

# AUTO438 Datasheet

PRESSURE REGULATOR FOR  
HYDROGEN FUEL CELL VEHICLES

● Gas ● Liquid | ● Diaphragm ● Piston | ● Self-Venting ● Non-Venting | Max Inlet: 438 bar (6,350 psi) | Max Outlet: 20 bar (290 psi) | Cv 0.5



**EC79**  
PENDING

## INTRODUCING THE AUTO438...

The AUTO438 is a piston-sensed pressure regulator, designed specifically for Hydrogen fuel cell vehicles. With a **balanced main valve** as standard, it offers stable control of outlet pressures up to 20 bar (290 psi) from a maximum 438 bar (6,350 psi) inlet pressure.

In addition to critical safety features such as its double o-ring backup, the AUTO438 offers convenient access to the seat cartridge in the base of the regulator for simplified servicing.

## SPECIFICATION

Max. Rated Inlet Pressure	438 bar (6,350 psi)
Outlet Ranges	Up to 20 bar (290 psi)
Design Proof Pressure	150% max. working pressure
Seat Leakage	In accordance with ANSI/FCI 70-3
Weight	2.7kg (5.95lbs)

## STANDARD MATERIALS OF CONSTRUCTION

PART	MATERIALS
Body	AISI 316 / 316L Stainless Steel (UNS S31600 / S31603)
Main Valve Pin	AISI 316 / 316L Stainless Steel (UNS S31600 / S31603)
Seat	PEEK™
Valve Spring	Elgiloy® (UNS R30003)
Piston	AISI 316 / 316L Stainless Steel (UNS S31600 / S31603)
'O'-Ring Seals	EPDM
Loading Spring	AISI 316 / 316L Stainless Steel (UNS S31600 / S31603)
Filter	30 Microns

## FEATURES AND BENEFITS

### 1 DOUBLE O-RING

Safety back-up in the event of primary o-ring failure during use.

### 2 EASY ACCESS TO SEAT CARTRIDGE

Simplified servicing through the base of the regulator.

### 3 IN-LINE VENT PORT

For simplified assembly.

### 4 BALANCED MAIN VALVE DESIGN

Improved control across the pressure range.

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

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## DRAWINGS AND INSTALLATION DIMENSIONS



