

BP-LF691 Datasheet

LOW-FLOW BACK PRESSURE REGULATOR



● Gas ● Liquid | ● Diaphragm ● Piston | Max Rating: 1,034 bar (15,000 psi) | Control Range: 900 bar (13,050 psi) | Cv 0.1



INTRODUCING THE BP-LF691...

The BP-LF691 is a piston-sensed low-flow back pressure regulator for gas or liquid applications. As standard, the gas version uses a PEEK™ seat, whilst the liquid version features 316SS seating. Alternatively, other seats are available to suit your application including Terasint (for pressures above 690 bar), Titanium, Vespel® and Hastelloy®.

The BP-LF691 accurately controls inlet pressure and vents excess pressure back via the threaded 1/2" NPT/BSPP or 9/16" MP outlet port.

SPECIFICATION

Max. Rating	1,034 bar (15,000 psi)
Control Range	Up to 900 bar (13,050 psi)
Design Proof Pressure	150% max. working pressure
Seat Leakage	In accordance with ANSI/FCI 70-3
Weight	2.9kg (6.4lbs)

STANDARD MATERIALS OF CONSTRUCTION

PART	MATERIALS
Body and Bonnet	ASTM A479 316/316L Stainless Steel (UNS S31600/S31603)
	ASTM 17-4 Stainless Steel (UNS S17400)
Main Valve Pin	Inconel® 718 (UNS N07718)
Seat	PEEK™ (450G)
	ASTM A479 316/316L Stainless Steel
Valve Spring	Phynox® (R30003)
Piston	ASTM A479 316/316L Stainless Steel (UNS S31600/S31603)
Handwheel	Nylon
O-Rings	NBR N70 (Nitrile Buna N)
	FKM/FPM (Viton)
Loading Spring	ASTM A240 301 Stainless Steel (UNS S30100)

Note: Pressure regulator rating may be limited by connection type, Cv and/or seat material. Contact the office for specific pressure or temperature requirements.

FEATURES AND BENEFITS

1 PISTON SENSING ELEMENT

Perfect for use in challenging conditions.

2 RANGE OF SEAT MATERIALS

Covers a wide range of applications.

3 OPTIONAL AIR ACTUATOR

Fine remote adjustment.

4 LOW CV (0.02)

Accurate control of process media.

Product availability and specifications contained herein are subject to change without notice. Consult local distributor or factory for potential revisions and/or service related issues. Pressure Tech Ltd support with product selection recommendations only - it is the users responsibility to ensure the product is suitable for their specific application requirements.



PRESSURE TECH LTD

Unit 24, Graphite Way, Hadfield, Glossop, Derbyshire, UK, SK13 1QH

+44 (0)1457 899 307 | sales@pressure-tech.com | www.pressure-tech.com

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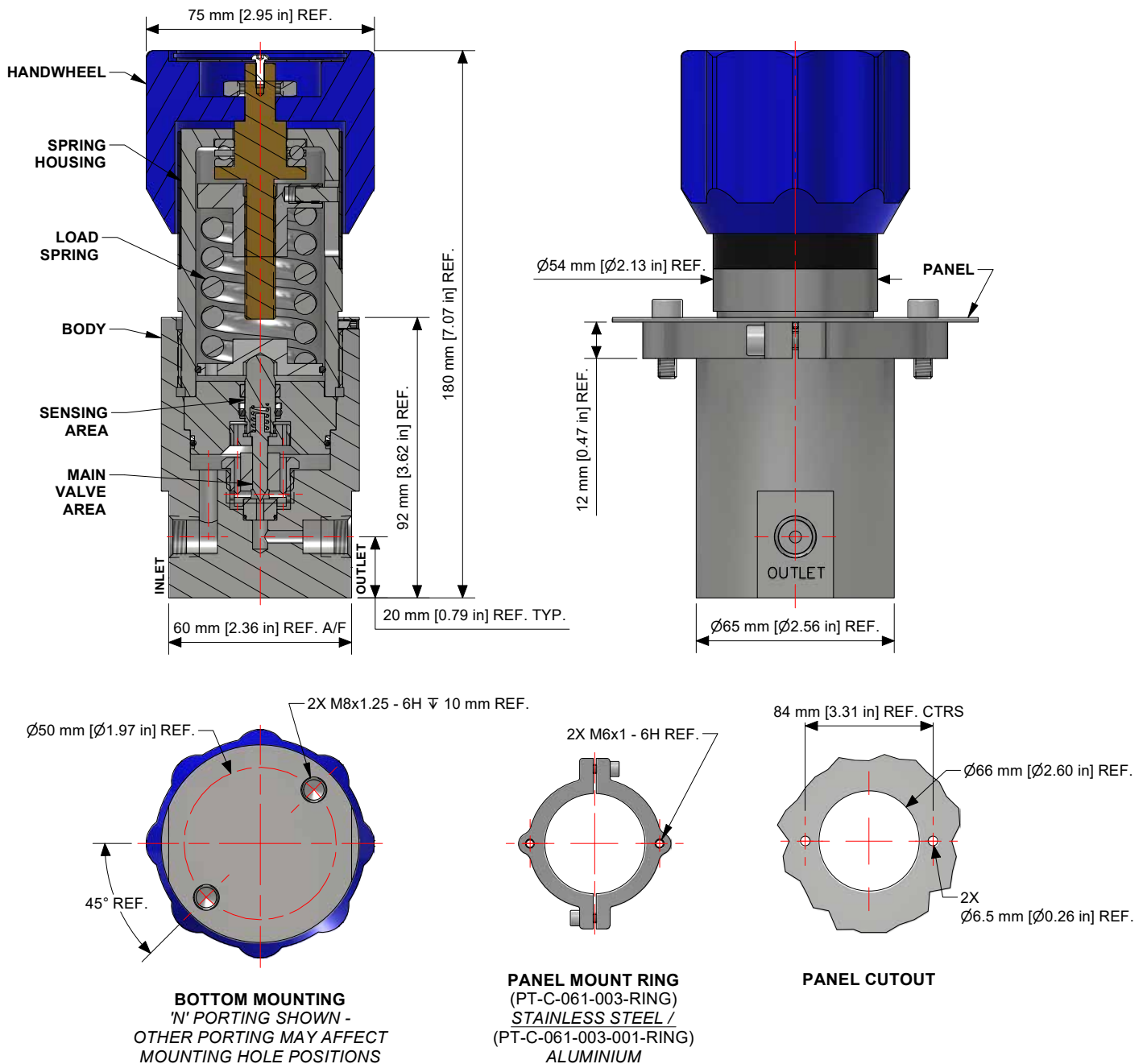
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DRAWINGS AND INSTALLATION DIMENSIONS

