AUTO875 Datasheet

PRESSURE REGULATOR FOR
HYDROGEN FUEL CELL PASSENGER VEHICLES

PRESSURE TECH

Gas | Liquid | Diaphragm | Piston | Self-Venting | Non-Venting | Max Inlet: 875 bar (12,690 psi) | Max Outlet: 20 bar (290 psi) | Cv 0.5

Note: Regulator shown is AUTO438.

EC79 PENDING

INTRODUCING THE AUTO875...

The AUTO875 is a high-pressure, piston-sensed pressure regulator with a solid disk design, designed specifically for Hydrogen fuel cell passenger vehicles. With a **balanced main valve** as standard it offers stable control of outlet pressures up to 20 bar (290 psi) from a maximum 875 bar (12,690 psi) inlet pressure.

In addition to critical safety features such as its double o-ring backup, the AUTO875 offers convenient access to the seat cartridge in the base of the regulator for simplified servicing.

SPECIFICATION

Max. Rated Inlet Pressure	875 bar (12,690 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)

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

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	Tecasint®
Valve Spring	Elgiloy® (UNS R30003)
Piston	AISI 316/316L Stainless Steel (UNS S31600/S31603)
O-Rings	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 THREE OPTIONAL MOUNTING ARRANGEMENTS

To suit users application/set-up.

4 IN-LINE LEAKAGE SENSE LINE

Easy to connect pipework to sense for H2 leakge, and makes set point anti-tamper proof.

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 sales@pressure-tech.com
W www.pressure-tech.com

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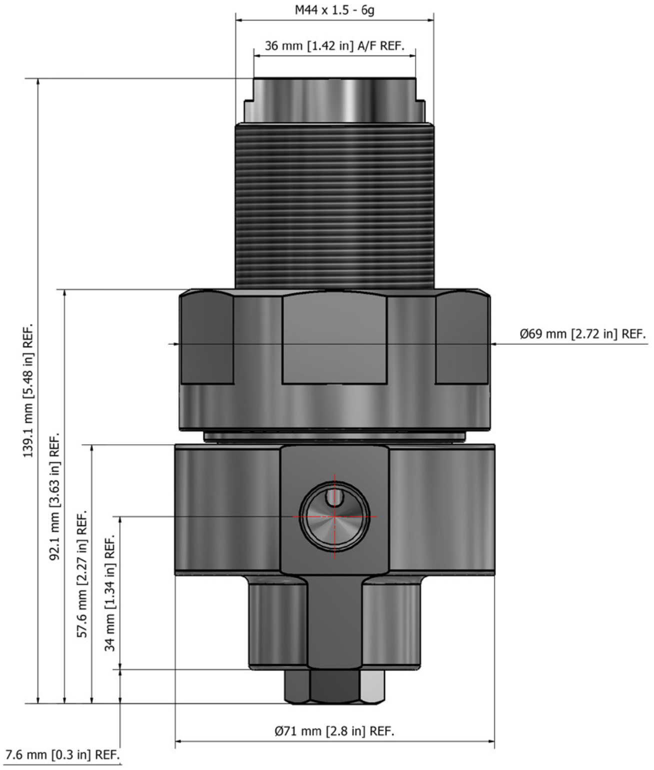
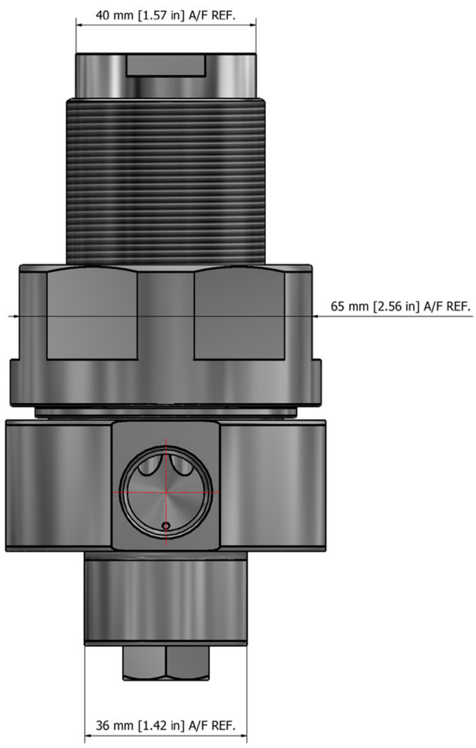
DRAWINGS AND INSTALLATION DIMENSIONS

