PRESSURE TECH

Company Overview

www.pressure-tech.com

Welcome to Pressure Tech

Established in 2000, I am proud to say that Pressure Tech is a family business with customer service and quality at the heart of our operation. Equally, we pride ourselves on having the technical know-how and professionalism typically associated with larger corporate companies.

Based in the North-West UK, our facilities house the entire process from design, manufacturing and assembly through to sales, purchasing and accounts. The Pressure Tech name is now recognised globally for manufacturing high-quality pressure regulators, and we are supported by a worldwide network of Authorised Resellers.

Steve Yorke-Robinson
Managing Director of Pressure Tech

We passionately believe that our products and all-round service represent a market-leading offering, and here's why:

EXPANDING OUR EXPERIENCE

Our team of over 40 people includes a combination of long-term employees offering extensive product experience and understanding of the applications they have been used on, with the more recent addition of employees who have added specialist knowledge in areas such as strategic business management. It is this blend that continues to add strength and value to our core business of designing and manufacturing high-quality pressure regulators.

PARTNERING WITH CUSTOMERS

Whether it's offering general advice or help finding a specific solution to an application, our close-working internal infrastructure allows us to respond to questions promptly and effectively to allow our customers to make quick decisions with confidence. Not every system is the same and sometimes 'off-the-shelf' products may not be suitable for some applications. Our sales and design teams work closely with customers to ensure products are designed to meet their exact needs.

GLOBAL REACH

Our products are used worldwide with 70% being exported for use on critical high-pressure control systems such as wellhead control panels, gas analyser systems, hyperbaric diving systems and the latest hydrogen technology. We continually listen to customer feedback to ensure product realisation is achieved. Our products are supplied to an ever-increasing customer base ranging from family businesses like our own to blue chip multinationals, meaning we offer a personal touch combined with the capacity to fulfil larger projects.

In-House Capabilities...

QUALITY

As a company we have always understood the critical importance of maintaining quality throughout our business. We constantly aspire to provide products and services that not only meet, but exceed the requirements of our customers.

It is our long-term commitment to quality that has created a ‘quality culture’ here at Pressure Tech. When decisions are made, be it to the design of a product, the sourcing of raw materials, or the processes under which we operate, quality and the requirements of our customers are of primary consideration.

DESIGN

We take great pride in being able to design bespoke solutions to fulfil customer requirements. This in-house service is one of the many reasons why existing customers come back to us time and again, and why, off the back of recommendations, new customers approach Pressure Tech when an off-the-shelf product just won’t suffice.

MANUFACTURING

Our in-house machine shop is operated by an experienced team of machinists and is overseen by our Operations Manager. Regular investments in machinery ensure we have the capacity to maintain stock of ‘standard’ components for competitive lead times, and to provide the production flexibility to quickly respond to urgent customer requirements.

ASSEMBLY

Our in-house team of skilled assembly and testing engineers work closely with our design and manufacturing departments, whilst workload is strategically managed and scheduled by our Planning Manager using the latest shop-floor loading software. This strategic approach ensures customer orders are fulfilled on-time.

Product Range

ANALYSER & INSTR.

Our Analyser and Instrumentation range includes options such as gas cylinder regulators, two-stage regulators and ATEX certified (2014/34/EU) heated regulators.

HYDRAULIC

Our extensive range of piston-sensed hydraulic regulators feature precision machined sensing elements for control to 1,380 bar (20,000 psi).

LOW FLOW

Primarily for use on oxygen, carbon dioxide, natural gas, methane, ammonia, argon, nitrogen and helium. Combined sensor and spring options allow low torque adjustment.

MEDIUM FLOW

Primarily for gas service. Diaphragm sensed elements control up to 10 bar (145 psi) and piston-sensed elements covering up to 414 bar (6,000 psi). Ports 1/2” to 1”.

HIGH FLOW

Diaphragm and piston-sensed with port sizes from 1/2” to 3” using threaded or flanged connections. Pressure control available up to 600 bar (8,700 psi).

BACK PRESSURE

Covering port sizes from 1/8” to 2” and controlling pressures from 0.1 bar (2 psi) to 690 bar (10,000 psi) on gas or liquid applications. Accurate and repeatable shut-off.

DIVING

Cleaned and degreased within the guidelines of ASTM G93 for equipment used in oxygen-enriched enviroments, and on life support or hyperbaric diving applications.

HYDROGEN

For applications such as refuelling stations, vehicles, drones, forklifts, and electrolysers. This range includes products with EC79 and TPED approvals.

SUBSEA

Designed to operate at depths of up to 3,000m (10,000ft). Can use external seawater as a reference pressure, or can be sealed to operate at topside ambient pressures.

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MINI300
COMPACT

PISTON-SENSED | 316SS THREADED BONNET | OPTIONAL ADJUSTMENT METHODS | LIGHTWEIGHT & COMPACT

PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION
1/8”	0.06	Gas	210 bar (3,045 psi)	PCTFE	100 bar (1,450 psi)	Piston	Non
			300 bar (4,350 psi)	PEEK™			

LF310
LOW-FLOW

INCONEL® X750 DIAPHRAGM | 316SS THREADED BONNET | 40 MICRON INLET FILTER | SOLID DISK SEAT DESIGN

PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION
1/4”	0.06 0.15	Gas	50 bar (725 psi)	FEP	35 bar (510 psi)	Inconel® X750 Diaphragm	Non
			300 bar (4,350 psi)	PCTFE			
			414 bar (6,000 psi)	PEEK™			

