 3 1/2 | 4  |
| STEAM | 1.8            | 3.4 | 5.6 | 10    | 13.7  | 23 | 33    | 51 | 69    | 89 |

For Sizing Capacity Tables see Pages 38 & 43

1. Insert letter code for options in model number as required.

2. For inlet pressures over 200 psi, minimum pressure is 5% of inlet pressure.

3. For inlet pressures over 100 psi, minimum pressure is 5% of inlet pressure.

4. For inlet pressures over 300 psi, minimum pressure is 8% of inlet pressure.

# L SERIES PRESSURE REDUCING & DIFFERENTIAL PRESSURE REGULATOR SPECIFICATIONS

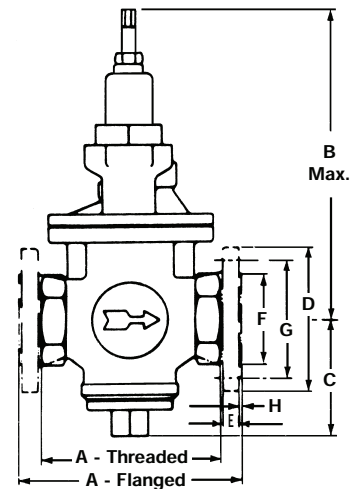
CAST IRON AND BRONZE REGULATORS shall be of the self-contained, internal pilot, piston operated type. Internal pilot valve and pilot valve seat shall be interchangeable in all sizes and contained wholly within the valve and entirely self draining. The main valve shall be made of stainless steel hardened to at least 500 Brinell. No stuffing boxes or bellows will be permitted. All valve seats shall be renewable. Main valve seat ring to be stainless with STELLITE® seating surface. Pistons in steam pressure regulating service shall be of bronze with a TEFLON® seal. All regulators for over 500°F (260°C) service shall have cylinder liners of stainless steel hardened to 500 Brinell, and bronze pistons with cast iron rings. In air service, piston and liner shall be of bronze with a rubber "O" ring seal. Internal pilot valve to be stainless steel hardened to at least 500 Brinell, with ground finish. Adjusting spring shall cover 2-35 psi (0.1-2.5 bar) or 10-285 psi (0.7-20 bar) range.

STEEL REGULATORS shall be of the self-contained, internal pilot, piston operated type. Internal pilot valve and pilot valve seat shall be interchangeable in all sizes and for all pressure conditions, contained wholly within the valve and entirely self-draining. The main valve shall be made of stainless steel hardened to at least 500 Brinell. No stuffing boxes, rubber diaphragms or bellows will be permitted. Main valve seat to be STELLITE® welded integral with body. Main valve, internal pilot valve and renewable piston cylinder shall be made of stainless steel hardened to at least 500 Brinell. The pilot valve and piston cylinder shall have ground finish. Wide range adjusting spring (10-50 psi) (0.7-3.5 bar) or (25-400 psi) (1.7-28 bar) shall be contained within a steel spring case bolted to valve top cap.

## MATERIALS OF CONSTRUCTION

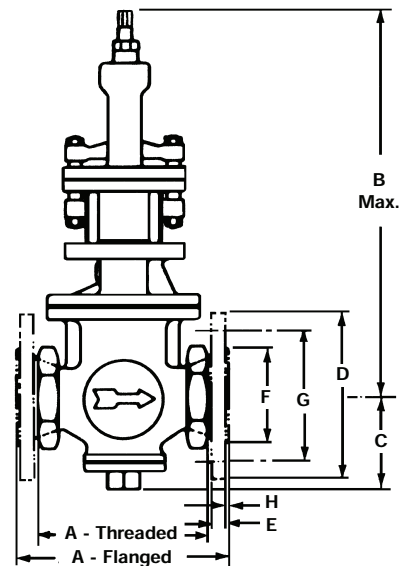
|                            |                     |
|----------------------------|---------------------|
| Body, Cast Iron .....      | ASTM A126 Cl. B     |
| Body, Cast Bronze .....    | ASTM B61 UNS C92200 |
| Body, Cast Steel .....     | ASTM A216 WCB       |
| Seat Ring, std. ....       | SS w/Stellite®      |
| opt. ....                  | Bronze*             |
| Main Valve Trim, std. .... | Hardened SS         |
| opt. ....                  | SS w/Neoprene Disc* |

\*Installed in units with "A" in model code.



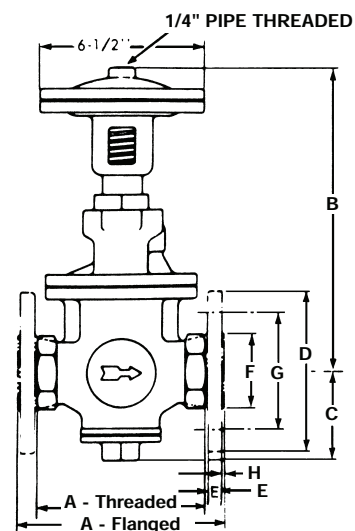
**STANDARD REGULATOR - L SERIES AND UL SERIES**

See Dimensions Chart on page 14



**DIFFERENTIAL REGULATOR - LX SERIES**

See Dimensions Chart on page 14



**T TOPWORKS**

See Dimensions Chart on page 14