

MF414 Datasheet

MEDIUM-FLOW PRESSURE REGULATOR



● Gas ● Liquid | ● Diaphragm ● Piston | ● Self-Venting ● Non-Venting | Max Inlet: 414 bar (6,000 psi) | Max Outlet: 414 bar (6,000 psi) | Cv 2.0



INTRODUCING THE MF414...

The MF414 is a medium-flow piston-sensed pressure regulator with a **balanced main valve** design to provide stable control under varying inlet pressures. Its versatility enables use on liquid (with a ceramic seat) or gas (with a PEEK™ seat) applications.

Both designs feature a segregated captured vent to allow pressure reduction of the outlet pressure through a 1/4" NPT port on the side of the regulator's body.

SPECIFICATION

Max. Rated Inlet Pressure	414 bar (6,000 psi)
Outlet Ranges	Up to 414 bar (6,000 psi)
Design Proof Pressure	150% max. working pressure
Seat Leakage	In accordance with ANSI/FCI 70-3
Weight	6kg (13.2lbs)

STANDARD MATERIALS OF CONSTRUCTION

PART	MATERIALS
Body and Bonnet	ASTM A479 316/316L Stainless Steel (UNS S31600/S31603)
Main Valve Pin	ASTM A479 316/316L Stainless Steel (UNS S31600/S31603)
Soft Seat	PEEK™ (450G)
	Ceramic (Zirconia)
Valve Spring	ASTM A240 301 Stainless Steel (UNS S30100)
Piston	ASTM A479 316/316L Stainless Steel (UNS S31600/S31603)
Handwheel	Nylon
O-Rings	NBR N70 (Nitrile Buna N)
Loading Spring	ASTM A240 301 Stainless Steel

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 BALANCED MAIN VALVE DESIGN

Improved control across the pressure range.

3 SEGREGATED CAPTURED VENT

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

4 HIGH FLOW COEFFICIENT

Cv 2.0 for higher flow capabilities.

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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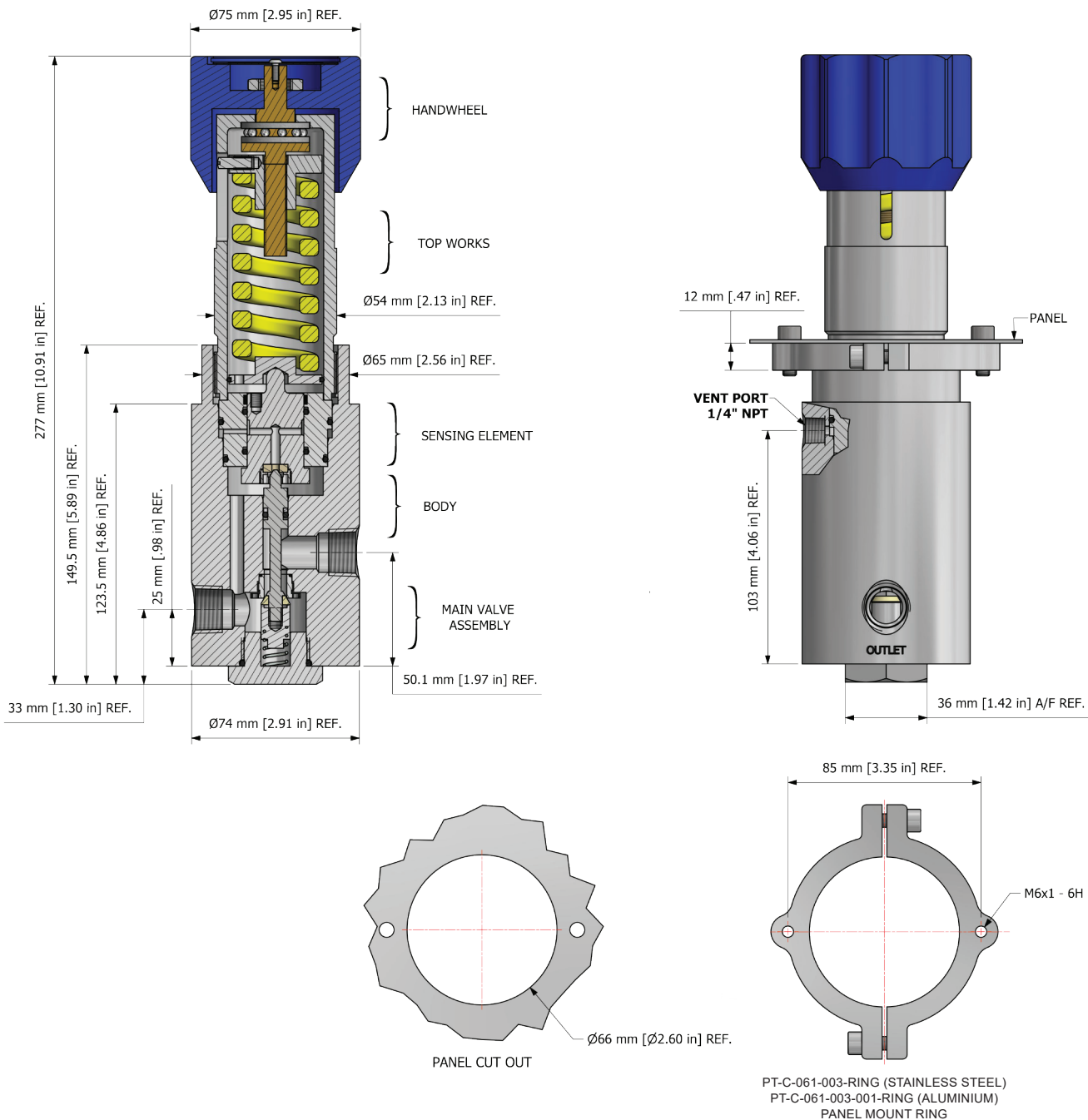
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DRAWINGS AND INSTALLATION DIMENSIONS