LF240
LOW-FLOW

LARGE ELASTOMERIC DIAPHRAGM | LIGHTWEIGHT & COMPACT | LOW DECAYING PRESSURE EFFECT

PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION
1/4”	0.06	Gas	300 bar (4,350 psi)	PCTFE	10 bar (145 psi)	PTFE-Lined Elastomeric Diaphragm	Non
			414 bar (6,000 psi)	PEEK™			

TS310
TWO-STAGE

METAL-TO-METAL SEATING DIAPHRAGM | 0.04% DECAYING PRESSURE EFFECT | ‘INTERSTAGE’ RELIEF VALVE OPTION

PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENT OPTION
1/4”	0.06	Gas	300 bar (4,350 psi)	PCTFE	25 bar (360 psi)	Inconel® X750 Diaphragm	Non
			414 bar (6,000 psi)	PEEK™			

TS311
TWO-STAGE

PISTON-SENSED | 0.04% DECAYING PRESSURE EFFECT | 'INTERSTAGE' RELIEF VALVE OPTION | 40 MICRON INLET FILTER

PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENT OPTION
1/4”	0.06	Gas	300 bar (4,350 psi)	PCTFE	20 bar (290 psi)	Piston	Non
			414 bar (6,000 psi)	PEEK™			

CYL310
CYLINDER ASSEMBLY

CUSTOMISABLE TO SUIT APPLICATION | INCONEL® X750 DIAPHRAGM | SOLID DISK SEAT DESIGN | 40 MICRON INLET FILTER

PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION
1/4”	0.06	Gas	300 bar (4,350 psi)	PCTFE	35 bar (510 psi)	Inconel® X750 Diaphragm	Non
			414 bar (6,000 psi)	PEEK™			

CYL540
CYLINDER ASSEMBLY

COMPACT DESIGN | PISTON-SENSED | SELF OR NON-VENTING | 40 MICRON INLET FILTER

PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION
1/4”	0.1	Gas	550 bar (7,975 psi)	PEEK™	35 bar (510 psi)	Piston	Non or Self

ACS101
AUTO-CHANGEOVER

MEDICAL / LAB APPLICATIONS | OPTIONAL SECOND-STAGE REGULATOR | STANDALONE OR WALL-MOUNTABLE

PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION
1/4”	0.5	Gas	300 bar (4,350 psi)	PCTFE or PEEK™	20 bar (290 psi)	Piston	Non

ACS240
AUTO-CHANGEOVER

MEDICAL / LAB APPLICATIONS | ~8 BAR PRESSURE CHANGEOVER | OPTIONAL SECOND-STAGE REGULATOR | STANDALONE OR WALL-MOUNTABLE

PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION
1/4”	0.06	Gas	300 bar (4,350 psi)	PCTFE or PEEK™	10 bar (145 psi)	PTFE-Lined Elastomeric Diaphragm	Non

Analyser & Instrumentation Regulators

ACS310
AUTO-CHANGEOVER

MEDICAL / LAB APPLICATIONS | USER-FRIENDLY DESIGN | OPTIONAL SECOND-STAGE REGULATOR | STANDALONE OR WALL-MOUNTABLE

PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION
1/4”	0.06	Gas	300 bar (4,350 psi)	PCTFE or PEEK™	20 bar (290 psi)	Inconel® X750 Diaphragm	Non

ACU310
AUTO-CHANGEOVER

INCONEL® X750 DIAPHRAGM | USER-FRIENDLY DESIGN | SECOND-STAGE REGULATOR | 0.1% DECAYING PRESSURE EFFECT

PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION
1/4”	0.06	Gas	300 bar (4,350 psi)	PCTFE or PEEK™	20 bar (290 psi)	Inconel® X750 Diaphragm	Non

XHS410
ELECTRIC-HEATED

ATEX, IECEX & CSA CERTIFIED | REMOTE TEMPERATURE CONTROL AND READOUT | DIGITAL READOUT | 115V / 230V AC & 24V DC OPTIONS

PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION
1/4”	0.06	Gas	300 bar (4,350 psi)	PCTFE	35 bar (510 psi)	Inconel® X750 Diaphragm	NA
			414 bar (6,000 psi)	PEEK™			

XHS411
ELECTRIC-HEATED

ATEX, IECEX & CSA CERTIFIED | REMOTE TEMPERATURE CONTROL AND READOUT | DIGITAL READOUT | 115V / 230V AC & 24V DC OPTIONS

PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION
1/4”	0.06	Gas	300 bar (4,350 psi)	PCTFE	150 bar (2,175 psi)	Piston	NA
			414 bar (6,000 psi)	PEEK™			

XHR310
ELECTRIC-HEATED

2 X 100W HEATER CARTRIDGES | ATEX & IECEX CERTIFIED | INCONEL® X750 DIAPHRAGM | OPTIONAL CABLE SUPPLY ENTRY POINTS

PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION
1/4”	0.06	Gas or Liquid	414 bar (6,000 psi)	PEEK™	35 bar (500 psi)	Inconel® X750 Diaphragm	Non

XHR311
ELECTRIC-HEATED

2 X 100W HEATER CARTRIDGES | ATEX & IECEX CERTIFIED | PISTON-SENSED | OPTIONAL CABLE SUPPLY ENTRY POINTS

PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION
1/4”	0.06	Gas or Liquid	414 bar (6,000 psi)	PEEK™	150 bar (2,175 psi)	Piston	Non

XHR310
STEAM-HEATED

STEAM-HEATED DESIGN | 40 MICRON INLET FILTER | INCONEL® X750 DIAPHRAGM | SOLID DISK SEAT DESIGN

PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION
1/4”	0.06	Gas or Liquid	414 bar (6,000 psi)	PEEK™	35 bar (500 psi)	Inconel® X750 Diaphragm	Non

