

# **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 roducts 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 diaphragmsensed 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 enviroments, 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 electrolysers. 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.

# Page...

05 ANALYSER & INSTRUMENTATION

MINI300, LF310, LF240, TS310, TS311, CYL310, CYL540, ACS310, ACU310, XHS310, XHS410, XHS311, XHR310, XHR311, XHR310 (STEAM), XHM300 and XHM410.

HIGH PRESSURE: GAS

LF311, LF540 and LF792.

10 HIGH PRESSURE: LIQUID

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

12 MEDIUM-FLOW

MF101, MF230, MF231, DF1034, MF210, MF301, MF400, MF401 and MF414G.

14 HIGH-FLOW

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

16 BACK PRESSURE

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

19 DIVING

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

21 HYDROGEN

LW351, CV414-SC, AUTO438, H875, RF1034, LW438, LW-TS414, BP301 and AVO/AVC690.

23 SUBSEA

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

25 BOLTED FLANGE REGULATORS

The Pressure Tech solution - available on all regulators.

ORDERING

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





MINI300 COMPACT	_	PISTON- 316SS THREADED OPTIONAL LIGHTWEIGHT SENSED BONNET ADJUSTMENT METHODS & COMPACT								
PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION			
1/0"	0.06	Coo	210 bar (3,045 psi)	PCTFE	100 bar	Piston	Non			
1/8"	0.06	Gas	300 bar (4,350 psi)	PEEK™	(1,450 psi)	PISION				



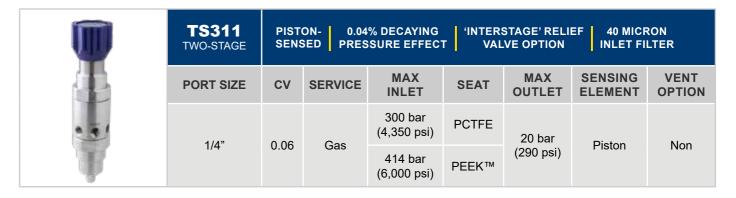
LF310 LOW-FLOW	_	INCONEL® X750 316SS THREADED 40 MICRON SOLID DISK DIAPHRAGM BONNET INLET FILTER SEAT DESIGN									
PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION				
			50 bar (725 psi)	FEP							
1/4"	0.06 0.15	Gas or Liquid	300 bar (4,350 psi)	PCTFE	35 bar (510 psi)	Inconel® X750 Diaphragm	Non				
			414 bar (6,000 psi)	PEEK™							



LF240 LOW-FLOW		LARGE ELASTOMERIC LIGHTWEIGHT LOW DECAYING DIAPHRAGM & COMPACT PRESSURE EFFECT								
PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION			
1/4"		Coo	300 bar (4,350 psi)	PCTFE	10 bar	PTFE-Lined	Non			
1/4	0.06 Gas		414 bar (6,000 psi)	PEEK™	(145 psi)	Diaphragm	Non			



TS310 TWO-STAGE		METAL-TO-METAL 0.04% DECAYING 'INTERSTAGE' RELIEF SEATING DIAPHRAGM PRESSURE EFFECT VALVE OPTION									
PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENT OPTION				
1/4"	0.06	Coo	300 bar (4,350 psi)	PCTFE	25 bar	Inconel® X750	Non				
1/4	0.00	Gas 414 ba (6,000 p		PEEK™	(360 psi)	Diaphragm	NOII				





	CYL310 CYLINDER ASSEMBLY		CUSTOMISABLE TO   INCONEL® X750   SOLID DISK   40 MICRON SUIT APPLICATION   DIAPHRAGM   SEAT DESIGN   INLET FILTER								
	PORT SIZE	cv	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION			
	1/4"	0.00	Coo	300 bar (4,350 psi)	PCTFE	35 bar	Inconel® X750	Non			
		0.06 Gas		414 bar (6,000 psi)	PEEK™	(510 psi)	Diaphragm	Non			



	CYL540 CYLINDER ASSEMBLY	COMI	PACT   PIST		F OR ENTING	40 MICRON INLET FILTER				
2	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		



À	ACS310 AUTO-CHANGEOVER		ICAL / LAB LICATIONS	USER-FRIEN DESIGN		ID- STAND OR WALL-M	ALONE OR IOUNTABLE	
)	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	-	ONEL® X750 PHRAGM	USER-FRIEN DESIGN		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



