

- > **Port size: 3/8" ISO G/NPT**
- > **Excellent control of upstream pressure**
- > **Provides repeatable and accurate over pressure protection where relief valve hysteresis and endurance are insufficient**



### Technical features

L50 is a 1/4" 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. It's heavy duty construction allows it to be installed in the most arduous of environments.

#### Applications:

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

#### Medium:

Liquid and gases

#### Maximum inlet pressure:

400 barg (5800 psig)

#### Control pressure range:

Aluminium body:

0 ... 250 barg (0 ... 3625 psig)

Stainless steel body:

0 ... 400 barg (0 ... 5800 psig)

#### Leakage:

Bubble tight (standard, typically  $10^{-6}$  atm.cm<sup>3</sup>/sec<sup>-1</sup>)

Helium leak tested to

$10^{-8}$  atm.cm<sup>3</sup>/sec<sup>-1</sup> (on request)

#### Ambient/Media temperature:

NBR:

-10 ... +100°C (+14 ... +202°F)

FPM:

-20 ... +150°C (-4 ... +302°F)

EPDM:

-30 ... +115°C (-22 ... +239°F)

Aluminium:

-40 ... +150°C (-40 ... +302°F)

Stainless Steel:

-40 ... +150°C (-40 ... +302°F)

#### Materials:

Body: aluminium L168 T6511 or stainless steel BS EN 10272 1.4401

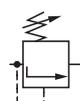
Spring housing: stainless steel BS3146/4 316

Seat: Acetal

Handwheel: plastic up to 103 barg or aluminium up to 400 barg

Elastomers: NBR, FPM, EPDM

### Technical data

Symbol	Port size	Valve seat size (mm)	Valve seat size (inch)	Seat flow area (mm <sup>2</sup> )	Seat flow area (inch <sup>2</sup> )	Port flow area (mm <sup>2</sup> )	Port flow area (inch <sup>2</sup> )	Flow coefficient (Kv)	Flow coefficient (Cv)	Weight (kg)	Model
	3/8"	6,35	0,25	32	0,049	71	0,11	0,95	1,10	2,0 (Aluminium)	L50
										3,4 (Stainless steel)	

### Option selector

L50C★★★★★★

Material	Substitute	Options	Substitute
Aluminium	T0	Not required	None
Stainless steel	B9	Locking device	01
Port size	Substitute	Panel mount	02
ISO G	E2	Locking & panel mount	03
NPT (Stainless steel only)	A2	Elastomer	Substitute
		NBR	N
		FPM	V
		EPDM	E
		Control pressure range	Substitute
		0 ... 10 barg (0 ... 145 psig)	P
		0 ... 52 barg (0 ... 755 psig)	W
		0 ... 103 barg (0 ... 1495 psig)	Y
		0 ... 275 barg (0 ... 3625 psig)	4
		0 ... 400 barg (0 ... 5800 psig)	6
		Stainless steel only	

**Option selector spare kits**

**L50S★★**

Control pressure range	Substitute
0 ... 10 barg (0 ... 145 psig)	<b>P</b>
0 ... 52 barg (0 ... 755 psig)	<b>W</b>
0 ... 103 barg (0 ... 1495 psig)	<b>Y</b>
0 ... 275 barg (0 ... 3625psig)	<b>4</b>
0 ... 400 barg (0 ... 5800psig) Stainless steel only	<b>6</b>

Elastomer	Substitute
NBR	<b>N</b>
FPM	<b>V</b>
EPDM	<b>E</b>

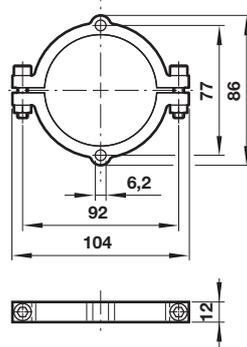
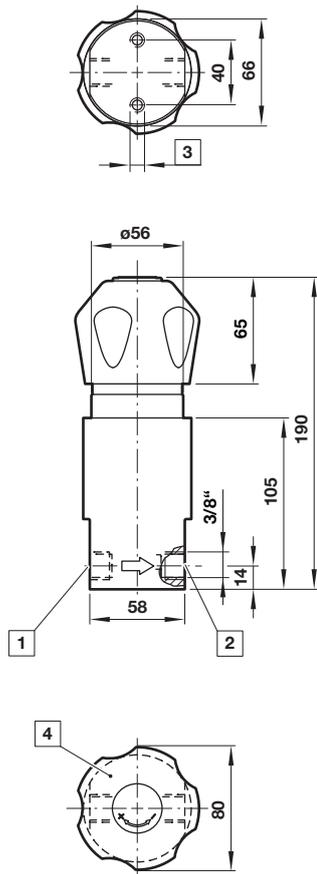
**Spares BOM**

Description	Material	QTY
'O'-Ring	Rubber	1
Washer	Steel	1
Needle bearing	Steel	1
'O'-Ring	Rubber	1
'O'-Ring	Rubber	1
Valve	BS 3S 145 (normalised)	1
Seat	Acetal	1

**Dimension Valve**

**Panel mounting kit**

Dimensions in mm  
Projection/First angle



- 1 Inlet port
- 2 Outlet port
- 3 Mounting threads M6 x 12 deep
- 4 Adjustable knob

**Warning**

Do not use these products where pressures and temperatures can exceed those listed under »**Technical features/data**«. Before using these products with fluids other than those specified, for non-industrial applications, life-support systems or other applications not within published specifications, consult IMI Precision Engineering, Thompson Valves Ltd.

Through misuse, age, or malfunction, components used in fluid power systems can fail in various modes. The system designer is warned to consider the failure modes of all component parts used in fluid power systems and to provide adequate safeguards to prevent personal injury or damage to equipment in the event of such failure. System designers must provide a warning to end users in the system instructional manual if protection against a failure mode cannot be adequately provided. System designers and end users are cautioned to review specific warnings found in instruction sheets packed and shipped with these products.