

# BP-LF691 Datasheet

LOW-FLOW BACK PRESSURE REGULATOR



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



## INTRODUCING THE BP-LF691...

The BP-LF691 is a piston-sensed low-flow back pressure regulator for gas or liquid applications. The gas version includes a thermoplastic seat, whilst the liquid version features metal-to-metal seating. In addition to Stainless Steel, it is available in a range of materials including Titanium, Vespel® and Hastelloy®.

The BP-LF691 accurately controls inlet pressure and vents excess pressure back via the threaded NPT or MP outlet port of up to ½".

## SPECIFICATION

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

## STANDARD MATERIALS OF CONSTRUCTION

PART	MATERIALS
Body and Bonnet	AISI 316 / 316L Stainless Steel (UNS S31600 / S31603) AISI 17-4 Stainless Steel (UNS S17400)
Main Valve Pin	Inconel® 718 (UNS N07718)
Seat	PEEK™ or AISI 316 / 316L Stainless Steel (UNS S31600 / S31603)
Valve Spring	Phynox® (R30003)
Piston	AISI 316 / 316L Stainless Steel (UNS S31600 / S31603)
Handwheel	Nylon
'O'-Ring Seals	NBR FKM / FPM
Loading Spring	Alloy Spring Steel

## 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.



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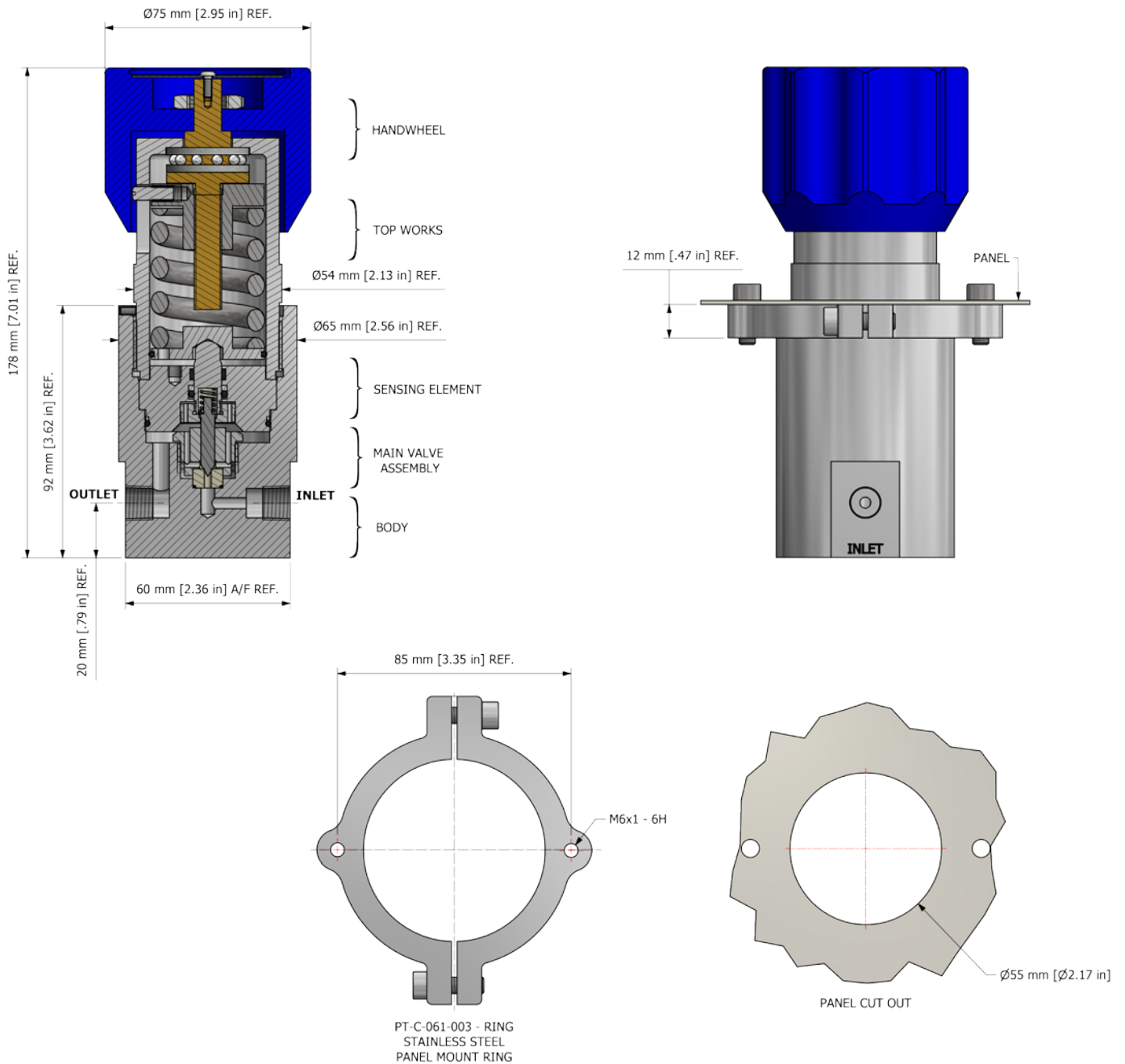
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● Gas ● Liquid | ● Diaphragm ● Piston | Max Rating: 1,034bar (15,000psi) | Control Range: 900bar (13,050psi) | Cv 0.1

