

LF691 Datasheet

LOW-FLOW PRESSURE REGULATOR



● Gas ● Liquid | ● Diaphragm ● Piston | ● Self-Vent ● Non-Vent | Max Inlet: 1,380 bar (20,000 psi) | Max Outlet: 1,380 bar (20,000 psi) | Cv 0.05/0.1



INTRODUCING THE LF691...

The LF691 is a piston-sensed low-flow reducing regulator with ceramic seating to provide the ultimate protection against the harsh service encountered on water-based hydraulic applications such as water glycol. In addition, the LF691 offers a plug design for supply above 690 bar (10,000 psi).

Its unique seating cartridge ensures the main valve is fully supported during operation to prevent 'chattering'. The LF691 is supplied with a segregated captured vent to prevent deterioration to the loading mechanism and allowing media to be piped off to the return tank.

SPECIFICATION

Max. Rated Inlet Pressure	1,380 bar (20,000 psi)
Outlet Ranges	Up to 1,380 bar (20,000 psi)
Design Proof Pressure	150% max. working pressure
Seat Leakage	In accordance with ANSI/FCI 70-3
Weight	4.8kg (10.6lbs)

* Pressure regulator rating may be limited by connection type, Cv and/or seat material

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	AISI 316/316L Stainless Steel (UNS S31600/S31603) or Ceramic
Seat	Ceramic
Valve Spring	AISI 302 Stainless Steel (UNS S30200)
Piston	AISI 316/316L Stainless Steel (UNS S31600/S31603)
Handwheel	Nylon or T-Bar
O-Rings	NBR, FKM/FPM or HNBR
Loading Spring	Silicon Chrome Wire

FEATURES AND BENEFITS

1 CERAMIC SEATING DESIGN

Provides the ultimate protection against cavitation on hydraulic services.

2 FULLY SUPPORTED MAIN VALVE

Provides a dampening action to prevent 'chattering'.

3 SEGREGATED CAPTURED VENT

Prevents deterioration to loading mechanism and allows media to be piped off to return tank.

4 EASY ACCESS TO SEAT CARTRIDGE

Simplified servicing through base of regulator.

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.



DESIGNED AND BUILT IN THE UK

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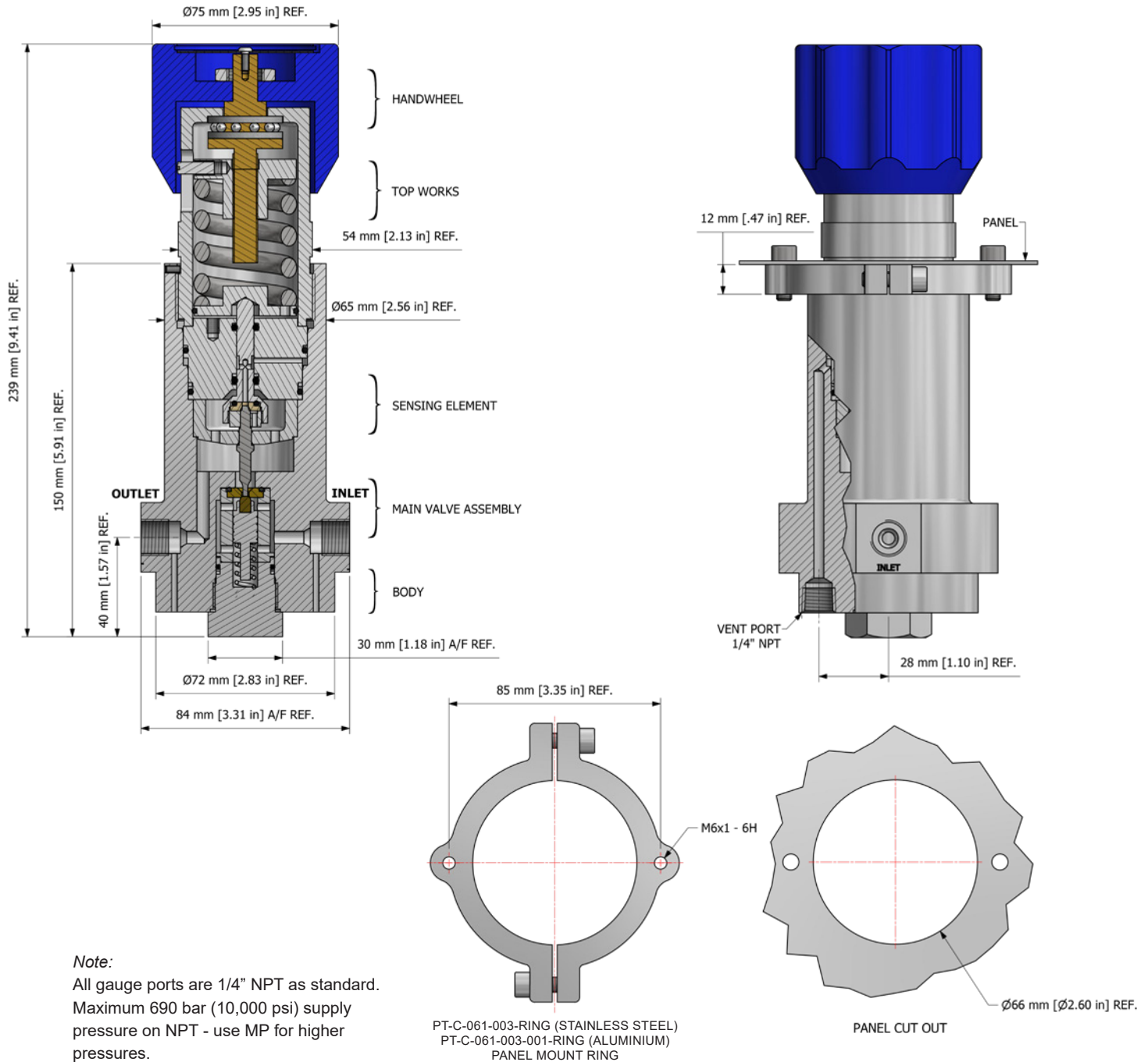
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DRAWINGS AND INSTALLATION DIMENSIONS