XHM410
HEATER MANIFOLD

ATEX, IECEX & CSA CERTIFIED | REMOTE TEMPERATURE CONTROL AND READOUT | DIGITAL READOUT | 115V / 230V AC & 24V DC OPTIONS

PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION
1/4”	NA	Gas or Liquid	300 bar (4,350 psi)	NA	NA	NA	NA

Hydraulic Regulators

LGC690 LOGIC-CONTROL

40 MICRON INLET FILTER | PISTON-SENSED | SEGREGATED CAPTURED VENT | EASY ACCESS TO SEAT CARTRDIGE

PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION
1/4”	0.3	Liquid	414 bar (6,000 psi)	PEEK™	20 bar (290 psi)	Piston	Self (captured)

MF414H MEDIUM-FLOW

PISTON-SENSED | BALANCED DESIGN | SEGREGATED CAPTURED VENT | HIGH FLOW COEFFICIENT

PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION
1/2” 3/4”	2.0	Liquid	414 bar (6,000 psi)	Ceramic	414 bar (6,000 psi)	Piston	Non or Self (captured)

HYD691 HYDRAULIC

COMPACT | CERAMIC SEAT | SEGREGATED CAPTURED VENT | MAIN VALVE CARTRIDGE DESIGN

PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION
1/4” 3/8”	0.06	Liquid	690 bar (10,000 psi)	Ceramic	690 bar (10,000 psi)	Piston	Non or Self (captured)

LF690 LOW-FLOW

CERAMIC SEAT | FULLY SUPPORTED MAIN VALVE | SEGREGATED CAPTURED VENT | EASY ACCESS TO SEAT CARTRIDGE

PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION
1/4” 3/8”	0.1 0.3	Liquid	690 bar (10,000 psi)	Ceramic	690 bar (10,000 psi)	Piston	Non or Self (captured)

DF1034 DUAL-FLOW

DUAL-FLOW DESIGN | BALANCED MAIN VALVE | PISTON SENSED | EASY ACCESS TO SEAT CARTRIDGE

PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION
9/16” MP	1.5 (primary) 0.06 (secondary)	Liquid	1,034 bar (15,000 psi)	Ceramic or Tecasint	1,034 bar (15,000 psi)	Piston	Self (captured)

LF691 LOW-FLOW	CERAMIC SEAT | FULLY SUPPORTED MAIN VALVE | SEGREGATED CAPTURED VENT | EASY ACCESS TO SEAT CARTRIDGE						
PORT SIZE	**CV**	**SERVICE**	**MAX INLET**	**SEAT**	**MAX OUTLET**	**SENSING ELEMENT**	**VENTING OPTION**
3/8”	0.05	Liquid	1,380 bar (20,000 psi)	Ceramic	1,380 bar (20,000 psi)	Piston	Non or Self (captured)

Low Flow Regulators

LF311
LOW-FLOW

PISTON-SENSED | 316SS THREADED BONNET | 40 MICRON INLET FILTER | SOLID DISK SEAT DESIGN

PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION
1/4” 3/8”	0.06	Gas	300 bar (4,350 psi)	PCTFE	180 bar (2,610 psi)	Piston	Non
			414 bar (6,000 psi)	PEEK™			

LF540
LOW-FLOW

COMPACT & ECONOMICAL | PISTON-SENSED | NON- OR SELF-VENTING | PRECISION-MACHINED SENSING ELEMENT

PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION
1/4” 3/8”	0.1	Gas or Liquid	690 bar (10,000 psi)	PEEK™	414 bar (6,000 psi)	Piston	Non or Self

LF792
LOW-FLOW

ENHANCED SEAT SUPPORT | PISTON-SENSED | SEGREGATED CAPTURED VENT | EASY ACCESS TO SEAT CARTRIDGE

PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION
1/4” 3/8”	0.1	Gas	1,034 bar (15,000 psi)	Tecasint®	1,034 bar (15,000 psi)	Piston	Non or Self (captured)

MF101 MEDIUM-FLOW

LARGE PRECISION-MACHINED SENSING ELEMENT | NON- OR SELF-VENTING | LIGHTWEIGHT & COMPACT

PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION
1/4”	0.5	Gas or Liquid	100 bar (1,450 psi) Unbalanced	PCTFE	35 bar (510 psi) Self-Vent or 40 bar (580 psi) Non-Vent	Piston	Non or Self
				PEEK™			
			300 bar (4,350 psi) Balanced	PCTFE			
			414 bar (6,000 psi) Balanced	PEEK™			

MF230 MEDIUM-FLOW

LARGE SENSITIVE ELASTOMERIC DIAPHRAGM | BALANCED DESIGN | LOW DECAYING PRESSURE EFFECT

PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION
1/2”	1.0	Gas or Liquid	50 bar (725 psi)	PTFE	10 bar (145 psi)	Diaphragm	Non
			230 bar (3,350 psi)	PCTFE or PEEK™			

MF231 MEDIUM-FLOW

LARGE SENSITIVE ELASTOMERIC DIAPHRAGM | BALANCED DESIGN | LOW DECAYING PRESSURE EFFECT

PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION
1/2”	1.0	Gas	35 bar (510 psi)	PTFE	100 bar (1,450 psi)	Piston	Non
			230 bar (3,350 psi)	PCTFE or PEEK™			

Medium-Flow Regulators

MF210
MEDIUM-FLOW

PTFE-LINED DIAPHRAGM | NO O-RINGS | RANGE OF END CONNECTORS | LARGE HANDWHEEL

PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION
1/2” 3/4” 1”	1.8	Gas	40 bar (580 psi)	PCTFE	10 bar (145 psi)	PTFE-Lined Elastomeric Diaphragm	Non

