



**PRESSURE TECH**

## Company Overview



[www.pressure-tech.com](http://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.

# Product Range

## 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 (94/9/EC) 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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## **ORDERING**


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


# Analyser & Instrumentation Regulators


	<b>MINI300</b> 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™			


	<b>LF310</b> LOW-FLOW							
	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™			


	<b>LF240</b> LOW-FLOW							
	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™			

	<b>TS310</b> TWO-STAGE							
	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™			

	<b>TS311</b> 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™				



	<div><b>CYL540</b> CYLINDER ASSEMBLY</div> <div>COMPACT DESIGN   PISTON-SENSED   SELF OR NON-VENTING   40 MICRON INLET FILTER</div>							
	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



	<div><div><b>ACS310</b> AUTO-CHANGEOVER</div><div><div>MEDICAL / LAB APPLICATIONS</div><div>USER-FRIENDLY DESIGN</div><div>OPTIONAL SECOND-STAGE REGULATOR</div><div>STANDALONE OR WALL-MOUNTABLE</div></div></div>							
	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





# Analyser & Instrumentation Regulators




	<b>ACU310</b> 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


 	<b>XHS310</b> 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)	PCTFE	35 bar (510 psi)	Inconel® X750 Diaphragm	Non
				414 bar (6,000 psi)	PEEK™			




 	<b>XHS311</b> 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)	PCTFE	150 bar (2,175 psi)	Piston	Non
				414 bar (6,000 psi)	PEEK™			

 	<b>XHR310</b> 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





 <div>   </div>	<b>XHR311</b> 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


	<b>XHR310</b> 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


 <div>   </div>	<b>XHM300</b> 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


## High-Pressure Regulators: Gas


	<b>LF311</b> LOW-FLOW	<b>PISTON-SENSED</b>   <b>316SS THREADED BONNET</b>   <b>40 MICRON INLET FILTER</b>   <b>SOLID DISK SEAT DESIGN</b>						
	<b>PORT SIZE</b>	<b>CV</b>	<b>SERVICE</b>	<b>MAX INLET</b>	<b>SEAT</b>	<b>MAX OUTLET</b>	<b>SENSING ELEMENT</b>	<b>VENTING OPTION</b>
	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


	<b>LF540</b> LOW-FLOW	<b>COMPACT &amp; ECONOMICAL</b>   <b>PISTON-SENSED</b>   <b>NON- OR SELF-VENTING</b>   <b>PRECISION-MACHINED SENSING ELEMENT</b>						
	<b>PORT SIZE</b>	<b>CV</b>	<b>SERVICE</b>	<b>MAX INLET</b>	<b>SEAT</b>	<b>MAX OUTLET</b>	<b>SENSING ELEMENT</b>	<b>VENTING OPTION</b>
	1/4" 3/8"	0.1	Gas or Liquid	690 bar (10,000 psi)	PEEK™	414 bar (6,000 psi)	Piston	Non or Self


	<b>LF792</b> LOW-FLOW	<b>ENHANCED SEAT SUPPORT</b>   <b>PISTON-SENSED</b>   <b>SEGREGATED CAPTURED VENT</b>   <b>EASY ACCESS TO SEAT CARTRIDGE</b>						
	<b>PORT SIZE</b>	<b>CV</b>	<b>SERVICE</b>	<b>MAX INLET</b>	<b>SEAT</b>	<b>MAX OUTLET</b>	<b>SENSING ELEMENT</b>	<b>VENTING OPTION</b>
	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)

	<b>LGC690</b> 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)


	<b>HYD690</b> 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)

	<b>HYD691</b> 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)


	<b>LF690</b> 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)


	<b>LF691</b> 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)


# High Pressure Regulators: Liquid

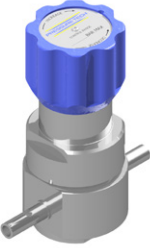
	<div><div>MF414H</div><div>MEDIUM-FLOW</div></div> <div>PISTON-SENSED   BALANCED DESIGN   SEGREGATED CAPTURED VENT   HIGH FLOW COEFFICIENT</div>							
	PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION
	1/2" 3/4"	2.0	Liquid	414 bar (6,000 psi)	Ceramic	414 bar (6,000 psi)	Piston	Non or Self (captured)




	<b>MF101</b> 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		


	<b>MF230</b> 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™			


	<b>MF231</b> 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™			


	<b>MF210</b> 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


## Medium-Flow Regulators


	<b>MF301</b> MEDIUM-FLOW	<b>PISTON-SENSED</b>   <b>BALANCED DESIGN</b>   <b>LOW DECAYING PRESSURE EFFECT</b>   <b>EASY ACCESS TO SEAT CARTRIDGE</b>						
	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


