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)	

FEATURES AND BENEFITS

CERAMIC SEATING DESIGN

Provides the ultimate protection against cavitation on hydraulic services. 2 FULLY SUPPORTED MAIN VALVE

Provides a dampening action to prevent 'chattering'.

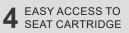
STANDARD MATERIALS OF CONSTRUCTION

PART	MATERIALS
Body and Bonnet	ASTM A479 316/316L Stainless Steel (UNS S31600/S31603)
	ASTM A479 17-4 Stainless Steel (UNS S17400)
Main Valve Pin	ASTM A479 316/316L Stainless Steel
	Ceramic (Zirconia)
Seat	Ceramic (Zirconia)
Valve Spring	ASTM A240 301 Stainless Steel (UNS S30100)
Piston	ASTM A479 316/316L Stainless Steel
Handwheel	Nylon or T-Bar
	NBR N70 (Nitrile Buna N)
O-Rings	FKM/FPM (Viton)
	HNBR (Hydrogenated NBR)
Loading Spring	Silicon Chrome Wire

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

3 SEGREGATED CAPTURED VENT

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



Simplified servicing through base of regulator.

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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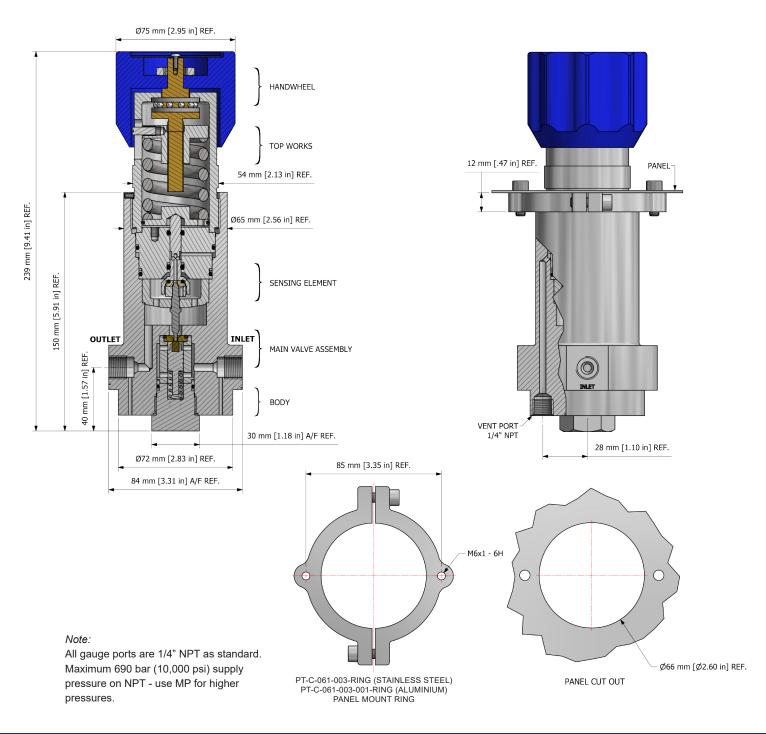
Product availability and specifications contained herein are subject to change without notice. Consult local distributor or factory for potential revisions and/or service related issues





DRAWINGS AND INSTALLATION DIMENSIONS

Dimensions shown for 3/8" MP option and standard configurations only - contact the office for other options. LF691 design (and dimensions) changes at 1,380 bar (20,000 psi) control pressure to T-Bar adjustment with a long bonnet.



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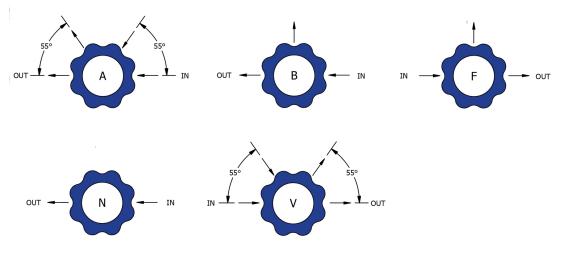




FLOW CURVE

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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● 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
ORDERING INFORMATION To build a Pressure Tech part number, simp	ly comb	ine the characters identified b	elow in sequence:	
LF691 - 01	- S - 1	034S - N - 03A - N - NV - 2	XXX	
REGULATOR LF691 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**			MODIFICATIONS* Contact the office for further informatio VENTING SV – Self-Venting (Captured) NV – Non-Venting PORTING CONFIGURATION N - No gauge ports Refer to page 3 for porting options.	n.
S – ASTM A479 316/316L Stainless Steel (max. inlet 1,034 bar/15,000psi) R – ASTM A479 17-4 Stainless Steel (max. inlet 1,380 bar/20,000psi)			INLET/OUTLET CONNECTION** 02A – 1/4" Medium Pressure 02N – 1/4" NPT [†] 03A – 3/8" Medium 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)			03N – 3/8" NPT [†] 04A – 9/16" Medium Pressure 04N – 1/2" NPT [†] O-RING MATERIAL **	
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)****			N – NBR V – FKM/FPM H – HNBR	
LOADING MECHANISM S – Spring-Loaded				

S - Spring-Loaded

A-Air-Loaded

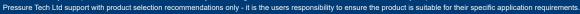
OPTIONAL EXTRAS - ANCILLARY EQUIPMENT ALSO AVAILABLE				
	PART NUMBER	DESCRIPTION		
Service Kit	SRK-LF691	Various options available		
Panel Mounting Ring	PT-C-061-003-RING	Stainless Steel panel mount ring		
Panel Mounting Ring	PT-C-061-003-001-RING	Aluminium panel mount ring		

* 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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