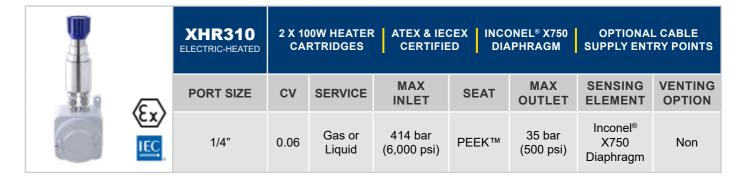
	XHS310 ELECTRIC-HEATED		00W HEATER   SIDE-ENTRY   ATEX & IECEX   INCONEL® X750 CARTRIDGE   OR IN-LINE   CERTIFIED   DIAPHRAGM									
	PORT SIZE	cv	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION				
>	1/4"	0.06	Coo	300 bar (4,350 psi)	PCTFE	35 bar	Inconel®	Non				
	1/4	0.00	Gas	414 bar (6,000 psi)	PEEK™	(510 psi)	X750 Diaphragm	NOII				

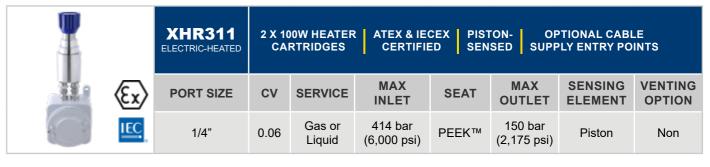


	XHS410 ELECTRIC-HEATED		C, IECEX & CERTIFIED	-	REMOTE TEMPERATURE DIGITAL 115V / 230V AC & CONTROL AND READOUT READOUT 24V DC OPTIONS						
US	PORT SIZE	cv	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION			
>	1/4"	0.06	Gas	300 bar (4,350 psi)	PCTFE	35 bar	Inconel® X750	N/A			
	1/4	0.00	Gas	414 bar (6,000 psi)	PEEK™	(510 psi)	Diaphragm	IN/A			



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





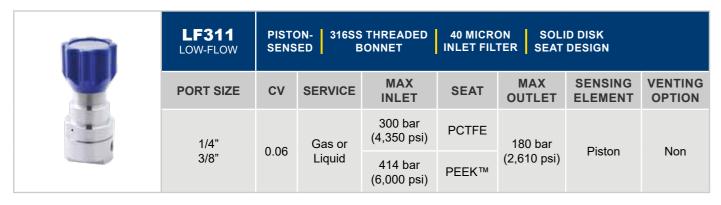
	XHR310 STEAM-HEATED		M-HEATED ESIGN	40 MICRON INLET FILTE		EL® X750 HRAGM	SOLID DISK SEAT DESIGN	
-	PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION
7	1/4"	0.06	Gas or Liquid	414 bar (6,000 psi)	PEEK™	35 bar (500 psi)	Inconel® X750 Diaphragm	Non



c UL US:	XHM410 HEATER MANIFOLD		, IECEX & CERTIFIED	REMOTE TE CONTROL AI		The second se	AL   115V / 2 DUT   24V DC	30V AC & OPTIONS
Ex	PORT SIZE	cv	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION
IEC.	1/4"	NA	Gas or Liquid	300 bar (4,350 psi)	NA	NA	NA	NA

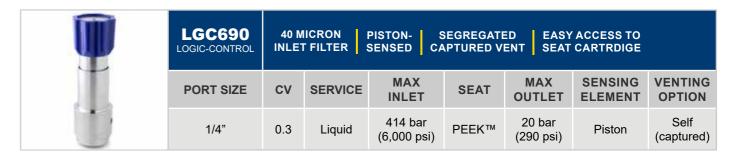






	LF540 LOW-FLOW		COMPACT & PISTON- NON- OR PRECISION-MACHINED SENSING ELEMENT								
	PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION			
	1/4" 3/8"	0.1	Gas or Liquid	690 bar (10,000 psi)	PEEK™	414 bar (6,000 psi)	Piston	Non or Self			

	<b>LF792</b> LOW-FLOW	ENHANCED PISTON- SEGREGATED EASY ACCESS TO SEAT SUPPORT SENSED CAPTURED VENT 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 <sup>®</sup>	1,034 bar (15,000 psi)	Piston	Non or Self (captured)	



