

# **Total Pressure Regulator Solutions**





# 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 the 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 understand 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 enviroments, and intended for use on critical life support or hyperbaric diving applications.

## **HYDROGEN**



From ultra-compact and lightweight regulators (0.2kg) to onboard vehicle regulators and high-pressure refuelling solutions with fast fill times, our products cover a wide range of hydrogen fuel cell applications.

## 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, XHS311, XHR310, XHR311, XHR310 (STEAM) and XHM300.

HIGH PRESSURE: GAS

LF311, LF540 and LF792.

10 HIGH PRESSURE: LIQUID

LGC690, HYD691, LF690, LF691 and MF414H.

11 MEDIUM-FLOW

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

13 HIGH-FLOW

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

15 BACK PRESSURE

BP010, BP300, BP301, BP-LF540, BP-LF690, BP-LF691, BP-MF690 (05), BP-MF690 (15), BP-MF400, BP-MF401, BP-HF301 and BP-HF251.

18 DIVING

MF101, LF540, MF301, MF300T and BIBS100.

19 HYDROGEN

LW351, AUTO438, AUTO875 and RF1034.

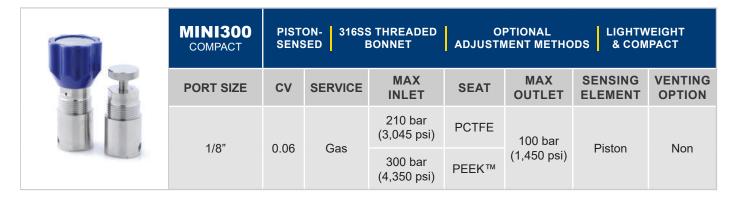
20 SUBSEA

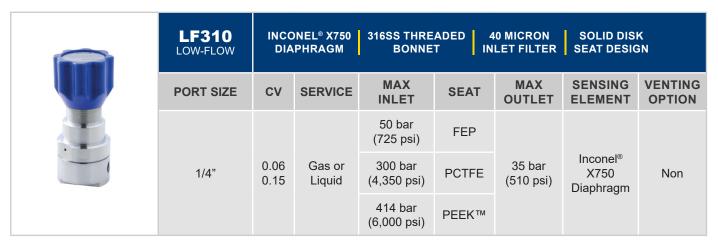
SS690, SS691 and SS414.

21 ORDERING

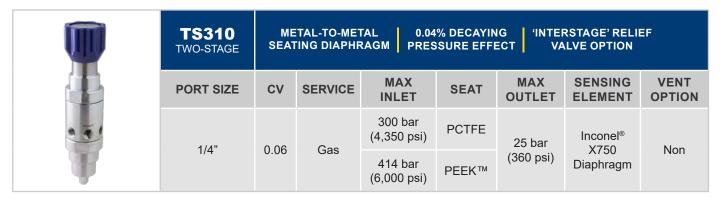
How to order and what information we require.

## **Analyser & Instrumentation Regulators**













| TS311<br>TWO-STAGE |      | PISTON- 0.04% DECAYING 'INTERSTAGE' RELIEF 40 MICRON SENSED PRESSURE EFFECT VALVE OPTION INLET FILTER |                        |       |               |                    |                |  |  |
|--------------------|------|---|------------------------|-------|---------------|--------------------|----------------|--|--|
| PORT SIZE          | CV   | SERVICE   | MAX<br>INLET           | SEAT  | MAX<br>OUTLET | SENSING<br>ELEMENT | VENT<br>OPTION |  |  |
| 4/4"               | 0.06 | Gas   | 300 bar<br>(4,350 psi) | PCTFE | 20 bar        | Piston             | Nan            |  |  |
| 1/4"               | 0.06 | Gas   | 414 bar<br>(6,000 psi) | PEEK™ | (290 psi)     | Piston             | Non            |  |  |

