

Spring Loaded Pressure Maintaining Valve

L50 is a 1/4" unbalanced, spring loaded, pressure maintaining valve, used for quick and accurate control of inlet pressures. Ideal for low, and medium pressure applications, It is manually adjustable for maintaining a set pressure of upstream media, its heavy duty construction allows it to be installed in the most arduous of environments.

For an operational overview, please refer to pages 18 and 19.



Standard Features

Valve Size:

- 1/4" UNBALANCED

Materials of construction:

- BODY - STAINLESS STEEL - BS EN 10088 1.4541
- SPRING HOUSING - STAINLESS STEEL - BS 3146 ANC.4 BFC. 316
- SEAT - DELRIN
- ELASTOMERS - HIGH NITRILE

Connections:

- LINE 3/8" BSPP (INLET & OUTLET)

Maximum Inlet Pressure:

- 400 BAR (5800 PSI)

Set Pressure Range:

- 0 - 400 BAR (0 - 5800 PSI)

Media:

- LIQUID AND GASES

Weight:

- 3.4 Kg (7.5 lb) ST STL; 2 Kg (4.4 lb) ALU

Additional Features

- BASE MOUNTING
- ADJUSTABLE
- LOCKING DEVICE

Options

Materials of construction:

- ELASTOMERS - FLUOROCARBON OR EPDM
- BODY - ALUMINIUM - L168 T6511

Body connections:

- NPT LINE CONNECTIONS

Applications

- Compressors
- Dryer systems
- Filter systems
- Brewery plants
- Gas & liquid sampling
- Pump pressure control
- Research laboratories
- Aerospace ground support

Ordering Information

| TYPE | VALVE SEAT SIZE | MATERIAL OPTION | CONNECTIONS | OUTLET PRESSURE | ELASTOMER | OPTIONS |
|------|-----------------|-------------------------------|---------------------------------|---|---|--|
| L50 | C (1/4") | B9 (ST/STL) T0 (ALUMINIUM) | E2 (3/8" BSPP) A2 (3/8" NPT) | P (0 - 10 BAR) W (0 - 52 BAR) Y (0 - 103 BAR) 3 (0 - 250 BAR) 8 (0 - 400 BAR) | N (NITRILE) V (FLUOROCARBON) E (EPDM) | 01 (LOCKING DEVICE) 02 (PANEL MOUNT) 03 (LOCKING AND PANEL MOUNT) |

ORDERING INFORMATION EXAMPLE:

L50CB9E2PV

Notes

Technical Specifications

Pressure

| | PRESSURE |
|------------------------|----------|
| TEST (PROOF) PRESSURE | 600 BAR |
| MAXIMUM INLET PRESSURE | 400 BAR |

Set Pressure Ranges

| PRESSURE |
|----------------------------|
| 0 - 10 BAR (0 - 145 PSI) |
| 0 - 52 BAR (0 - 755 PSI) |
| 0 - 103 BAR (0 - 1495 PSI) |
| 0 - 250 BAR (0 - 3625 PSI) |
| 0 - 400 BAR (0 - 5800 PSI) |

Leakage

| | |
|------------|--|
| STANDARD | BUBBLE TIGHT (TYPICALLY 10^{-6} AT $CM^3 SEC^{-1}$) |
| ON REQUEST | HELIUM LEAK TESTED TO 10^{-8} AT $CM^3 SEC^{-1}$ |

Temperature Range

| | TEMPERATURE | BODY MATERIAL |
|----------|-----------------|---------------|
| STANDARD | -10°C TO +100°C | ALL |
| OPTION | -40°C TO +150°C | CONSULT IVP |

Valve Size and Flow Area

| | |
|------------------|--|
| NOMINAL SIZE | 6.35mm (1/4") |
| ORIFICE AREA A1 | 32mm ² (0.049 in ²) |
| PORT AREA A2 | 71mm ² (0.11in ²) |
| FLOW COEFFICIENT | Kv = 0.95 (Cv = 1.1) |

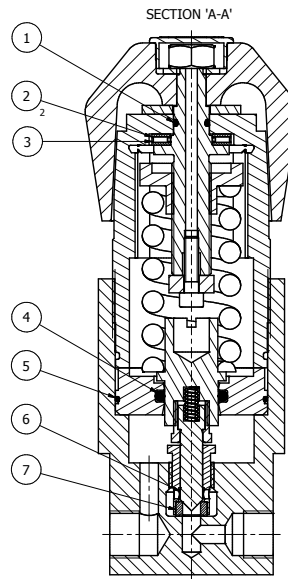
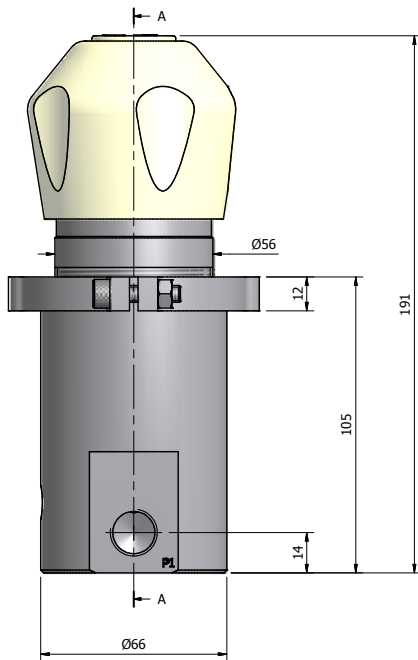
Spares Code

| SPARES | OUTLET PRESSURE | ELASTOMER |
|--------|--|--|
| L50S | P (0 - 10 BAR) W (0 - 52 BAR) Y (0 - 103 BAR) 3 (0 - 250 BAR) 8 (0 - 400 BAR) | N (NITRILE) V (FLUOROCARBON) E (EPDM) |

Spares BOM

| ITEM | DESCRIPTION | MATERIAL | QTY |
|------|----------------|-----------|-----|
| 1 | 'O' RING | Rubber | 1 |
| 2 | WASHER | Steel | 1 |
| 3 | NEEDLE BEARING | Steel | 1 |
| 4 | 'O' RING | Rubber | 1 |
| 5 | 'O' RING | Rubber | 1 |
| 6 | VALVE | BS 3S 145 | 1 |
| 7 | SEAT | Delrin | 1 |

Technical Specifications



NOTE: THE PRESSURE MAINTAINING VALVE SHOULD BE MOUNTED IN THE VERTICAL POSITION TO MAINTAIN PERFORMANCE.