	HYD690 HYDRAULIC	_	COMPACT & SEGREGATED MAIN VALVE ECONOMICAL CAPTURED VENT CARTRIDGE DESIGN							
1	PORT SIZE	cv	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION		
4	-	0.06	Liquid	690 bar (10,000 psi)	Tecasint <sup>®</sup>	690 bar (10,000 psi)	Piston	Self (captured)		

	HYD691 HYDRAULIC	COM	COMPACT CERAMIC SEGREGATED MAIN VALVE CAPTURED VENT CARTRIDGE DESIGN							
1	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 FULLY SUPPORTED SEGREGATED EASY ACCESS TO SEAT MAIN VALVE CAPTURED VENT 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 FULLY SUPPORTED SEGREGATED EASY ACCESS TO SEAT MAIN VALVE CAPTURED VENT 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)		



# **Medium-Flow Regulators**



W	MF414H MEDIUM-FLOW		PISTON- BALANCED SEGREGATED HIGH FLOW SENSED DESIGN CAPTURED VENT 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)			

www.pressure-tech.com

	MF101 MEDIUM-FLOW	LARC	LARGE PRECISION-MACHINED NON- OR LIGHTWEIGHT SENSING ELEMENT SELF-VENTING & COMPACT							
	PORT SIZE	cv	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION		
			Gas or Liquid	100 bar	PCTFE	35 bar				
				(1,450 psi) Unbalanced	PEEK™	(510 psi) Self-Vent	Piston	Non or Self		
	1/4"	0.5		300 bar (4,350 psi) Balanced	PCTFE	or 40 bar				
				414 bar (6,000 psi) Balanced	PEEK™	(580 psi) Non-Vent				

	MF230 MEDIUM-FLOW		LARGE SENSITIVE BALANCED LOW DECAYING ELASTOMERIC DIAPHRAGM DESIGN PRESSURE EFFECT							
	PORT SIZE	cv	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION		
	1/2" 1	1.0	Gas or Liquid	50 bar (725 psi)	PTFE	10 bar	Dianhragm	Non		
	1/2	1.0		230 bar (3,350 psi)	PCTFE or PEEK™	(145 psi)	Diaphragm	Non		

	MF231 MEDIUM-FLOW		LARGE SENSITIVE BALANCED LOW DECAYING ELASTOMERIC DIAPHRAGM DESIGN 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		
	1/2			230 bar (3,350 psi)	PCTFE or PEEK™		FISIOII			

	DF1034 DUAL-FLOW	DESIGN MAIN VALVE SENSED SEAT CARTRIDGE										
	PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION				
3	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)				



www.pressure-tech.com





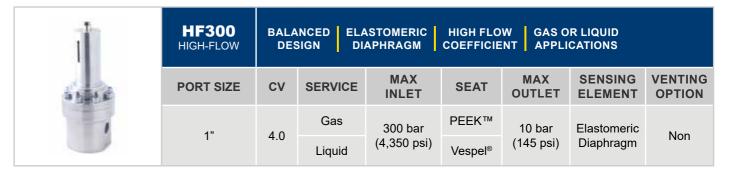
MF210 MEDIUM-FLOW		E-LINED HRAGM O		NGE OF ENI			
PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION
1/2" 3/4" 1"	1.8	Gas	40 bar (580 psi)	PCTFE	10 bar (145 psi)	PTFE-Lined Elastomeric Diaphragm	Non

MF301 MEDIUM-FLOW	PIST( SENS	ON- BALA SED DES	_	W DECAYING SSURE EFFE		ACCESS TO 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		NCED CO	OPTIONAL NNECTION TY		PHRAGM- ENSED (	HIGH FLOW COEFFICIENT	
Company Company	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

W	MF401 MEDIUM-FLOW		NCED   BIGN   CO	OPTIONAL INNECTION TY	PIST PES SEN	-	I FLOW FICIENT	
No amount	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

W	MF414G MEDIUM-FLOW	PIST( SENS			GREGATED FURED VEN			
1	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)



i	HF301 HIGH-FLOW			TON- HIGH ISED COEFF		GAS OR LIQU APPLICATION		
6660	PORT SIZE	cv	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION
	1"	4.0	Gas	300 bar	PEEK™	300 bar	Piston	Non
		4.0	Liquid (4,350 psi)		Vespel®	(4,350 psi)	FISION	INON