Dimensions shown for 1/2" NPT option and standard configurations only - please contact the office for other options.



Note:

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

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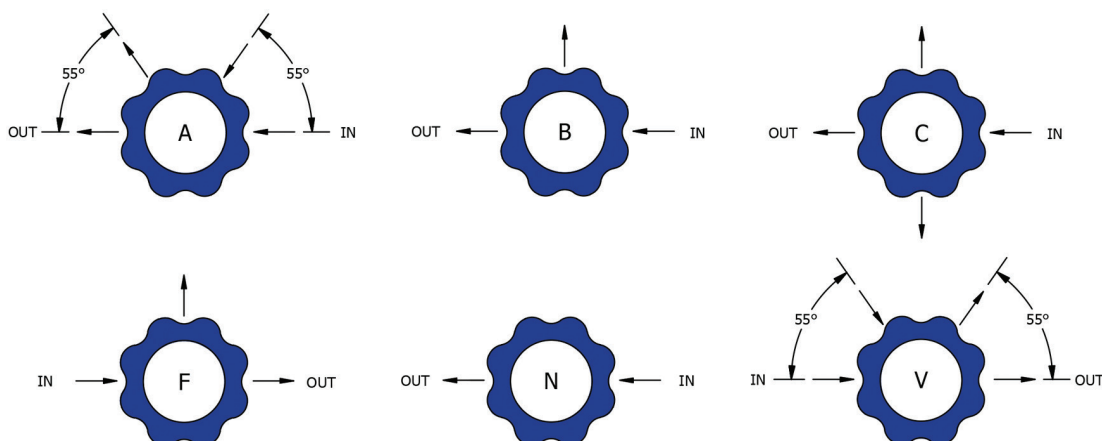


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FLOW CURVE

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:

MF414G - 2 - S - 10S - N - 04N - N - NV - XXX									
MODEL MF414G – Gas MF414H – Liquid			MODIFICATIONS* Contact the office for information.						
CV VALUE 2 – 2.0			VENTING NV – Non-Venting SV – Self-Venting						
BODY MATERIAL** S – ASTM A479 316/316L Stainless Steel			PORTING CONFIGURATION N – No gauge ports Refer to page 3 for porting options.						
CONTROL PRESSURE 10 – Up to 10 bar (145 psi) 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) 400 – Up to 400 bar (5,800 psi) 414 – Up to 414 bar (6,000 psi)			INLET/OUTLET CONNECTION** 04B – 1/2" BSPP 04N – 1/2" NPT 06A – 3/4" Medium Pressure 06B – 3/4" BSPP 06N – 3/4" NPT 08B – 1" BSPP 08N – 1" NPT						
LOADING MECHANISM S – Spring-Loaded A – Air-Loaded			O-RING MATERIAL** E – EPDM N – NBR V – FKM/FPM						

OPTIONAL EXTRAS

	PART NUMBER	DESCRIPTION
Service Kit	SRK-MF414-2-B...	Various options available
Panel Mount Ring	PT-C-061-003-RING	Stainless Steel panel mount ring
Panel Mount Ring	PT-C-061-003-001-RING	Aluminium panel mount ring

Note: Ancillary equipment also available

TRADEMARKS: Inconel® is a registered trademark of Inco Alloys International
PEEK™ is a trademark of Victrex PLC

* Where applicable

** Other connections/materials may be available

*** Air-loaded only

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