Dimensions shown for 1/4" NPT option and standard configurations only - contact the office for other options.



Note: All gauge ports are 1/4" NPT as standard.

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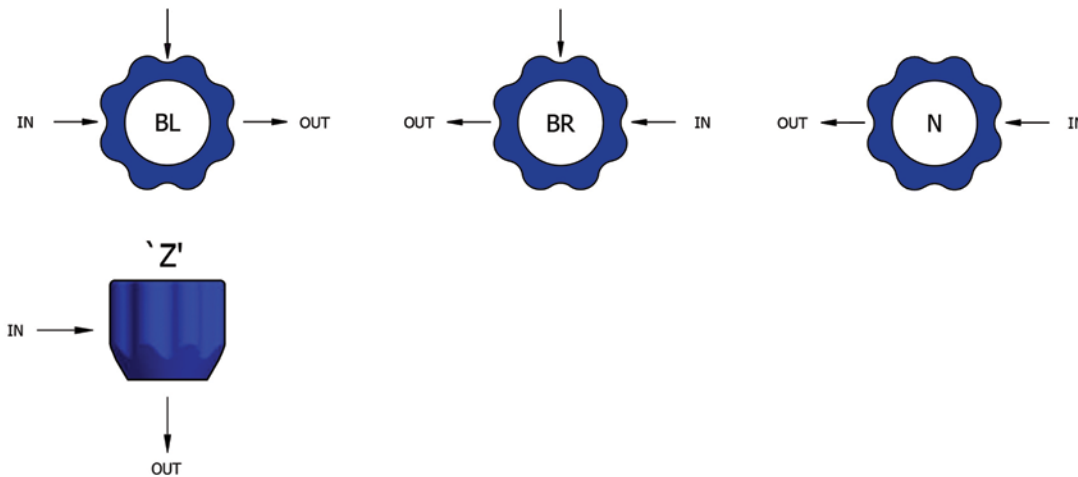


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FLOW CURVE

Please contact the office for further information.

PORTING CONFIGURATIONS



Note:

Additional porting configurations are available - please contact the office for further information.

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ORDERING INFORMATION

To build a Pressure Tech part number, simply combine the characters identified below in sequence:

BP-LF691G 02 S 690S N 03N N XXX							
REGULATOR BP-LF691G – Gas BP-LF691H – Liquid		CV VALUE 01 – 0.1 02 – 0.02		BODY MATERIAL ** S – ASTM A479 316/316L Stainless Steel (max. 690 bar) R – ASTM 17-4 Stainless Steel (691 bar to 1,034 bar & <u>not suitable</u> for H2) Q – ASTM A638/A638M 660 Type 1 Stainless Steel (691 bar to 1,034 bar & <u>suitable</u> for H2)		CONTROL PRESSURE 600 – Up to 600 bar (8,700 psi)*** 690 – Up to 690 bar (10,000 psi) 900 – Up to 900 bar (13,025 psi)**** (‘R’ or ‘Q’ body required) 1034 – Up to 1,034 bar (15,000 psi)*** (‘R’ or ‘Q’ body required)	
LOADING MECHANISM S – Spring-Loaded A – Air-Loaded		MODIFICATIONS* Contact the office for further info.		PORTING CONFIGURATION N - No gauge ports Refer to page 3 for options.		INLET/OUTLET CONNECTION** 02A – 1/4" MP 02N – 1/4" NPT (max. 690 bar on NPT) 03A – 3/8" MP 03N – 3/8" NPT (max. 690 bar on NPT) 04A – 9/16" MP 04N – 1/2" NPT (max. 690 bar on NPT)	
				O-RING MATERIAL ** N – NBR V – FKM/FPM W – FKM/FPM (Low Temp & AED)			

OPTIONAL EXTRAS

	PART NUMBER	DESCRIPTION
Service Kit	SRK-BP-LF691...	Various options available
Panel Mounting Ring	PT-C-061-003-RING	Stainless Steel panel mount ring

Note: Ancillary equipment also available

TRADEMARK: Hastelloy® is a registered trademark of Haynes International, Inc
Inconel® is a registered trademark of Inco Alloys International
PEEK™ is a trademark of Victrex PLC
Phynox® is a registered trademark of Imphy Uguine Precision
Vespel® is a registered trademark of DuPont

* Where applicable
** Other materials/connections may be available
*** Air-loaded only
**** T-Bar adjustment/long bonnet

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Haldatec

Phone: +61 3 9872 5822

Email: sales@haldatec.com.au

Website: www.haldatec.com.au

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