	<b>MF400</b> MEDIUM-FLOW	<b>BALANCED DESIGN</b>   <b>OPTIONAL CONNECTION TYPES</b>   <b>DIAPHRAGM-SENSED</b>   <b>HIGH FLOW COEFFICIENT</b>						
	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


	<b>MF401</b> MEDIUM-FLOW	<b>BALANCED DESIGN</b>   <b>OPTIONAL CONNECTION TYPES</b>   <b>PISTON-SENSED</b>   <b>HIGH FLOW COEFFICIENT</b>						
	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

	<b>MF414G</b> MEDIUM-FLOW	<b>PISTON-SENSED</b>   <b>BALANCED DESIGN</b>   <b>SEGREGATED CAPTURED VENT</b>   <b>HIGH FLOW COEFFICIENT</b>						
	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)

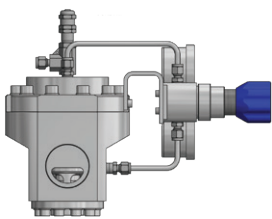
	HF300 HIGH-FLOW		BALANCED DESIGN   ELASTOMERIC DIAPHRAGM   HIGH FLOW COEFFICIENT   GAS OR LIQUID APPLICATIONS					
	PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION
	1"	4.0	Gas	300 bar (4,350 psi)	PEEK™	10 bar (145 psi)	Elastomeric Diaphragm	Non
Liquid			Vespe®					

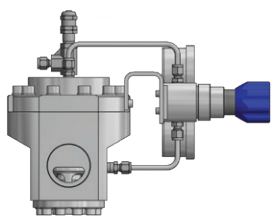
	HF301 HIGH-FLOW							
	BALANCED DESIGN   PISTON-SENSED   HIGH FLOW COEFFICIENT   GAS OR LIQUID APPLICATIONS							
	PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION
1"	4.0	Gas	300 bar (4,350 psi)	PEEK™	300 bar (4,350 psi)	Piston	Non	
		Liquid		Vespe®				

	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	250 bar (3,625 psi)	PCTFE	10 bar (145 psi)	Diaphragm	Non				
Liquid			PEEK™									


	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	250 bar (3,625 psi)	PCTFE	200 bar (3,625 psi)	Piston	Non	
		Liquid		PEEK™				


# High-Flow Regulators


	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™														




	<b>BP010</b> 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


	<b>BP300</b> 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


	<b>BP301</b> 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


	<b>BP-LF540</b> 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 (7,995 psi)	PEEK™	414 bar (6,000 psi)	Piston


	<b>BP-LF690</b> 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 (7,975 psi)	PEEK™ 316SS	414 bar (6,000 psi)	Piston


## Back Pressure Regulators

	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	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		AIR-ACTUATED OPTION		FLANGED OPTION	
	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						


	<b>BP-MF690 (15)</b> 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	690 bar (10,000 psi)	PEEK™	300 bar (4,350 psi)	Piston
			Liquid		Ceramic		


	<b>BP-MF400</b> 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™				


	<b>BP-MF401</b> 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

## Diving Regulators


	<b>LF310</b> 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™			


	<b>MF101D</b> 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		

	<b>LF540</b> 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


	<b>MF301D</b> 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




	<b>MF300T</b> MEDIUM-FLOW	<b>PISTON-SENSED</b>   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

	<b>BIBS100</b> NEGATIVE BIASED	<b>LARGE SENSITIVE ELASTOMERIC DIAPHRAGM</b>   <b>EASY ACCESS TO SEAT CARTRIDGE</b>   <b>FINE ADJUSTMENT OF BIAS SPRING</b>						
	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


	<b>LW351</b> 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





	<b>CV414-SC</b> 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		
				414 bar (6,000 psi)	PEEK™	-		




	<b>AUTO438</b> 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	0.5	Hydrogen	438 bar (6,350 psi)	20 bar (290 psi)	Piston	Non	EC79


	<b>RF1034</b> 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)				


	<b>LW438</b> 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


	<b>BP301</b> 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	


	<b>LW-TS414</b> 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™			


# Subsea Regulators

	<b>SS-COM301</b> 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


	<b>SS690</b> 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

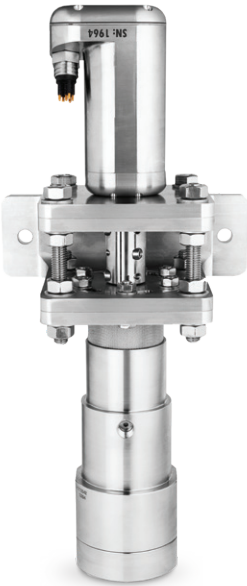
	<b>SS691</b> SUBSEA							
	SUITABLE FOR DEEP WATERS		ANTI-TAMPER LOCKING CAP		MP35N SPRING		OPTIONAL REMOTE OPERATION	
	PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION
	3/8"	0.1	Liquid	1,034 bar (15,000 psi)	Ceramic	690 bar (10,000 psi)	Piston	Non or Self