MF301
MEDIUM-FLOW

PISTON-SENSED | BALANCED DESIGN | LOW DECAYING PRESSURE EFFECT | EASY ACCESS TO SEAT CARTRIDGE

PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION
1/2” 3/4”	2.0	Gas or Liquid	300 bar (4,350 psi)	PCTFE or PEEK™	300 bar (4,350 psi)	Piston	Non or Self

MF400
MEDIUM-FLOW

BALANCED DESIGN | OPTIONAL CONNECTION TYPES | DIAPHRAGM-SENSED | HIGH FLOW COEFFICIENT

PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION
1/2” 3/4”	2.0	Gas or Liquid	400 bar (5,800 psi)	PCTFE or PEEK™	10 bar (145 psi)	Diaphragm	Non

MF401
MEDIUM-FLOW

BALANCED DESIGN | OPTIONAL CONNECTION TYPES | PISTON-SENSED | HIGH FLOW COEFFICIENT

PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION
1/2” 3/4”	2.0	Gas or Liquid	400 bar (5,800 psi)	PCTFE or PEEK™	400 bar (5,800 psi)	Piston	Non

MF414G
MEDIUM-FLOW

PISTON-SENSED | BALANCED DESIGN | SEGREGATED CAPTURED VENT | HIGH FLOW COEFFICIENT

PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION
1/2” 3/4”	2.0	Gas	414 bar (6,000 psi)	PEEK™	414 bar (6,000 psi)	Piston	Non or Self (captured)

HF300 HIGH-FLOW

BALANCED DESIGN | ELASTOMERIC DIAPHRAGM | HIGH FLOW COEFFICIENT | GAS OR LIQUID APPLICATIONS

PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION
1”	4.0	Gas Liquid	300 bar (4,350 psi)	PEEK™ Vespel®	10 bar (145 psi)	Elastomeric Diaphragm	Non

HF301 HIGH-FLOW

BALANCED DESIGN | PISTON-SENSED | HIGH FLOW COEFFICIENT | GAS OR LIQUID APPLICATIONS

PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION
1”	4.0	Gas Liquid	300 bar (4,350 psi)	PEEK™ Vespel®	300 bar (4,350 psi)	Piston	Non

HF250 HIGH-FLOW

BALANCED DESIGN | DIAPHRAGM-SENSED | HIGH FLOW COEFFICIENT | GAS OR LIQUID APPLICATIONS

PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENT OPTION
1” 1 1/2”	7.0	Gas Liquid	250 bar (3,625 psi)	PCTFE PEEK™	10 bar (145 psi)	Diaphragm	Non

HF251 HIGH-FLOW

BALANCED DESIGN | PISTON-SENSED | HIGH FLOW COEFFICIENT | GAS OR LIQUID APPLICATIONS

PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENT OPTION
1” 1 1/2”	7.0	Gas Liquid	250 bar (3,625 psi)	PCTFE PEEK™	200 bar (3,625 psi)	Piston	Non

HF600 HIGH-FLOW

BALANCED DESIGN | PISTON-SENSED | HIGH FLOW COEFFICIENT | GAS OR LIQUID APPLICATIONS

PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENT OPTION
1” 1 1/2”	7.0	Gas Liquid	600 bar (8,700 psi)	Vespel®	600 bar (8,700 psi)	Piston	Non

HF210 HIGH-FLOW	SPRING OR DOME-LOADED	DIAPHRAGM-SENSED	HIGH FLOW COEFFICIENT	GAS OR LIQUID APPLICATIONS			
PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION
2”	13.0	Gas Liquid	210 bar (3,045 psi)	PCTFE PEEK™	10 bar (145 psi)	Diaphragm	Non

HF211 HIGH-FLOW	PILOT-OPERATED AS STANDARD	PISTON-SENSED	HIGH FLOW COEFFICIENT	GAS OR LIQUID APPLICATIONS			
PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION
2”	13.0	Gas Liquid	210 bar (3,045 psi)	PCTFE PEEK™	200 bar (2,900 psi)	Piston	Non

BP010 BACK PRESSURE	ELASTOMERIC DIAPHRAGM	PTFE-LINED DIAPHRAGM	BOLTED BONNET	316SS THREADED BONNET		
PORT SIZE	CV	SERVICE	MAX RATING	SEAT	CONTROL RANGE	SENSING ELEMENT
1/4”	0.1	Gas	10 bar (145 psi)	PCTFE	5 bar (75 psi)	PTFE-Lined Elastomeric Diaphragm

BP300 BACK PRESSURE	INCONEL® X750 DIAPHRAGM	GAS OR LIQUID APPLICATIONS	LOW FLOW COEFFICIENT	LIGHTWEIGHT & COMPACT		
PORT SIZE	CV	SERVICE	MAX RATING	SEAT	CONTROL RANGE	SENSING ELEMENT
1/4”	0.1	Gas or Liquid	35 bar (510 psi)	FKM / FPM	20 bar (290 psi)	Inconel® X750 Diaphragm

BP301 BACK PRESSURE	PISTON-SENSED	GAS OR LIQUID APPLICATIONS	CHOICE OF LOW FLOW COEFFICIENTS	LIGHTWEIGHT & COMPACT		
PORT SIZE	CV	SERVICE	MAX RATING	SEAT	CONTROL RANGE	SENSING ELEMENT
1/4”	0.1	Gas	150 bar (2,175 psi)	PCTFE	150 bar (2,175 psi)	Piston
		Liquid		PCTFE or PEEK™		