Ī	HF250 HIGH-FLOW		NCED DIA		HIGH FLOV		R LIQUID ATIONS	
SEE	PORT SIZE	cv	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENT OPTION
. 0	1"	7.0	Gas	250 bar	PCTFE	10 bar	Diaphragm	Non
	1 1/2"	7.0	Liquid	(3,625 psi)	PEEK™	(145 psi)	Diaphragm	Non

Ī	HF251 HIGH-FLOW				H FLOW FFICIENT	GAS OR LIQ APPLICATIO		
468.0	PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENT OPTION
. 0	1"	7.0	Gas	250 bar	PCTFE	200 bar	Diston	Non
	1 1/2"	7.0	Liquid	(3,625 psi)	PEEK™	(3,625 psi)	) Piston	Non



# **Back Pressure Regulators**





HF210 HIGH-FLOW	_	SPRING OR DIAPHRAGM- HIGH FLOW GAS OR LIQUID DOME-LOADED SENSED COEFFICIENT APPLICATIONS									
PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION				
2"	12.0	Gas	210 bar	PCTFE	10 bar	Diaphragm	Non				
2	2" 13.0 Liquid		(3,045 psi)	PEEK™	(145 psi)	ыарпадпі	Non				



HF211 HIGH-FLOW	_	PILOT-OPERATED PISTON- HIGH FLOW GAS OR LIQUID AS STANDARD SENSED COEFFICIENT APPLICATIONS								
PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION			
2"	12.0	Gas	210 bar	PCTFE	200 bar	Piston	Non			
2	13.0 Liquid		(3,045 psi)	PEEK™	(2,900 psi)	PISION	NOII			



BP010 BACK PRESSURE	ELASTO! DIAPHR				S 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 DIAPHR		OR LIQUID	LOW FLOW COEFFICIEN		
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- GAS OR LIQUID CHOICE OF LOW LIGHTWEIGHT SENSED APPLICATIONS FLOW COEFFICIENTS & COMPACT										
PORT SIZE	CV	CV SERVICE MAX RATING SEAT CONTROL SENSING RANGE ELEMENT										
		Gas	150 bar	PCTFE	150 bar							
1/4"	0.1	Liquid	(2,175 psi)	PCTFE or PEEK™	(2,175 psi)	Piston						



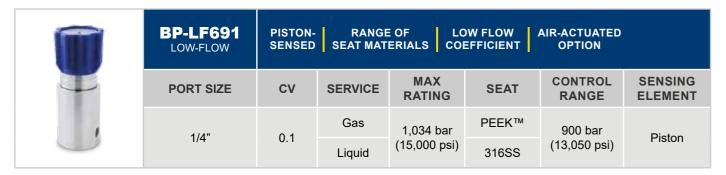
BP-LF540 LOW-FLOW		PISTON- GAS OR LIQUID LOW FLOW AIR-ACTUATED SENSED APPLICATIONS COEFFICIENT OPTION									
PORT SIZE	cv	SERVICE	MAX RATING	SEAT	CONTROL RANGE	SENSING ELEMENT					
1/4"	0.1	Gas or Liquid	550 bar (7,795 psi)	PEEK™	414 bar (6,000 psi)	Piston					



BP-LF690 LOW-FLOW	PISTON SENSEI		E OF LO	OW FLOW EFFICIENT	AIR-ACTUATED OPTION	
PORT SIZE	cv	SERVICE	MAX RATING	SEAT	CONTROL RANGE	SENSING ELEMENT
1/4"	0.1	Gas	550 bar	PEEK™	414 bar	Piston
1/4	0.1	Liquid	(7,975 psi)	316SS	(6,000 psi)	FISION







