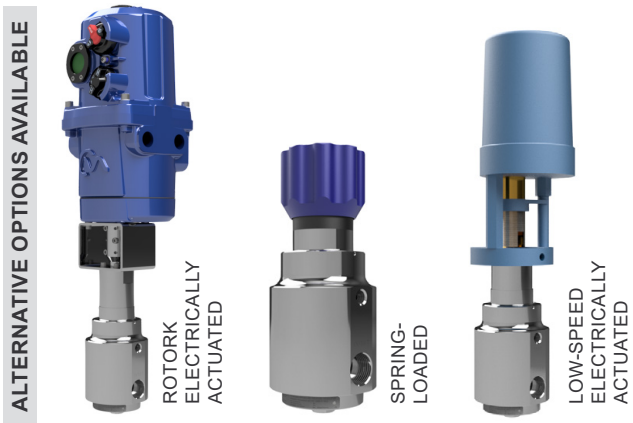
RF1034 Datasheet

PRESSURE REGULATOR FOR HYDROGEN REFUELLING APPLICATIONS

Gas | Liquid | Diaphragm | Piston | Self-Venting | Non-Venting | Max Inlet: 1,034 bar (15,000 psi) | Max Outlet: 1,034 bar (15,000 psi) | Cv 0.5/1.0



INTRODUCING THE RF1034...

The RF1034 is a piston-sensed pressure regulator, designed for high pressure hydrogen refuelling applications up to 1,034 bar (15,000 psi).

With a **balanced main valve design** as standard, the RF1034 offers accurate control of the high pressures typically associated with hydrogen refuelling points.

The high-flow RF1034 is designed to ISO 19880-3 and offers convenient access to the seat cartridge in the base of the regulator for simplified servicing.

SPECIFICATION

Max. Rated Inlet Pressure	1,034 bar (15,000 psi)
Outlet Ranges	Up to 1,034 bar (15,000 psi)
Design Proof Pressure	150% max. working pressure
Seat Leakage	In accordance with ANSI/FCI 70-3
Weight	Pneumatic: 11.4kg (25.1lbs) Low-Speed Electric: 11.7kg (25.8lbs) Rotork Electric: 17kg (37.5lbs) Manual: 7kg (15.4lbs)

STANDARD MATERIALS OF CONSTRUCTION

PART	MATERIALS
Body and Bonnet	ASTM A479 316/316L Stainless Steel (UNS S31600/S31603)
	ASTM A638/A638M 660 Type 1 Stainless Steel (UNS S66286)
Main Valve	Inconel® 718 (UNS N07718)
Seat	Tecasint® 2011
Valve Spring	Elgiloy® / Phynox®
Sensor	ASTM A479 316/316L Stainless Steel
O-Rings	FKM/FPM
Filter	30 Microns

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 HIGH-FLOW

Cv 0.5 or 1.0 for refuelling times as per SAE J2601 refuelling protocol.

2 DESIGNED TO ISO 19880-3

For safe performance of high pressure gas valves used in gaseous hydrogen stations.

3 VARIOUS ACTUATOR OPTIONS

Electrically actuated, pneumatically actuated or spring-loaded options for control of regulator.

4 EASY ACCESS TO SEAT CARTRIDGE

Simplified servicing through the base of the regulator.

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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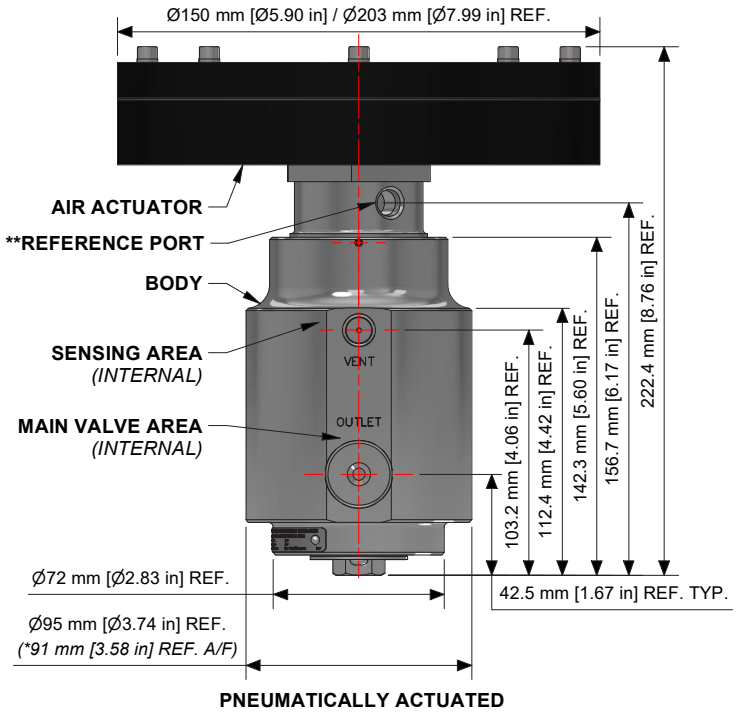
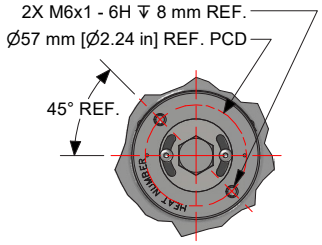
DRAWING AND INSTALLATION DIMENSIONS