	<b>SS414</b> 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	
	PORT SIZE	CV	SERVICE	MAX RATING	SEAT	SENSING ELEMENT	VENTING OPTION							
	1/2"	2.0	Liquid	10 bar (145 psi)	PCTFE	Piston	Non							



	<b>SS231</b> 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

## Ordering

# 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 Friday from 08:30 to 17:00.

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

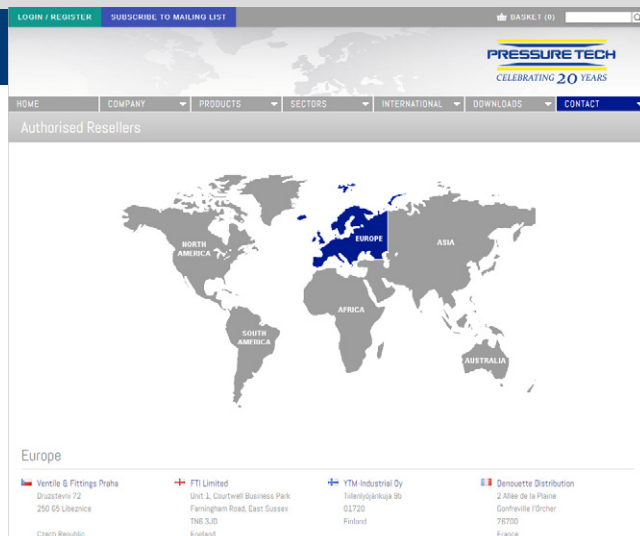


### AUTHORISED RESELLERS

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.

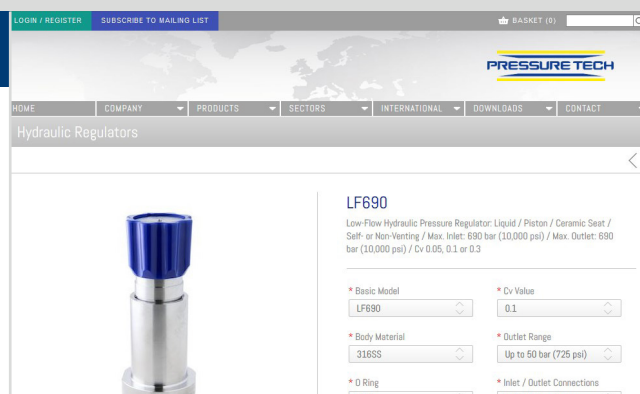
**www.pressure-tech.com**



### 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
$C_v = Q \sqrt{\frac{S}{\Delta P}}$	<b>Cv:</b> Valve flow coefficient (US GPM with P=1 psi) <b>Q:</b> Fluid flow (US GPM) <b>S:</b> Specific gravity of fluid <b>ΔP:</b> 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.
$C_v = K_1 Q \sqrt{\frac{S}{\Delta P}}$	<b>Cv:</b> Valve flow coefficient (US GPM with P=1 psi) <b>K1:</b> Viscosity correction factor for fluids <b>Q:</b> Fluid flow (US GPM) <b>S:</b> Specific gravity of fluid <b>ΔP:</b> 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
$C_v = \frac{Q_a \sqrt{G(T + 460)}}{1360 \sqrt{\Delta P (P_2)}}$	<b>Cv:</b> Valve flow coefficient (US GPM with P=1 psi) <b>Qa:</b> Air or gas flow (SCFH) at 14.7 psi and 60°F <b>G:</b> Specific gravity of gas relative to air at 14.7 psi and 60°F <b>T:</b> Flow air or gas temperature (°F) <b>ΔP:</b> P1 - P2 at maximum flow (psi) <b>P2:</b> Outlet pressure at maximum flow (psi abs.)	Use this formula when P2 is <i>greater than</i> 50% of P1.
$C_v = \frac{Q_a \sqrt{G(T + 460)}}{660 P_1}$	<b>Cv:</b> Valve flow coefficient (US GPM with P=1 psi) <b>Qa:</b> Air or gas flow (SCFH) at 14.7 psi and 60°F <b>G:</b> Specific gravity of gas relative to air at 14.7 psi and 60°F <b>T:</b> Flow air or gas temperature (°F) <b>P1:</b> 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](http://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](mailto: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.

Lined area for notes, consisting of multiple horizontal lines.

## Notes







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