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

|  | CYL540<br>CYLINDER ASSEMBLY | COM<br>DES | PACT PIST | TON- SEL<br>ISED NON-V | .F OR<br>ENTING | 40 MICRON<br>INLET FILTEI |                    |                |
|--|-----------------------------|------------|-----------|------------------------|-----------------|---------------------------|--------------------|----------------|
|  | PORT SIZE                   | cv         | SERVICE   | MAX<br>INLET           | SEAT            | MAX<br>OUTLET             | SENSING<br>ELEMENT | VENTING OPTION |
|  | 1/4"                        | 0.1        | Gas       | 550 bar<br>(7,975 psi) | PEEK™           | 35 bar<br>(510 psi)       | Piston             | Non or<br>Self |

|  | ACS310<br>AUTO-CHANGEOVER |      | ICAL / LAB<br>LICATIONS | USER-FRIEN<br>DESIGN   |                | ONAL SECON<br>BE REGULAT |                               | ALONE OR<br>OUNTABLE |
|--|---------------------------|------|-------------------------|------------------------|----------------|--------------------------|-------------------------------|----------------------|
|  | PORT SIZE                 | CV   | SERVICE                 | MAX<br>INLET           | SEAT           | MAX<br>OUTLET            | SENSING<br>ELEMENT            | VENTING OPTION       |
|  | 1/4"                      | 0.06 | Gas                     | 300 bar<br>(4,350 psi) | PCTFE or PEEK™ | 20 bar<br>(290 psi)      | Inconel®<br>X750<br>Diaphragm | Non                  |

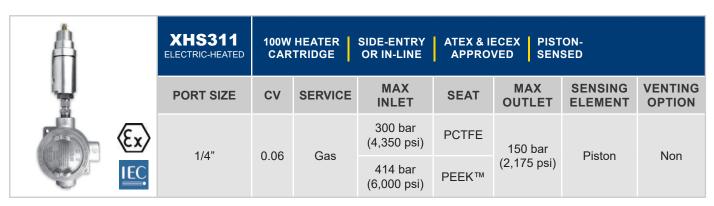
## **Analyser & Instrumentation Regulators**

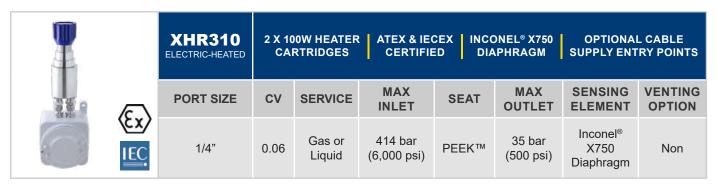


| ACU310<br>AUTO-CHANGEOVER | _    | ONEL® X750<br>PHRAGM | USER-FRIEN<br>DESIGN   |                | OND-STAGE<br>GULATOR | 0.1% DEC                      |                |
|---------------------------|------|----------------------|------------------------|----------------|----------------------|-------------------------------|----------------|
| PORT SIZE                 | CV   | SERVICE              | MAX<br>INLET           | SEAT           | MAX<br>OUTLET        | SENSING<br>ELEMENT            | VENTING OPTION |
| 1/4"                      | 0.06 | Gas                  | 300 bar<br>(4,350 psi) | PCTFE or PEEK™ | 20 bar<br>(290 psi)  | Inconel®<br>X750<br>Diaphragm | Non            |



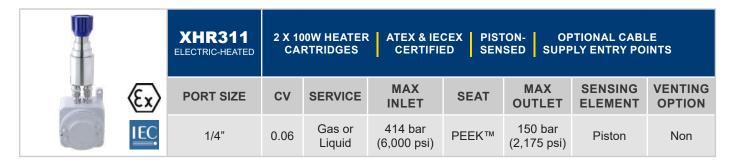
| XHS310<br>ELECTRIC-HEATED |     | 100W HEATER   SIDE-ENTRY   ATEX & IECEX   INCONEL® X750   CARTRIDGE   OR IN-LINE   CERTIFIED   DIAPHRAGM |              |           |                   |                    |                |  |  |  |  |
|---------------------------|-----|--|--------------|-----------|-------------------|--------------------|----------------|-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











