

# BP-MF691 (05) Datasheet

## MEDIUM-FLOW BACK PRESSURE REGULATOR



Gas  
  Liquid  
 |  
  Diaphragm  
  Piston  
 |  
 Max Rating: 1,034 bar (15,000 psi)  
 |  
 Control Range: 900 bar (13,025 psi)  
 |  
 Cv 0.5



### INTRODUCING THE BP-MF691 (05)...

The BP-MF691 (05) is a piston-sensed medium-flow back pressure regulator for liquid applications. It includes Hastelloy® seating for excellent protection from cavitation and positive shut-off on medium-flow applications.

The BP-MF691 (05) accurately controls inlet pressures of up to 900 bar (13,050 psi) and vents excess pressure back via the threaded NPT or Medium Pressure outlet port.

### SPECIFICATION

Max. Rating	1,034 bar (15,000 psi)
Control Range	Up to 900 bar (13,025 psi)
Design Proof Pressure	150% max. working pressure
Seat Leakage	In accordance with ANSI/FCI 70-3
Weight	5kg (11lbs)

### STANDARD MATERIALS OF CONSTRUCTION

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

### FEATURES AND BENEFITS

#### 1 PISTON SENSING ELEMENT

Perfect for use in challenging conditions.

#### 2 PRECISION MACHINED SENSING ELEMENT

For accurate pressure control.

#### 3 OPTIONAL AIR ACTUATOR

For fine remote adjustment.

#### 4 OPTIONAL FLANGED CONNECTION

For compatibility with flanged systems.

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

#### PRESSURE TECH LTD

Unit 24, Graphite Way, Hadfield, Glossop, Derbyshire, UK, SK13 1QH  
 T +44 (0)1457 899 307  
 E info@pressure-tech.com  
 W www.pressure-tech.com

280319

PAGE:  
1 OF 4

# BP-MF691 (05) Datasheet

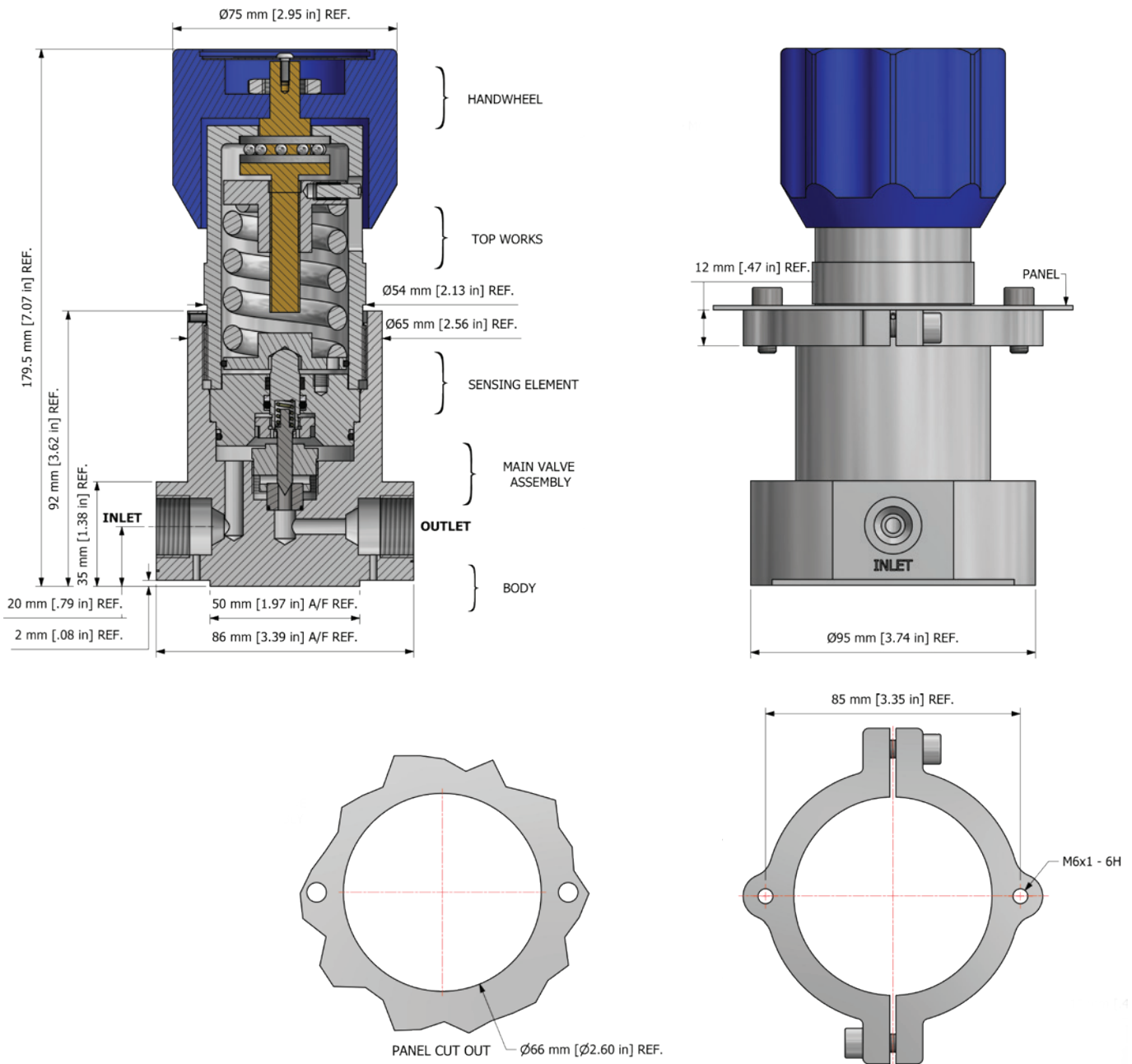
MEDIUM-FLOW BACK PRESSURE REGULATOR



● Gas ● Liquid | ● Diaphragm ● Piston | Max Rating: 1,034 bar (15,000 psi) | Control Range: 900 bar (13,025 psi) | Cv 0.5

## DRAWINGS AND INSTALLATION DIMENSIONS

Dimensions shown for 1/2" Medium Pressure option - please contact the office for additional connection options.