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

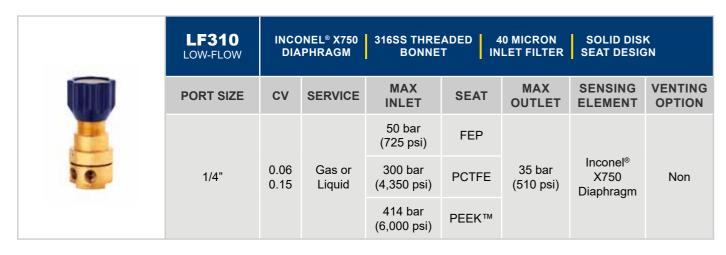
W	BP-MF690 (15) MEDIUM-FLOW	PISTON- SENSED		AIR-ACTUA OPTION			
1	PORT SIZE	cv	SERVICE	MAX RATING	SEAT	CONTROL RANGE	SENSING ELEMENT
	3/4"	1.5	Gas	690 bar	PEEK™	300 bar	Piston
-	3/4	1.5	Liquid	(10,000 psi)	Ceramic	(4,350 psi)	Pistori

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

W	BP-MF401 MEDIUM-FLOW	ELASTO DIAPHF		Y ACCESS TO T CARTRIDGE		YPE BALANC T DESIG	
Security Security	PORT SIZE	CV	SERVICE	MAX RATING	SEAT	CONTROL RANGE	SENSING ELEMENT
	1/0"	2.0	Gas	400 bar	PCTFE	200 bar	Diaton
	1/2" 3.0		Liquid	(5,800 psi)	PEEK™	(2,900 psi)	Piston







MF101D MEDIUM-FLOW							
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 d	Non or
1/4	0.5	Gas	300 bar (4,350 psi) Balanced	FOIFE	or 40 bar (580 psi) Non-Vent	PISIOII	Self

	<b>LF540</b> LOW-FLOW	_		PISTON- SENSED SE	NON- OR LF-VENTIN		ON-MACHINE NG ELEMENT	D
	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- BALANCED LOW DECAYING EASY ACCESS TO SENSED DESIGN PRESSURE EFFECT SEAT CARTRIDGE							
	PORT SIZE	cv	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION		
9	1/2"	2.0	Gas	300 bar (4,350 psi)	PCTFE	300 bar (4,350 psi)	Piston	Non or Self		

	MF300T MEDIUM-FLOW	PIST( SENS	The state of the s	KING DESIGN ESSURE DIFFE		;		
	PORT SIZE	cv	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION
3	1/2"	2.0	Gas or Liquid	300 bar (4,350 psi)	PCTFE	25 bar (360 psi)	Piston	Self

	BIBS100 NEGATIVE BIASED		GE SENSITIV MERIC DIAPH	to the second	Y ACCESS TO CARTRIDGE	FINE ADJUST OF BIAS SP	
	PORT SIZE	cv	SERVICE	MAX RATING	SEAT	CONTROL RANGE	SENSING ELEMENT
S. Co.	3/4"	2.0	Gas	50 bar (725 psi)	PCTFE	30 bar (435 psi)	Elastomeric Diaphragm





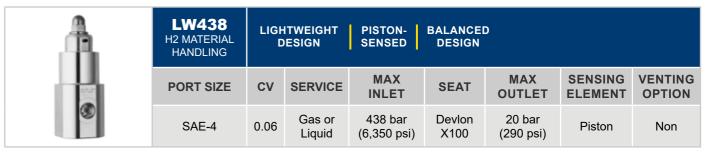


TPED APPROVED	4>	CV414-SC CYLINDER VALVE		EASY CONTINUAL QUICK & EASY LIGHTWEIGHT SCONNECT GAS SUPPLY FILLING & COMPACT						
		PORT SIZE	CV	SERVICE	MAX INLET	SEAT	TYPE	APPROVAL		
		5/8" UNF	0.06	Gas	350 bar (5,075 psi)	PCTFE	Salf Clasina	TPED		
		M18	0.00	Gas	414 bar (6,000 psi)	PEEK™	Self-Closing	-		

EC79 APPROVED	AUTO438 H2 BUSES & TRUCKS		ACCESS TO	D   IN-LINI E   VENT PO			C79 ROVED	
	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 LIGHTWEIGHT & SUPERIOR DUAL STAGE REGULATOR COMPACT DESIGN PRESSURE CONTROL FILTRATION								
6	PORT SIZE	cv	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION		
8	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 DESIGNED TO PISTON- VARIOUS FLOW ISO 19880-3 SENSED 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)	



