



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 30 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 fuel cell 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.

ANALYSER & INSTRUMENTATION



Typically incorporating Inconel® X750 diaphragm-sensed elements to provide strength and flexibility, our Analyser and Instrumentation range includes options from gas cylinder regulators to ATEX certified (2014/34/EU) heated regulators.

HIGH PRESSURE



Piston-sensed high pressure regulators, typically with ceramic seating. These include our hydraulic range with precision machined and fully supported sensor elements to cover pressure ranges up to 1,034 bar (15,000 psi). Port sizes from 1/8" to 3/8".

MEDIUM-FLOW



Primarily for gas service with diaphragm-sensed elements to 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 210 bar (3,045 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



Our brass regulators are cleaned and degreased within the guidelines of ASTM G93 for equipment used in oxygen-enriched environments, and intended for use on critical life support or hyperbaric diving applications.

HYDROGEN



Back pressure and forward reducing regulators for applications such as drones, forklifts, refuelling stations, buses/trucks and electrolyzers. This range includes products with EC79 and TPED approvals.

SUBSEA



Designed to operate at depths of up to 3,000m (10,000ft), our subsea pressure regulators can either use external seawater pressure as a reference pressure, or, they can be sealed to operate at topside ambient pressure conditions.

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ANALYSER & INSTRUMENTATION

MINI300, LF310, LF240, TS310, TS311, CYL310, CYL540, ACS310, ACU310, XHS310, XHS311, XHR310, XHR311, XHR310 (STEAM) and XHM300.

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HIGH PRESSURE: GAS

LF311, LF540 and LF792.

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HIGH PRESSURE: LIQUID

LGC690, HYD690, HYD691, LF690, LF691 and MF414H.

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MEDIUM-FLOW

MF101, MF230, MF231, MF210, MF301, MF400, MF401 and MF414G.

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HIGH-FLOW

HF300, HF301, HF250, HF251, HF210 and HF211.

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BACK PRESSURE

BP010, BP300, BP301, BP-LF540, BP-LF690, BP-LF691, BP-MF690 (05), BP-MF690 (15), BP-MF400 and BP-MF401.

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DIVING

LF310, MF101D, LF540, MF301D, MF300T and BIBS100.

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HYDROGEN

LW351, CV414-SC, AUTO438, RF1034, LW438, BP301 and LW-TS414.

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SUBSEA

SS-COM301, SS690, SS691, SS414, SS-BP400, SS231 and Electric Actuator.

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BOLTED FLANGE REGULATORS


The Pressure Tech solution - available on all regulators.


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ORDERING


How to Order, Cv Formulae, What Information We Require and Notes Pages.


	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 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™				


	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	



	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



 	XHS310 ELECTRIC-HEATED	100W HEATER CARTRIDGE	SIDE-ENTRY OR IN-LINE	ATEX & IECEx CERTIFIED	INCONEL® X750 DIAPHRAGM			
	PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION
	1/4"	0.06	Gas	300 bar (4,350 psi) 414 bar (6,000 psi)	PCTFE PEEK™	35 bar (510 psi)	Inconel® X750 Diaphragm	Non

 	XHS311 ELECTRIC-HEATED	100W HEATER CARTRIDGE	SIDE-ENTRY OR IN-LINE	ATEX & IECEx APPROVED	PISTON- SENSED			
	PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION
	1/4"	0.06	Gas	300 bar (4,350 psi) 414 bar (6,000 psi)	PCTFE PEEK™	150 bar (2,175 psi)	Piston	Non

 	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

 	XHM300 HEATER MANIFOLD	ATEX & IECEx CERTIFIED	ALTERNATIVE MATERIALS AVAILABLE	COMPACT DESIGN	115V OR 230V POWER SUPPLY			
	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

	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 or Liquid	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)


	LGC690 LOGIC-CONTROL							
	40 MICRON INLET FILTER		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"	0.3	Liquid	414 bar (6,000 psi)	PEEK™	20 bar (290 psi)	Piston		Self (captured)


	HYD690 HYDRAULIC							
	COMPACT & ECONOMICAL		SEGREGATED CAPTURED VENT		MAIN VALVE CARTRIDGE DESIGN			
	PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION
-	0.06	Liquid	690 bar (10,000 psi)	Tecasint®	690 bar (10,000 psi)	Piston		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)


	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)

	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)