Dimensions shown for standard 3/8" MP option - please contact the office for additional connection options.

LF691 design (and dimensions) changes at 1,380 bar (20,000 psi) control pressure to T-Bar adjustment with a long bonnet.



Note:

All gauge ports are 1/4" NPT as standard.
Maximum 690 bar (10,000 psi) supply pressure on NPT - use MP for higher pressures.

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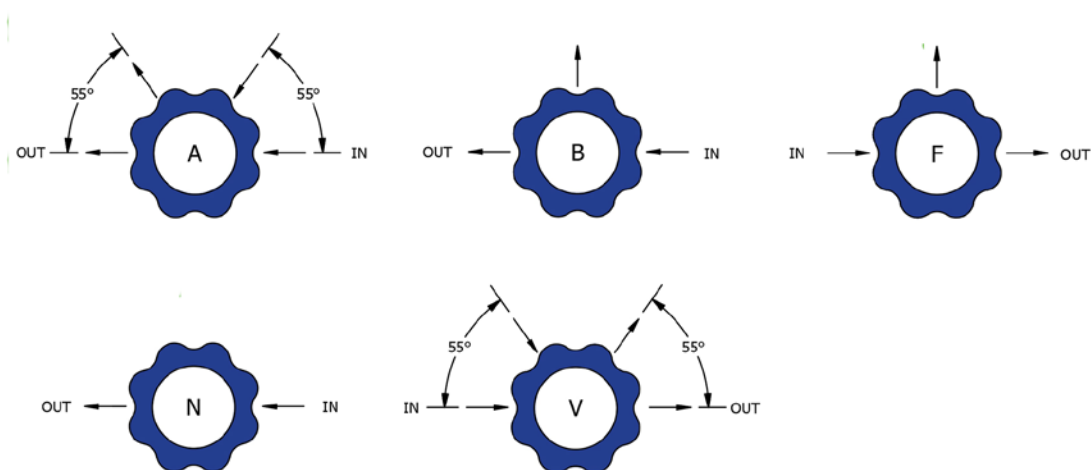


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FLOW CURVE

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:

LF691	01	S	1034S	N	03A	N	NV	XXX
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REGULATOR MODEL/SERIES
LF691 – Low-Flow Pressure Regulator - Piston-Sensed

CV VALUE
05 – 0.05
01 – 0.1 (max. inlet 1,034 bar/15,000 psi)
03 – 0.3 (max. inlet 1,034 bar/15,000 psi)*****

BODY MATERIAL **
S – AISI 316/316L Stainless Steel (UNS S31600/S31603) - max. inlet 1,034 bar/15,000 psi
R – AISI 17-4 Stainless Steel (UNS S17400) - max. inlet 1,380 bar/20,000 psi

CONTROL PRESSURE
50 – Up to 50 bar (725 psi)
100 – Up to 100 bar (1,450 psi)
140 – Up to 140 bar (2,030 psi)***
200 – Up to 200 bar (2,900 psi)
414 – Up to 414 bar (6,000 psi)
600 – Up to 600 bar (8,700 psi)***
690 – Up to 690 bar (10,000 psi)
1,034 – Up to 1,034 bar (15,000 psi)
1,080 – Up to 1,080 bar (15,665 psi)***
1,380 – Up to 1,380 bar (20,000 psi)****

LOADING MECHANISM
S – Spring-Loaded
A – Air-Loaded

MODIFICATIONS*
Please contact the office for further information.

VENTING
SV – Self-Venting (Captured)
NV – Non-Venting

PORTING CONFIGURATION
N - No gauge ports
Please refer to page 3 for porting configuration options.

INLET/OUTLET CONNECTION**
02A – 1/4" Medium Pressure
02N – 1/4" NPT†
03A – 3/8" Medium Pressure
03N – 3/8" NPT†
04A – 9/16" Medium Pressure
04N – 1/2" NPT†

O-RING MATERIAL **
N – NBR
V – FKM/FPM
H – HNBR

OPTIONAL EXTRAS - ANCILLARY EQUIPMENT ALSO AVAILABLE

	PART NUMBER	DESCRIPTION
Service Kit	SRK-LF691...	Various options available
Panel Mounting Ring	PT-C-061-003-RING	Stainless Steel panel mount ring
Panel Mounting Ring	PT-C-061-003-001-RING	Aluminium panel mount ring

* Where applicable

** Other connections/materials may be available

*** Air-loaded only

**** T-Bar adjustment/long bonnet

***** Control pressure ≤ 690 bar (10,000 psi), 'S' body material required

Control pressure > 690 bar (10,000 psi), 'R' body material required

† Max. 690 bar (10,000 psi) supply pressure on NPT
- use MP for higher pressures

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