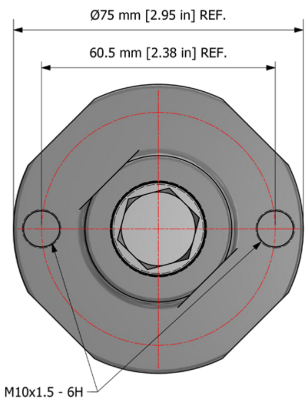




MOUNTING CONFIGURATION OPTIONS

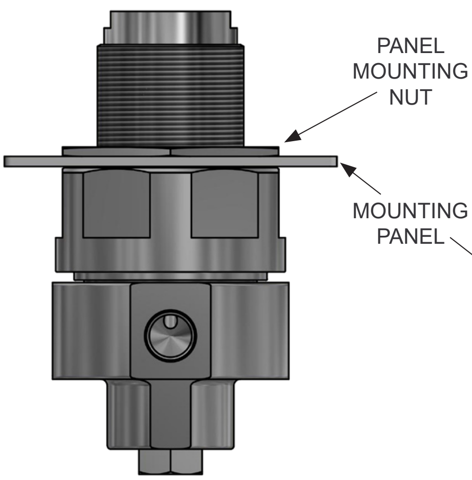
1. Body Mounting

Uses the two bolt holes at the bottom of the body for mounting.



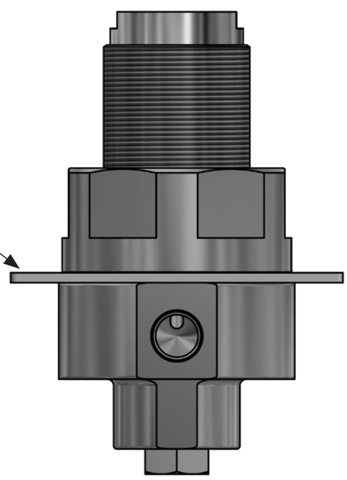
2. Bonnet Mounting

Mounting panel is secured between the body and bonnet with a panel mounting nut.



3. Head-Work Mounting

Mounting panel is secured between the body and head-work.