	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	Piston	Non or Self
				300 bar (4,350 psi) Balanced	PCTFE			
				414 bar (6,000 psi) Balanced	PEEK™	40 bar (580 psi) Non-Vent		

	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) 230 bar (3,350 psi)	PTFE PCTFE or PEEK™	10 bar (145 psi)	Diaphragm	Non

	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) 230 bar (3,350 psi)	PTFE PCTFE or PEEK™	100 bar (1,450 psi)	Piston	Non

	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


	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	210 bar (3,045 psi)	PCTFE	10 bar (145 psi)	Diaphragm	Non
			Liquid		PEEK™			


	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	210 bar (3,045 psi)	PCTFE	200 bar (2,900 psi)	Piston	Non
			Liquid		PEEK™			


	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 AIR-ACTUATED OPTION				
	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 AIR-ACTUATED OPTION				
	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 AIR-ACTUATED OPTION					
	PORT SIZE	CV	SERVICE	MAX RATING	SEAT	CONTROL RANGE	SENSING ELEMENT
	1/4"	0.1	Gas Liquid	1,034 bar (15,000 psi)	PEEK™ 316SS	900 bar (13,050 psi)	Piston


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


	BP-MF690 (15) MEDIUM-FLOW	PISTON-SENSED CERAMIC SEATING AIR-ACTUATED OPTION FLANGED OPTION					
	PORT SIZE	CV	SERVICE	MAX RATING	SEAT	CONTROL RANGE	SENSING ELEMENT
	3/4"	1.5	Gas Liquid	690 bar (10,000 psi)	PEEK™ Ceramic	300 bar (4,350 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 Liquid	10 bar (145 psi)	PCTFE PEEK™	10 bar (145 psi)	Diaphragm


	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 Liquid	400 bar (5,800 psi)	PCTFE PEEK™	200 bar (2,900 psi)	Piston


	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	Piston	Non or Self
				300 bar (4,350 psi) Balanced		40 bar (580 psi) Non-Vent		

	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	


	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
	1/8"	0.06	Hydrogen	350 bar (5,075 psi)	PCTFE	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	APPROVAL	
	5/8" M18	0.06	Hydrogen	350 bar (5,075 psi)	PCTFE	TPED	


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	Hydrogen	438 bar (6,350 psi)	20 bar (290 psi)	Piston	Non	EC79

	RF1034 H2 REFUELLING		HIGH FLOW	DESIGNED TO ISO 19880-3	PISTON-SENSED	OPTIONAL AUTOMATED CONTROL		
	PORT SIZE	CV	SERVICE	WEIGHT	MAX INLET	MAX OUTLET	SENSING ELEMENT	VENTING OPTION
	3/8" HP	0.33	Hydrogen	7.2kg (incl. actuator)	1,034 bar (15,000 psi)	1,034 bar (15,000 psi)	Piston	Non or Self (Captured)
9/16" HP	0.5	10.5kg (incl. actuator)						


	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	Hydrogen	438 bar (6,350 psi)	PEEK™	20 bar (190 psi)	Piston	Non


	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	Hydrogen	150 bar (2,175 psi)	PCTFE	150 bar (2,175 psi)	Piston


	LW-TS414 H2 TWO-STAGE		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	Hydrogen	300 bar (4,350 psi)	PCTFE	1 bar (14.5 psi)	Piston	Non		
414 bar (6,000 psi)				PEEK™						


	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 or Liquid	300 bar (4,350 psi)	PCTFE	50 bar (725 psi)	Piston	Self





	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


	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	Liquid	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	Liquid	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

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 view pricing or order online, please visit the Pressure Tech website and register for an online account. Once approved, you will then be able to access pricing information and place orders 24/7, 7 days a week.

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 negligible 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
$C_v = \frac{Q_a \sqrt{G(T + 460)}}{1360 \sqrt{\Delta P (P_2)}}$	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 <i>greater than</i> 50% of P1.
$C_v = \frac{Q_a \sqrt{G(T + 460)}}{660 P_1}$	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 <i>less than</i> 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 contact the Pressure Tech sales team on +44 (0)1457 899 307 - they will be able to advise you on the current status of your order.

Can I view prices online?
You will require an online account to view pricing on our website. Please visit www.pressure-tech.com and then click 'Login / Register' to begin your application. Once approved, you will receive an email notification.

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 currently accept GBP (£), EUR (€) and USD (\$).

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.



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