À	LW-TS414 H2 LIGHTWEIGHT MOBILITY	1110	O-STAGE ESIGN	0.04% DEC PRESSURE I		OLID DISK AT DESIGN	LIGHTWEIG DESIGN	
	PORT SIZE	CV	SERVICE	MAX INLET	1ST STAGE SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION
TI,	414"	0.06	Gas	300 bar (4,350 psi)	PCTFE	1 bar	Piston	Non
T	1/4"		Gas	414 bar (6,000 psi)	PEEK™	(14.5 psi)	PISTON	Non

BP301 H2 ENERGY PRODUCTION	PISTON- STABLE LIGHTWEIGHT ADDITIONAL BACK PRESSURE SENSED CONTROL & COMPACT 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 FAIL SAFE SOLENOID LOW ACTUATION FLOW OPERATION VALVE OPTION 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			







API 17F APPROVED	SS690 SUBSEA			ANTI-TAMPE LOCKING CA		· ·	PTIONAL TE OPERATIO	N
	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 ANTI-TAMPER MP35N OPTIONAL DEEP WATERS LOCKING CAP SPRING REMOTE OPERATION							
1-1	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 ANTI-TAMPER MP35N OPTIONAL DEEP WATERS LOCKING CAP SPRING 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 ANTI-TAMPER MP35N OPTIONAL DEEP WATERS LOCKING CAP SPRING REMOTE OPERATION							
1	PORT SIZE	CV	SERVICE	MAX INLET	SEAT	MAX OUTLET	SENSING ELEMENT	VENTING OPTION		
121	3/8"	2.0	Gas	414 bar	PEEK™	250 bar	Piston	Non or		
4-3	3/0	2.0	Liquid	(6,000 psi)	Ceramic	(3,625 psi)	PISION	Self		

	SS-BP400 SUBSEA	SUITABLE FOR ANTI-TAMPER MP35N OPTIONAL DEEP WATERS LOCKING CAP SPRING 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 ANTI-TAMPER MP35N OPTIONAL DEEP WATERS LOCKING CAP SPRING 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 ANTI-TAMPER MP35N OPTIONAL DEEP WATERS LOCKING CAP SPRING REMOTE OPERATION						
6-13	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.

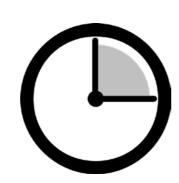
### **STANDARDS**



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 neglible for water below 93°C (200°F) - use S=1.0.  Use actual specific gravity of other liquids at actual flow temperature.			
$C_{v} = K_{1}Q \sqrt{\frac{S}{\Delta P}}$	<ul> <li>Cv: Valve flow coefficient (US GPM with P=1 psi)</li> <li>K1: Viscosity correction factor for fluids</li> <li>Q: Fluid flow (US GPM)</li> <li>S: Specific gravity of fluid</li> <li>ΔP: P1 - P2 at maximum flow (psi)</li> </ul>	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			
$C_v = \frac{\mathrm{Qa}\sqrt{G(T+460)}}{1360\sqrt{\Delta P(P_2)}}$	Cv: Valve flow coefficient (US GPM with P=1 psi) Qa: Air or gas flow (SCFH) at 14.7 psi and 60°F G: Specific gravity of gas relative to air at 14.7 psi and 60°F T: Flow air or gas temperature (°F) ΔP: P1 - P2 at maximum flow (psi) P2: Outlet pressure at maximum flow (psi abs.)	Use this formula when P2 is greater than 50% of P1.			
$C_v = \frac{\text{Qa}\sqrt{G(T + 460)}}{660  P_1}$	Cv: Valve flow coefficient (US GPM with P=1 psi) Qa: Air or gas flow (SCFH) at 14.7 psi and 60°F G: Specific gravity of gas relative to air at 14.7 psi and 60°F T: Flow air or gas temperature (°F) P1: Inlet pressure at maximum flow (psi abs.)	Use this formula when P2 is less than or equal to 50% of P1.			

# Information Required...

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

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

#### Please note

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

# Frequently Asked Questions...

What is your VAT number? GB 776 740 883.

### How do I check my order status?

Please 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 cotact details of all Authorised Resellers within that region.

### How do I apply for a credit account?

Please visit the 'Customer Resources' section of our website, download and complete our 'Trade Credit Account' application form and then email to <a href="mailto:accounts@pressure-tech.com">accounts@pressure-tech.com</a>.

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

**Notes** 



Notes

PRESSURE TECH