## DRAWINGS AND INSTALLATION DIMENSIONS

Dimensions shown for 1/4" NPT option - please contact the office for additional connection options.



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

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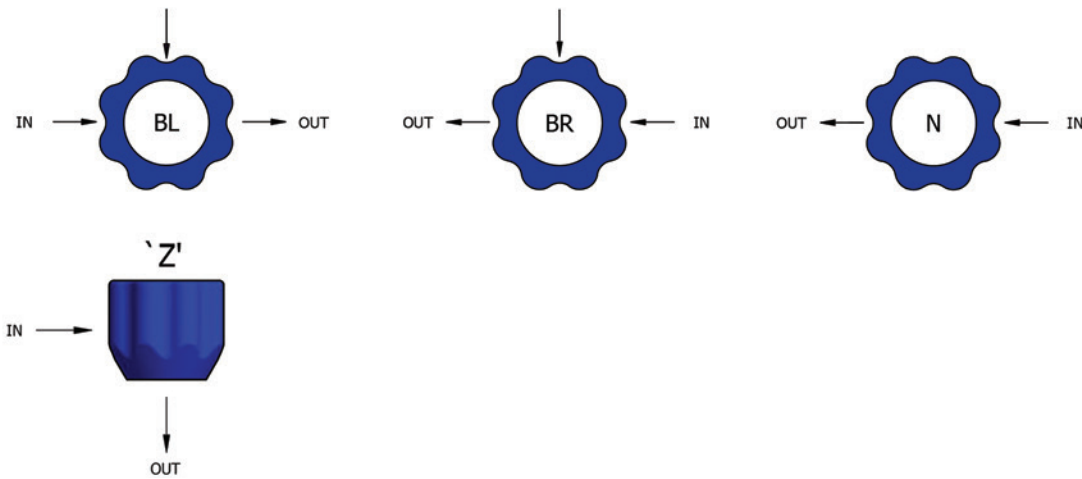
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## FLOW CURVE

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 - 600S - N - 03N - N - XXX	
<p><b>REGULATOR MODEL/SERIES</b></p> <p>BP-LF691G – Low-Flow Back Pressure Regulator - Piston-Sensed - Gas                      BP-LF691H – Low-Flow Back Pressure Regulator - Piston-Sensed - Liquid</p>	<p><b>MODIFICATIONS*</b></p> <p>Please contact the office for further information.</p>
<p><b>CV VALUE</b></p> <p>01 – 0.1                      02 – 0.02</p>	<p><b>PORTING CONFIGURATION</b></p> <p>N - No gauge ports                      Please refer to page 3 for porting configuration options.</p>
<p><b>BODY MATERIAL**</b></p> <p>S – AISI 316 / 316L Stainless Steel (UNS S31600 / S31603)                      R – AISI 17-4 Stainless Steel (UNS S17400)</p>	<p><b>INLET/OUTLET CONNECTION SIZE**</b></p> <p>02 – 1/4"                      03 – 3/8"                      04 – 1/2"</p>
<p><b>CONTROL PRESSURE</b></p> <p>600 – 5 to 600bar (75 to 8,700psi)***                      690 – 5 to 690bar (75 to 10,000psi)                      900 – 5 to 900bar (75 to 13,025psi)                      - 'R' body required</p>	<p><b>INLET/OUTLET CONNECTION TYPE**</b></p> <p>A – MP                      N – NPT</p>
<p><b>LOADING MECHANISM</b></p> <p>S – Spring Loaded                      A – Air Ratio Loaded</p>	<p><b>O-RING MATERIAL**</b></p> <p>N – NBR                      V – FKM/FPM</p>

OPTIONAL EXTRAS		
	PART NUMBER	DESCRIPTION
Service Kit	SRK-BP-LF691...	Various options available
Panel Mounting Ring	PT-C-061-006-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 Ugin Precision  
 Vespel® is a registered trademark of DuPont

\* Where applicable  
 \*\* Other materials/connections may be available - please contact the office  
 \*\*\* Air loaded only  
 \*\*\*\* T-Bar adjustment / long bonnet

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