BP-LF540 LOW-FLOW	PISTON-SENSED	GAS OR LIQUID APPLICATIONS	LOW FLOW COEFFICIENT	OPTIONAL AIR-ACTUATOR		
PORT SIZE	CV	SERVICE	MAX RATING	SEAT	CONTROL RANGE	SENSING ELEMENT
1/4”	0.1	Gas or Liquid	550 bar (7,795 psi)	PEEK™	414 bar (6,000 psi)	Piston

BP-LF690 LOW-FLOW	PISTON-SENSED	RANGE OF SEAT MATERIALS	LOW FLOW COEFFICIENT	OPTIONAL AIR-ACTUATOR		
PORT SIZE	CV	SERVICE	MAX RATING	SEAT	CONTROL RANGE	SENSING ELEMENT
1/4”	0.1	Gas	550 bar (7,975 psi)	PEEK™	414 bar (6,000 psi)	Piston
		Liquid		316SS		

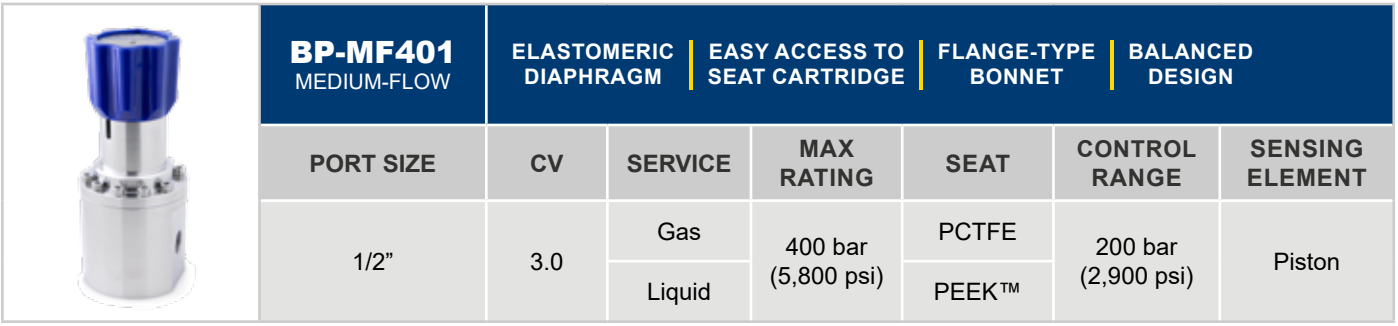
BP-LF691 LOW-FLOW	PISTON-SENSED	RANGE OF SEAT MATERIALS	LOW FLOW COEFFICIENT	OPTIONAL AIR-ACTUATOR		
PORT SIZE	CV	SERVICE	MAX RATING	SEAT	CONTROL RANGE	SENSING ELEMENT
1/4”	0.1	Gas	1,034 bar (15,000 psi)	PEEK™	900 bar (13,050 psi)	Piston
		Liquid		316SS		

BP-MF690 (05) MEDIUM-FLOW	PISTON-SENSED	PRECISION-MACHINED SENSING ELEMENT	OPTIONAL AIR-ACTUATOR	OPTIONAL FLANGED CONNECTION		
PORT SIZE	CV	SERVICE	MAX RATING	SEAT	CONTROL RANGE	SENSING ELEMENT
1/2”	0.5	Gas	550 bar (7,975 psi)	PEEK™	414 bar (6,000 psi)	Piston
		Liquid		Hastelloy		

BP-MF690 (15) MEDIUM-FLOW	PISTON-SENSED	CERAMIC SEATING	OPTIONAL AIR-ACTUATOR	FLANGED OPTION		
PORT SIZE	CV	SERVICE	MAX RATING	SEAT	CONTROL RANGE	SENSING ELEMENT
3/4”	1.5	Gas	690 bar (10,000 psi)	PEEK™	300 bar (4,350 psi)	Piston
		Liquid		Ceramic		

BP-MF691 (05) MEDIUM-FLOW	PISTON-SENSED	PRECISION-MACHINED SENSING ELEMENT	OPTIONAL AIR-ACTUATOR	OPTIONAL FLANGED CONNECTION		
PORT SIZE	CV	SERVICE	MAX RATING	SEAT	CONTROL RANGE	SENSING ELEMENT
1/2”	0.5	Liquid	690 bar (10,000 psi)	Hastelloy®	690 bar (10,000 psi)	Piston

BP-MF400 MEDIUM-FLOW	ELASTOMERIC DIAPHRAGM	EASY ACCESS TO SEAT CARTRIDGE	FLANGE-TYPE BONNET			
PORT SIZE	CV	SERVICE	MAX RATING	SEAT	CONTROL RANGE	SENSING ELEMENT
1/2”	3.0	Gas	10 bar (145 psi)	PCTFE	10 bar (145 psi)	Diaphragm
		Liquid		PEEK™		



BP-MF401 MEDIUM-FLOW	ELASTOMERIC DIAPHRAGM	EASY ACCESS TO SEAT CARTRIDGE	FLANGE-TYPE BONNET	BALANCED DESIGN			
PORT SIZE	CV	SERVICE	MAX RATING	SEAT	CONTROL RANGE	SENSING ELEMENT	
1/2”	3.0	Gas	400 bar (5,800 psi)	PCTFE	200 bar (2,900 psi)	Piston	
		Liquid		PEEK™			

