



PRESSURE TECH

Company Overview



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.

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, XHS410, XHS311, XHR310, XHR311, XHR310 (STEAM), XHM300 and XHM410.

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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, DF1034, 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, H875, RF1034, LW438, LW-TS414, BP301 and AVO/AVC690.

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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) 300 bar (4,350 psi)	PCTFE PEEK™	100 bar (1,450 psi)	Piston	Non

	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) 300 bar (4,350 psi) 414 bar (6,000 psi)	FEP PCTFE PEEK™	35 bar (510 psi)	Inconel® X750 Diaphragm	Non

	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) 414 bar (6,000 psi)	PCTFE PEEK™	10 bar (145 psi)	PTFE-Lined Elastomeric Diaphragm	Non

	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) 414 bar (6,000 psi)	PCTFE PEEK™	25 bar (360 psi)	Inconel® X750 Diaphragm	Non

	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) 414 bar (6,000 psi)	PCTFE PEEK™	20 bar (290 psi)	Piston	Non

	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) 414 bar (6,000 psi)	PCTFE PEEK™	35 bar (510 psi)	Inconel® X750 Diaphragm	Non

	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 & IECX 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)	PCTFE	35 bar (510 psi)	Inconel® X750 Diaphragm	Non	
			414 bar (6,000 psi)	PEEK™				

	XHS410 ELECTRIC-HEATED							
	ATEX, IECX & 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	N/A	
			414 bar (6,000 psi)	PEEK™				

	XHS311 ELECTRIC-HEATED							
	100W HEATER CARTRIDGE		SIDE-ENTRY OR IN-LINE		ATEX & IECX 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)	PCTFE	150 bar (2,175 psi)	Piston	Non	
			414 bar (6,000 psi)	PEEK™				


	XHR310 ELECTRIC-HEATED							
	2 X 100W HEATER CARTRIDGES		ATEX & IECX 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 & IECX 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 & IECX 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	


	XHM410 HEATER MANIFOLD							
	ATEX, IECX & 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	


	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) 414 bar (6,000 psi)	PCTFE PEEK™	180 bar (2,610 psi)	Piston	Non


	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	PEEK™				
			414 bar (6,000 psi) Balanced	PCTFE				
				or				
				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)	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™				


	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
1/4" 3/8"	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)	


	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 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 Liquid	150 bar (2,175 psi)	PCTFE PCTFE or PEEK™	150 bar (2,175 psi)	Piston	


	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 Liquid	550 bar (7,795 psi)	PEEK™ 316SS	414 bar (6,000 psi)	Piston	


	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 or	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
	1/4" NPT	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

	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	VENTING OPTION
	1/4" NPT 3/8" MP SAE 4, SAE 6	0.5	Gas	875 bar (12,690 psi)	Vespel®	100 bar (1,450 psi)	Piston	Non

	RF1034 H2 REFUELLING	HIGH FLOW	DESIGNED TO ISO 19880-3	PISTON-SENSED	VARIOUS ACTUATOR OPTIONS			
	PORT SIZE	CV	SERVICE	WEIGHT	MAX INLET	MAX OUTLET	SENSING ELEMENT	VENTING OPTION
	3/8" MP / HP 9/16" MP / HP	0.5 or 1.0	Gas	11.4kg (pneumatically actuated version)	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 or Liquid	438 bar (6,350 psi)	Devlon X100	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

	AVO/AVC690 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" NPT	0.8	Gas or Liquid	690 bar (10,000 psi)	PEEK™	690 bar (10,000 psi)	Normally Open or Closed

	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

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

	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 Liquid	414 bar (6,000 psi)	PEEK™ Ceramic	250 bar (3,625 psi)	Piston	Non or Self

	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 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 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 and any additional information you may wish to know.

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

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APR 2024



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