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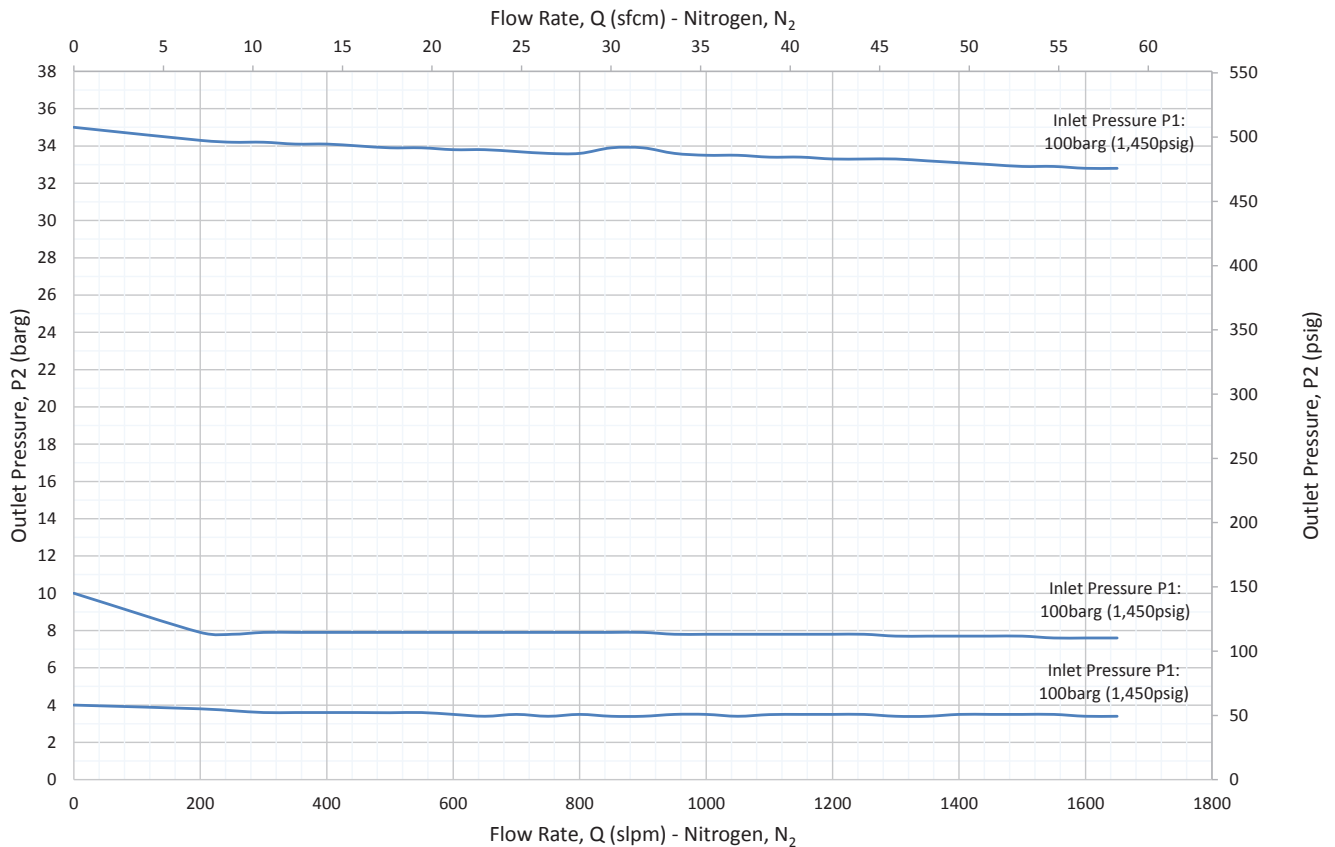
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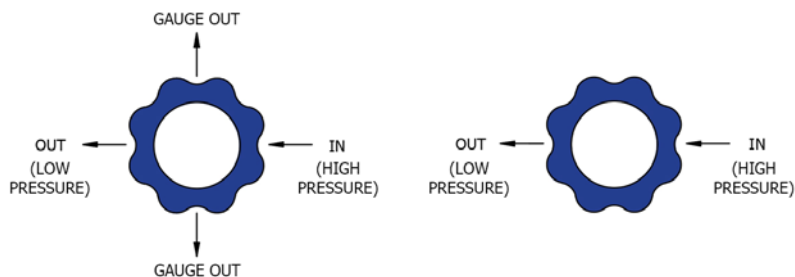
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## FLOW CURVE



## PORTING CONFIGURATIONS



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## ORDERING INFORMATION

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

AUTO438 - 5 - S - 10 - V - AN - XXX	
<b>REGULATOR MODEL/SERIES</b> AUTO438 – Pressure Regulator for Hydrogen Fuel Cell Vehicles - Piston-Sensed	<b>MODIFICATIONS*</b> Please contact the office for further information.
<b>CV VALUE</b> 5 – 0.5	<b>CONNECTION SIZE**</b> A – ¼" inlet, ¼" outlet & ¼" gauge B – ⅜" inlet, ⅜" outlet & ¼" gauge C – ⅜" inlet, ½" outlet & ¼" gauge D – ½" inlet, ½" outlet & ¼" gauge E – ¾" inlet, ¼" outlet & ¼" gauge F – ¼" inlet, ¼" outlet & no gauge G – ⅜" inlet, ⅜" outlet & no gauge H – ⅜" inlet, ½" outlet & no gauge I – ½" inlet, ½" outlet & no gauge J – ¾" inlet, ¼" outlet & no gauge
<b>BODY MATERIAL**</b> S – AISI 316 / 316L Stainless Steel (UNS S31600 / S31603)	<b>CONNECTION TYPE**</b> N – NPT S – SAE Straight Thread inlet
<b>SET PRESSURE</b> 10 – 10 bar (145 psi) 15 – 15 bar (215 psi) 20 – 20 bar (290 psi)	
<b>O-RINGS</b> E – EPDM V – FKM / FPM	

## OPTIONAL EXTRAS

	PART NUMBER	DESCRIPTION
Service Kit	SRK-MF101-05-B...	Various 'Balanced' options available

*Note:*  
Ancillary equipment also available

**TRADEMARKS:** PEEK™ is a trademark of Victrex PLC  
Elgiloy® is a registered trademark of Elgiloy Specialty Metals

\* Where applicable  
\*\* Other options may be available - please contact the office

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