LF310
LOW-FLOW

INCONEL® X750 DIAPHRAGM | 316SS THREADED BONNET | 40 MICRON INLET FILTER | SOLID DISK SEAT DESIGN

PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION
1/4”	0.06 0.15	Gas or Liquid	50 bar (725 psi)	FEP	35 bar (510 psi)	Inconel® X750 Diaphragm	Non
			300 bar (4,350 psi)	PCTFE			
			414 bar (6,000 psi)	PEEK™			

MF101D
MEDIUM-FLOW

LARGE PRECISION-MACHINED SENSING ELEMENT | NON- OR SELF-VENTING | LIGHTWEIGHT & COMPACT | ASTM G93 LEVEL C

PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION
1/4”	0.5	Gas	100 bar (1,450 psi) Unbalanced	PCTFE	35 bar (510 psi) Self-Vent or 40 bar (580 psi) Non-Vent	Piston	Non or Self
			300 bar (4,350 psi) Balanced				

LF540
LOW-FLOW

COMPACT & ECONOMICAL | PISTON-SENSED | NON- OR SELF-VENTING | PRECISION-MACHINED SENSING ELEMENT

PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION
1/4”	0.1	Gas or Liquid	690 bar (10,000 psi)	PEEK™	414 bar (6,000 psi)	Piston	Non or Self

MF301D
MEDIUM-FLOW

PISTON-SENSED | BALANCED DESIGN | LOW DECAYING PRESSURE EFFECT | EASY ACCESS TO SEAT CARTRIDGE | ASTM G93 LEVEL C

PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION
1/2”	2.0	Gas	300 bar (4,350 psi)	PCTFE	300 bar (4,350 psi)	Piston	Non or Self

MF300T MEDIUM-FLOW	PISTON-SENSED | TRACKING DESIGN MAINTAINS PRESSURE DIFFERENTIAL						
PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION
1/2”	2.0	Gas or Liquid	300 bar (4,350 psi)	PCTFE	25 bar (360 psi)	Piston	Self

BIBS100 NEGATIVE BIASED	LARGE SENSITIVE ELASTOMERIC DIAPHRAGM | EASY ACCESS TO SEAT CARTRIDGE | FINE ADJUSTMENT OF BIAS SPRING					
PORT SIZE	CV	SERVICE	MAX RATING	SEAT	CONTROL RANGE	SENSING ELEMENT
3/4”	2.0	Gas	50 bar (725 psi)	PCTFE	30 bar (435 psi)	Elastomeric Diaphragm

Hydrogen Regulators

LW351
H2 DRONES

LIGHTWEIGHT & COMPACT | PISTON-SENSED | 0.15% DECAYING PRESSURE EFFECT | WIDE RANGE OF CONNECTION OPTIONS

PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION
1/4”	0.06	Gas	350 bar (5,075 psi)	Devlon X100	3 bar (45 psi)	Piston	Non

TPED APPROVED

CV414-SC
CYLINDER VALVE

EASY DISCONNECT | CONTINUAL GAS SUPPLY | QUICK & EASY FILLING | LIGHTWEIGHT & COMPACT

PORT SIZE	CV	SERVICE	MAX INLET	SEAT	TYPE	APPROVAL
5/8” UNF M18	0.06	Gas	350 bar (5,075 psi)	PCTFE	Self-Closing	TPED
			414 bar (6,000 psi)	PEEK™		-

EC79 APPROVED

AUTO438
H2 BUSES & TRUCKS

EASY ACCESS TO SEAT CARTRIDGE | IN-LINE VENT PORT | BALANCED DESIGN | EC79 APPROVED

PORT SIZE	CV	SERVICE	MAX INLET	MAX OUTLET	SENSING ELEMENT	VENTING OPTION	APPROVAL
1/4”, 3/8”, 1/2” SAE 3 / 4 / 6 / 8	0.25	Gas	438 bar (6,350 psi)	20 bar (290 psi)	Piston	Non	EC79

A875
H2 VEHICLES

ELECTRONIC VALVES | INTEGRATED PRV | BALANCED MAIN VALVE | INTEGRATED FILTRATION

PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	HSL
SAE & MP options	0.35 or 0.5	Gas	875 bar (12,690 psi)	Acetal (POM)	30 bar (435 psi)	Piston	H35 or H70

H875
H2 VEHICLES

TWO-STAGE REGULATOR | LIGHTWEIGHT & COMPACT DESIGN | SUPERIOR PRESSURE CONTROL | DUAL STAGE FILTRATION

PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	HSL
NPT, SAE & MP options	0.5	Gas	875 bar (12,690 psi)	Vespel®	100 bar (1,450 psi)	Piston	H35 or H70

M875
H2 MOBILITY

MODULAR DESIGN | COMPACT DESIGN | BALANCED MAIN VALVE | INTEGRATED FILTRATION

PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	HSL
SAE & MP options	0.35 or 0.5	Gas	875 bar (12,690 psi)	Acetal (POM)	60 bar (900 psi)	Piston	H35 or H70

RF1034
H2 REFUELLING

HIGH FLOW | DESIGNED TO ISO 19880-3 | PISTON-SENSED | VARIOUS ACTUATOR OPTIONS

PORT SIZE	CV	SERVICE	SEAT	MAX INLET	MAX OUTLET	SENSING ELEMENT	VENTING OPTION
3/8” MP / HP 9/16” MP / HP	0.5 or 1.0	Gas	Tecasint® 2011	1,034 bar (15,000 psi)	1,034 bar (15,000 psi)	Piston	Non or Self (Captured)

LW438
H2 MATERIAL HANDLING

LIGHTWEIGHT DESIGN | PISTON-SENSED | BALANCED DESIGN

PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION
SAE-4	0.06	Gas	438 bar (6,350 psi)	Acetal (POM)	20 bar (290 psi)	Piston	Non