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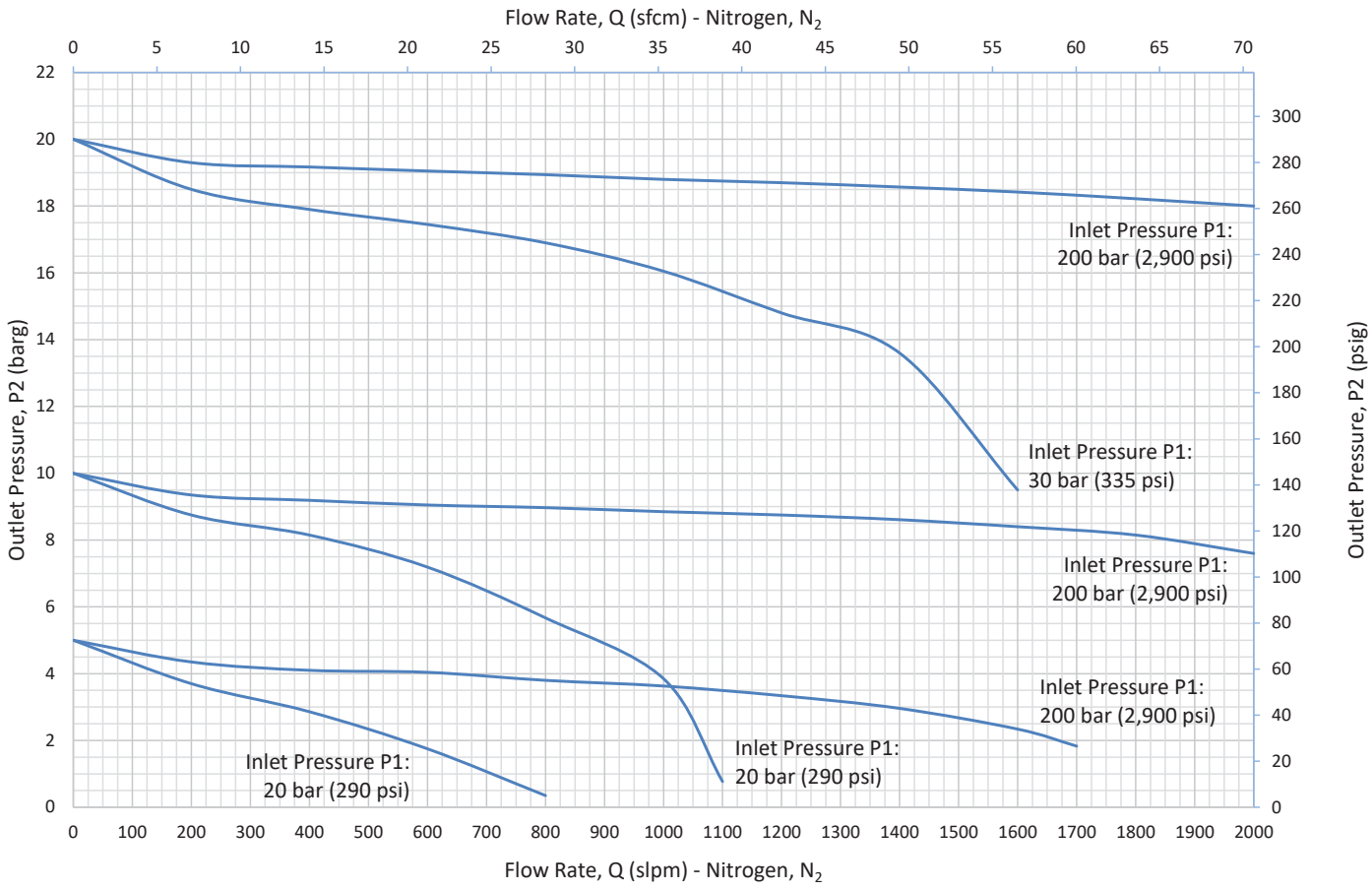
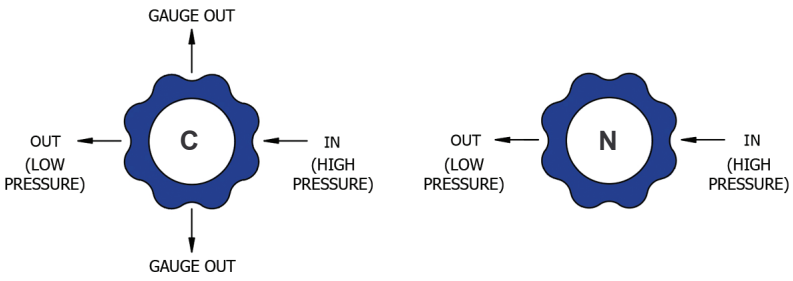
FLOW CURVE



PORTING CONFIGURATIONS



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ORDERING INFORMATION

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

AUTO875 – 5 – S – 10 – V – AN – C – XXX

REGULATOR MODEL/SERIES

AUTO875 – Pressure Regulator for Hydrogen Fuel Cell Passenger Vehicles - Piston-Sensed

CV VALUE

5 – 0.5

BODY MATERIAL**

S – AISI 316/316L Stainless Steel (UNS S31600/S31603)

SET PRESSURE

10 – 10 bar (145 psi)
15 – 15 bar (215 psi)
20 – 20 bar (290 psi)

O-RINGS**

E – EPDM
V – FKM/FPM

CONNECTION SIZE**

A – 1/4" inlet, 1/4" outlet & 1/4" gauges
B – 3/8" inlet, 3/8" outlet & 1/4" gauges
C – 3/8" inlet, 1/2" outlet & 1/4" gauges
D – 1/2" inlet, 1/2" outlet & 1/4" gauges
E – 3/8" inlet, 1/4" outlet & 1/4" gauges
F – 1/4" inlet, 1/4" outlet & no gauge
G – 3/8" inlet, 3/8" outlet & no gauge
H – 3/8" inlet, 1/2" outlet & no gauge
I – 1/2" inlet, 1/2" outlet & no gauge
J – 3/8" inlet, 1/4" outlet & no gauge
K – 1/2" inlet, 1/2" outlet & 1/2" gauges

CONNECTION TYPE**

N – NPT
S – SAE Straight Thread Inlet

PORTING CONFIGURATION

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

MODIFICATIONS*

Please contact the office for further information.

OPTIONAL EXTRAS

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

Note:
Ancillary equipment also available

TRADEMARKS: Inconel® is a registered trademark of Inco Alloys International
Tecasint® is a registered trademark of Ensinger GmbH

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

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