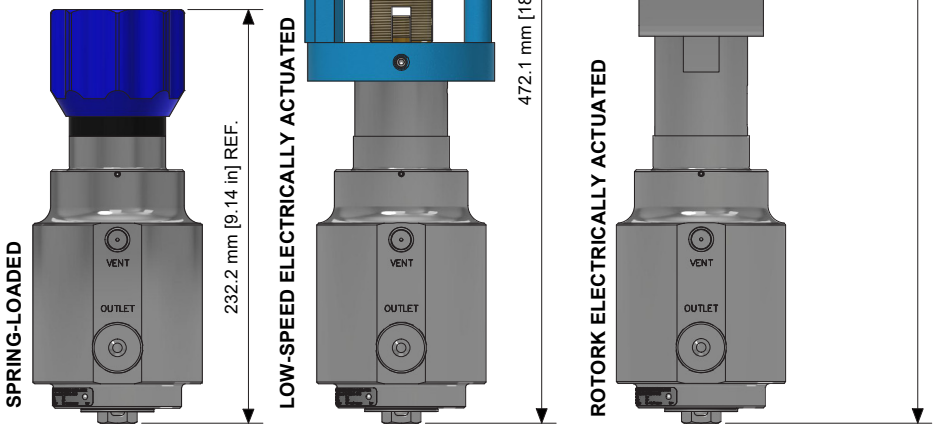


PNEUMATICALLY ACTUATED

* ACROSS FLATS BETWEEN INLET AND OUTLET PORTS
** NOTE THE REFERENCE PORT ORIENTATION IS NOT FIXED



PANEL MOUNT HOLES



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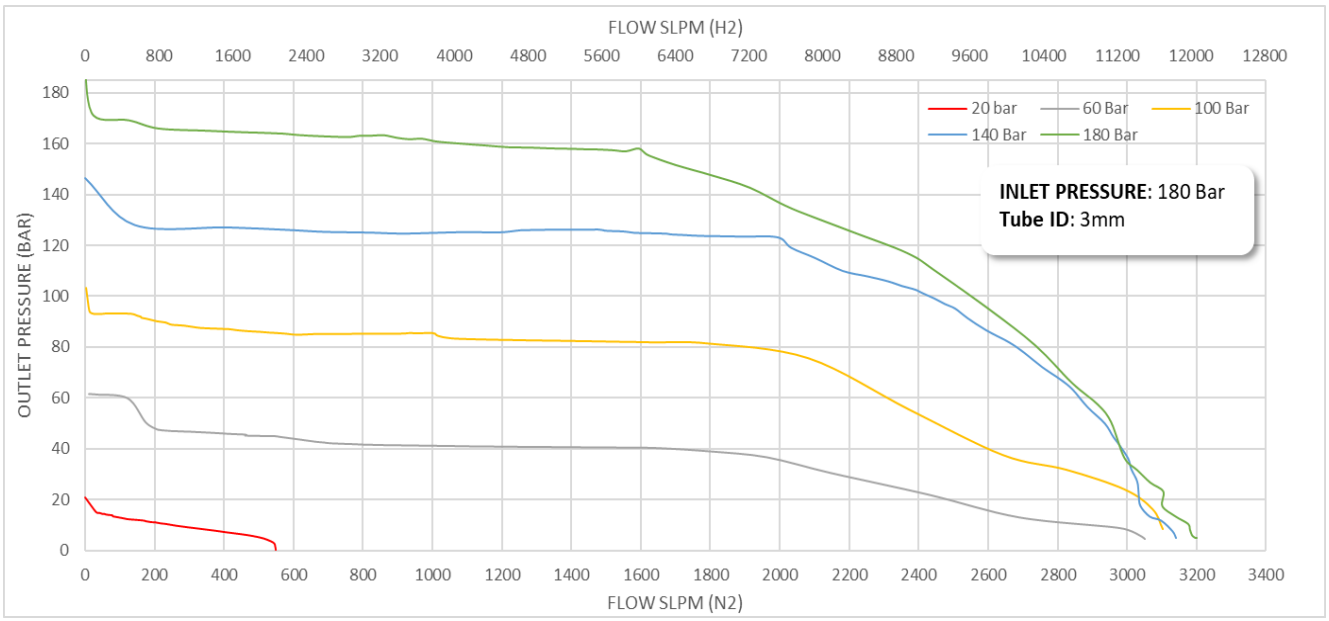
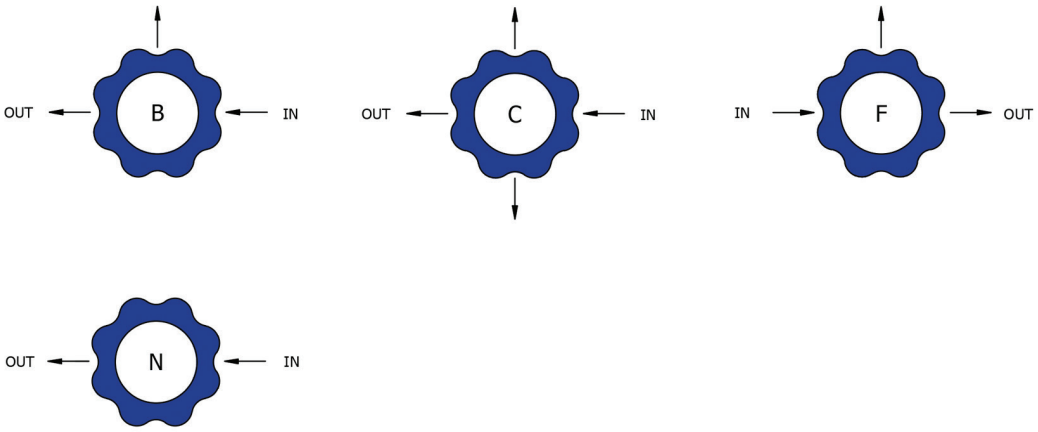
● Gas	○ Liquid	● Diaphragm	○ Piston	● Self-Venting	○ Non-Venting	Max Inlet: 1,034 bar (15,000 psi)	Max Outlet: 1,034 bar (15,000 psi)	Cv 0.5/1.0

FLOW CURVE



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:

RF1034 – 10 – Q – 1034A – V – 04H – N – NV – XXX

REGULATOR MODEL/SERIES

RF1034 – For Hydrogen Refuelling

CV VALUE

05 – 0.5
10 – 1.0

BODY MATERIAL**

Q – ASTM A638/A638M 660 Type 1 Stainless Steel
S – ASTM A479 316/316L Stainless Steel

CONTROL PRESSURE

50 – Up to 50 bar (725 psi)
100 – Up to 100 bar (1,450 psi)
150 – Up to 150 bar (2,175 psi)
200 – Up to 200 bar (2,900 psi)
414 – Up to 414 bar (6,000 psi)
500 – Up to 500 bar (7,250 psi)
690 – Up to 690 bar (10,000 psi)
1,034 – Up to 1,034 bar (15,000 psi)

LOADING MECHANISM

A – Pneumatically Actuated
E – Electrically Actuated
EL – Low-Speed Electrically Actuated
S – Spring-Loaded

MODIFICATIONS*

Contact the office for further information.

VENTING

NV – Non-Venting
SV – Self-Venting (Captured)

PORTING CONFIGURATION

N - No gauge ports
Refer to page 3 for porting options.

CONNECTION**

03A – 3/8” Medium Pressure (Cv 0.5 only)
03H – 3/8” High Pressure (Cv 0.5 only)
04A – 9/16” Medium Pressure
04H – 9/16” High Pressure

SEAT MATERIAL

A – Acetal-C (POM)
M – Polysulfone (PSU)
N – Polyamide Imide (PAI)
O – Tecapeek®
V – Tecasint® 2011
W – Vespel®

OPTIONAL EXTRAS

	PART NUMBER	DESCRIPTION
Service Kit	SRK-RF1034-05-Q-1034A-V...	FKM/FPM o-ring.

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 connections/materials may be available - please contact the office

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