LW-TS414
H2 LIGHTWEIGHT MOBILITY

TWO-STAGE DESIGN | 0.04% DECAYING PRESSURE EFFECT | SOLID DISK SEAT DESIGN | LIGHTWEIGHT DESIGN

PORT SIZE	CV	SERVICE	MAX INLET	1ST STAGE SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION
1/4”	0.06	Gas	300 bar (4,350 psi)	PCTFE	1 bar (14.5 psi)	Piston	Non
			414 bar (6,000 psi)	PEEK™			

BP301
H2 ENERGY PRODUCTION

PISTON-SENSED | STABLE CONTROL | LIGHTWEIGHT & COMPACT | ADDITIONAL BACK PRESSURE REGULATORS AVAILABLE

PORT SIZE	CV	SERVICE	MAX RATING	SEAT	CONTROL RANGE	SENSING ELEMENT
1/4”	0.1	Gas or Liquid	150 bar (2,175 psi)	PCTFE	150 bar (2,175 psi)	Piston

Subsea Regulators

SS-COM301 SUBSEA	SUITABLE FOR DEEP WATERS	ANTI-TAMPER LOCKING CAP	MP35N SPRING	PRESSURE REDUCTION PLUS BACK PRESSURE CONTROL			
PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION
1/4”	0.5	Gas	300 bar (4,350 psi)	PCTFE	50 bar (725 psi)	Piston	Self

API 17F APPROVED

SS690 SUBSEA	SUITABLE FOR DEEP WATERS	ANTI-TAMPER LOCKING CAP	MP35N SPRING	OPTIONAL REMOTE OPERATION			
PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION
3/8”	0.1	Liquid	690 bar (10,000 psi)	Ceramic	690 bar (10,000 psi)	Piston	Non or Self

API 17F APPROVED

SS691 SUBSEA	SUITABLE FOR DEEP WATERS	ANTI-TAMPER LOCKING CAP	MP35N SPRING	OPTIONAL REMOTE OPERATION			
PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION
3/8”	0.1	Liquid	1,034 bar (15,000 psi)	Ceramic	690 bar (10,000 psi)	Piston	Non or Self

SS792 SUBSEA	SUITABLE FOR DEEP WATERS	ANTI-TAMPER LOCKING CAP	MP35N SPRING	OPTIONAL REMOTE OPERATION			
PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION
3/8”	0.3	Liquid	690 bar (10,000 psi)	Tecasint®	690 bar (10,000 psi)	Piston	Non or Self

SS414 SUBSEA	SUITABLE FOR DEEP WATERS	ANTI-TAMPER LOCKING CAP	MP35N SPRING	OPTIONAL REMOTE OPERATION			
PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION
3/8”	2.0	Gas	414 bar (6,000 psi)	PEEK™	250 bar (3,625 psi)	Piston	Non or Self
		Liquid		Ceramic			

SS-BP400 SUBSEA	SUITABLE FOR DEEP WATERS	ANTI-TAMPER LOCKING CAP	MP35N SPRING	OPTIONAL REMOTE OPERATION		
PORT SIZE	CV	SERVICE	MAX RATING	SEAT	SENSING ELEMENT	VENTING OPTION
1/2”	2.0	Gas	10 bar (145 psi)	PCTFE	Piston	Non

SS-BPLF690 SUBSEA	SUITABLE FOR DEEP WATERS	ANTI-TAMPER LOCKING CAP	MP35N SPRING	OPTIONAL REMOTE OPERATION		
PORT SIZE	CV	SERVICE	MAX RATING	SEAT	SENSING ELEMENT	VENTING OPTION
9/16”	0.1	Liquid	550 bar (7,975 psi)	Ceramic	Piston	Non

SS231 SUBSEA	SUITABLE FOR DEEP WATERS	ANTI-TAMPER LOCKING CAP	MP35N SPRING	OPTIONAL REMOTE OPERATION			
PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION
3/4”	1.0	Gas	230 bar (3,335 psi)	PCTFE	35 bar (510 psi)	Piston	Non

ELECTRIC ACTUATOR FOR REMOTE CONTROL

For applications that are difficult to obtain access to, such as those in subsea environments, we also offer an optional compact electric actuator for remote regulator control.

Capable of operating at depths of up to 3,000m or 10,000ft, and at temperatures ranging from -20°C to 65°C (-4°F to 149°F), our remote solution features a fully closed loop servo motion system for precision control.

ASK FOR DETAILS

AVC/ AVO690 ACTUATED VALVE	HIGH FLOW	FAIL SAFE OPERATION	SOLENOID VALVE OPTION	LOW ACTUATION PRESSURE		
PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	FAIL SAFE OPERATION
1/4”	0.8	Gas or Liquid	690 bar (10,000 psi)	PEEK™	690 bar (10,000 psi)	Normally Open or Closed

AVC/ AVO1034 ACTUATED VALVE	HIGH FLOW	FAIL SAFE OPERATION	SOLENOID VALVE OPTION	LOW ACTUATION PRESSURE		
PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	FAIL SAFE OPERATION
1/4”	0.8	Gas or Liquid	1,034 bar (15,000 psi)	PEEK™	1,034 bar (15,000 psi)	Normally Open or Closed

Bolted Flanges...

In addition to NPT, BSPP and medium pressure fittings, we also offer flanged connections on our full range of Pressure Tech regulators. Flanges offer easy maintenance, repair and inspection, and are typically used on Chemical Injection and Produced Water Systems.