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

PT-C-061-003-RING  
STAINLESS STEEL  
PANEL MOUNT RING

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

**PRESSURE TECH LTD**  
Unit 24, Graphite Way, Hadfield, Glossop, Derbyshire, UK, SK13 1QH  
T +44 (0)1457 899 307  
E info@pressure-tech.com  
W www.pressure-tech.com

280319

PAGE:  
2 OF 4

# BP-MF691 (05) Datasheet

MEDIUM-FLOW BACK PRESSURE REGULATOR

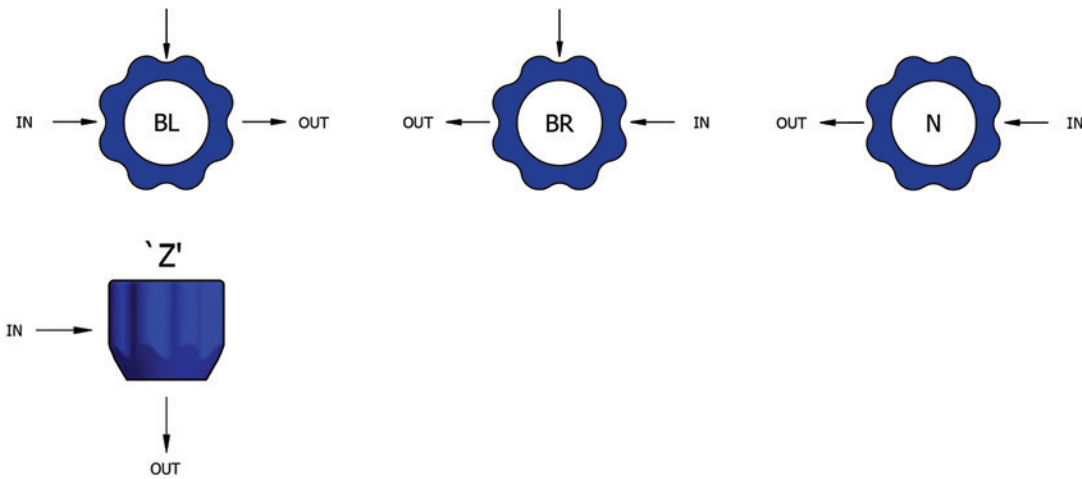


● Gas ● Liquid | ● Diaphragm ● Piston | Max Rating: 1,034 bar (15,000 psi) | Control Range: 900 bar (13,025 psi) | Cv 0.5

## FLOW CURVE

Please contact the office for further information.

## PORTING CONFIGURATIONS



*Note:*

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

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

### PRESSURE TECH LTD

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

T +44 (0)1457 899 307

E [info@pressure-tech.com](mailto:info@pressure-tech.com)

W [www.pressure-tech.com](http://www.pressure-tech.com)

280319

PAGE:  
3 OF 4

# BP-MF691 (05) Datasheet

MEDIUM-FLOW BACK PRESSURE REGULATOR



Gas  
  Liquid  
  Diaphragm  
  Piston  
 Max Rating: 1,034 bar (15,000 psi)  
 Control Range: 900 bar (13,025 psi)  
 Cv 0.5

## ORDERING INFORMATION

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

BP-MF691H - 05 - S - 690S - N - 03N - N - XXX	
<b>REGULATOR MODEL/SERIES</b> BP-MF691H – Medium-Flow Back Pressure Regulator - Piston-Sensed - Liquid	<b>MODIFICATIONS*</b> Please contact the office for further information.
<b>CV VALUE</b> 05 – 0.5	<b>PORTING CONFIGURATION</b> N - No gauge ports Please refer to page 3 for porting configuration options.
<b>BODY MATERIAL**</b> S – AISI 316 / 316L Stainless Steel (UNS S31600 / S31603) R – AISI 17-4 PH Stainless Steel (UNS S17400)	<b>INLET/OUTLET CONNECTION**</b> 03A – 3/8" Medium Pressure 03N – 3/8" NPT 04A – 9/16" Medium Pressure 04N – 1/2" NPT 06A – 3/4" Medium Pressure 06N – 3/4" NPT
<b>CONTROL PRESSURE</b> 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' body required	<b>O-RING MATERIAL**</b> E – EPDM K – FFKM/FFPM N – NBR V – FKM/FPM
<b>LOADING MECHANISM</b> S – Spring Loaded A – Air Ratio Loaded	

OPTIONAL EXTRAS		
	PART NUMBER	DESCRIPTION
Service Kit	SRK-BP-MF691-05...	Various options available
Panel Mounting Ring	PT-C-061-003-RING	Panel mount ring

*Note:*  
Ancillary equipment also available

**TRADEMARK:** Elgiloy® is a registered trademark of Elgiloy Specialty Metals  
 Inconel® is a registered trademark of Inco Alloys International  
 Hastelloy® is a registered trademark of Haynes International, Inc

\* Where applicable  
 \*\* Other materials/connections may be available - please contact the office  
 \*\*\* Air loaded only

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

**PRESSURE TECH LTD**  
 Unit 24, Graphite Way, Hadfield, Glossop, Derbyshire, UK, SK13 1QH  
 T +44 (0)1457 899 307  
 E info@pressure-tech.com  
 W www.pressure-tech.com

280319

PAGE:  
4 OF 4