Traditionally our flanged connections have been supplied welded, but this is a time consuming process. Every order including a welded flange required a full design overview to ensure the correct weld ends were selected for each application.

Our Engineering team worked to provide an alternative solution. Our bolted flange concept is based on three standard modular designs to cover up to class 4500, and created to accommodate any of our pressure regulators. These are:

RANGE	CLASSES			PRESSURE RATING
Up to Class 600	150	300	600	Up to 99.3 bar
Up to Class 2500	900	1500	2500	Up to 413.7 bar
Up to Class 4500	4500	-	-	Up to 744.6 bar

MODULAR DESIGN

Our bolted flange concept is based on three standard modular designs to cover up to class 4500.

This allows us to offer bolted flange connections onto any pressure regulator within our product range.

STANDARDS

The bolted design for flange connections conforms to a range of standards including:

- ASME 16.5
- API
- DIN
- Grayloc

TIME SAVING

Time savings include:

- No requirement for subcontract welding
- Only need to programme three body set-ups, reducing machine set-up times
- Straightforward assembly

Get in Touch...

To make it as convenient as possible to make an enquiry or place an order, there are 3 different options to choose from:

DIRECT

Should you need any assistance, whether this is relating to a new enquiry, existing order or technical assistance, our Pressure Tech sales team will gladly assist. They are available Monday to Thursday from 08:30 to 17:00, and Friday from 08:30 to 13:00.

+44 (0)1457 899 307
sales@pressure-tech.com

AUTHORISED RESELLERS

We understand that it is sometimes more convenient to work with a local contact. To support our customers across the globe, we have a knowledgeable network of Pressure Tech 'Authorised Resellers'.

Please visit the Pressure Tech website and navigate to our 'Authorised Resellers' page to find the contact details of your nearest Pressure Tech reseller.

www.pressure-tech.com

ONLINE

If you would like to request a quote online, please visit the Pressure Tech website and submit a quote request form. Our sales team will reply as soon as possible.

www.pressure-tech.com

Cv Formulae...

The Cv or flow capacity of a regulator is the maximum flow capability of a regulator (i.e. when the regulator is fully open) under a specific set of conditions. The Cv calculation varies based on the media used in your application.

Please refer to the relevant formula below to calculate the Cv for your application:

For Liquids (e.g. Water, Oil etc)

FORMULA	KEY	NOTES
$C_v = Q\sqrt{\frac{S}{\Delta P}}$	***Cv:*** Valve flow coefficient (US GPM with P=1 psi) ***Q:*** Fluid flow (US GPM) ***S:*** Specific gravity of fluid ***ΔP:*** P1 - P2 at maximum flow (psi)	Specific gravity correction is neglible for water below 93°C (200°F) - use S=1.0. Use actual specific gravity of other liquids at actual flow temperature.
$C_v = K_1 Q\sqrt{\frac{S}{\Delta P}}$	***Cv:*** Valve flow coefficient (US GPM with P=1 psi) ***K1:*** Viscosity correction factor for fluids ***Q:*** Fluid flow (US GPM) ***S:*** Specific gravity of fluid ***ΔP:*** P1 - P2 at maximum flow (psi)	Use this formula for fluids with viscosity correction factor. Use actual specific gravity of other liquids at actual flow temperature.

For Gases (e.g. Air, Natural Gas, Propane, etc)

FORMULA	KEY	NOTES
$C_v = \frac{Qa\sqrt{G(T+460}}{1360\sqrt{\Delta P(P_2)}}$	***Cv:*** Valve flow coefficient (US GPM with P=1 psi) ***Qa:*** Air or gas flow (SCFH) at 14.7 psi and 60°F ***G:*** Specific gravity of gas relative to air at 14.7 psi and 60°F ***T:*** Flow air or gas temperature (°F) ***ΔP:*** P1 - P2 at maximum flow (psi) ***P2:*** Outlet pressure at maximum flow (psi abs.)	Use this formula when P2 is *greater than* 50% of P1.
$C_v = \frac{Qa\sqrt{G(T+460}}{660\ P_1}$	***Cv:*** Valve flow coefficient (US GPM with P=1 psi) ***Qa:*** Air or gas flow (SCFH) at 14.7 psi and 60°F ***G:*** Specific gravity of gas relative to air at 14.7 psi and 60°F ***T:*** Flow air or gas temperature (°F) ***P1:*** Inlet pressure at maximum flow (psi abs.)	Use this formula when P2 is *less than* or equal to 50% of P1.

Information Required...

Should you need assistance with product selection, please provide the following information about your application:

01	Inlet Pressure	06	Temperature
02	Outlet Pressure	07	Non-Venting or Self-Venting
03	Required Accuracy	08	Connection Type and Size
04	Cv or Flow Rate	09	Porting Configuration
05	Media	10	Materials of Construction

Please note:
Pressure Tech supports with product selection recommendations only - it is the users responsibility to ensure the product is suitable for their specific application requirements.

Frequently Asked Questions...

What is your VAT number?
GB 776 740 883.

How do I check my order status?
Please send an email to expediting@pressure-tech.com with your order details. You will then receive an update on the current status of your order.

How do I find my nearest Authorised Reseller?
Please visit the 'Contact' section of our website, navigate to the 'Authorised Resellers' page and then click on the world map to select your region. You will see the cotact details of all Authorised Resellers within that region.

How do I apply for a credit account?
Please visit the 'Customer Resources' section of our website, download and complete our 'Trade Credit Account' application form and then email to accounts@pressure-tech.com.

What currencies do you accept?
We accept GBP (£), EUR (€), CAN ($) and USD ($).

PRESSURE TECH

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DESIGNED, MANUFACTURED AND BUILT IN THE UK