|   | XHR310<br>STEAM-HEATED |      | M-HEATED<br>ESIGN | 40 MICRON<br>INLET FILTE |       | EL® X750<br>HRAGM   | SOLID DISK<br>SEAT DESIGN     |                |
|---|------------------------|------|-------------------|--------------------------|-------|---------------------|-------------------------------|----------------|
|   | PORT SIZE              | cv   | SERVICE           | MAX<br>INLET             | SEAT  | MAX<br>OUTLET       | SENSING<br>ELEMENT            | VENTING OPTION |
| 8 | 1/4"                   | 0.06 | Gas or<br>Liquid  | 414 bar<br>(6,000 psi)   | PEEK™ | 35 bar<br>(500 psi) | Inconel®<br>X750<br>Diaphragm | Non            |

|          | XHM300<br>HEATER MANIFOLD |    | ATEX & IECEX   ALTERNATIVE   COMPACT   115V OR 2<br>CERTIFIED   MATERIALS AVAILABLE   DESIGN   POWER SU |                        |      |               |                    |                |
|----------|---------------------------|----|---|------------------------|------|---------------|--------------------|----------------|
|          | PORT SIZE                 | cv | SERVICE   | MAX<br>INLET           | SEAT | MAX<br>OUTLET | SENSING<br>ELEMENT | VENTING OPTION |
| ⟨£x⟩ IEC | 1/4"                      | NA | Gas or<br>Liquid  | 300 bar<br>(4,350 psi) | NA   | NA            | NA                 | NA             |

# **High-Pressure Regulators: Gas**

|  | <b>LF311</b><br>LOW-FLOW |      | PISTON- 316SS THREADED 40 MICRON SOLID DISK SENSED BONNET INLET FILTER SEAT DESIGN  |              |       |               |                    |                |  |
|--|--------------------------|------|---|--------------|-------|---------------|--------------------|----------------|--|
|  | PORT SIZE                | CV   | SERVICE   | MAX<br>INLET | SEAT  | MAX<br>OUTLET | SENSING<br>ELEMENT | VENTING OPTION |  |
|  | 1/4"<br>3/8"             | 0.06 | 0.06 Gas or Liquid 300 bar (4,350 psi) PCTFE 180 bar (2,610 psi) PEEK™  300 bar (4,350 psi) PCTFE 180 bar (2,610 psi) PEEK™ | Distan       | Non   |               |                    |                |  |
|  |                          | 0.06 |   |              | PEEK™ | (2,610 psi)   | Piston             | Non            |  |

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

| <b>LF792</b><br>LOW-FLOW |     | ENHANCED PISTON- SEGREGATED EASY ACCESS TO SEAT SUPPORT SENSED CAPTURED VENT SEAT CARTRIDGE |                           |           |                           |                    |                              |  |
|--------------------------|-----|---|---------------------------|-----------|---------------------------|--------------------|------------------------------|--|
| PORT SIZE                | CV  | SERVICE   | MAX<br>INLET              | SEAT      | MAX<br>OUTLET             | SENSING<br>ELEMENT | VENTING OPTION               |  |
| 1/4"<br>3/8"             | 0.1 | Gas   | 1,034 bar<br>(15,000 psi) | Tecasint® | 1,034 bar<br>(15,000 psi) | Piston             | Non or<br>Self<br>(captured) |  |





| LGC690<br>LOGIC-CONTROL | _   | 40 MICRON PISTON- SEGREGATED EASY ACCESS TO INLET FILTER SENSED CAPTURED VENT SEAT CARTRDIGE |                        |       |                     |                    |                    |  |  |
|-------------------------|-----|--|------------------------|-------|---------------------|--------------------|--------------------|--|--|
| PORT SIZE               | cv  | SERVICE  | MAX<br>INLET           | SEAT  | MAX<br>OUTLET       | SENSING<br>ELEMENT | VENTING OPTION     |  |  |
| 1/4"                    | 0.3 | Liquid   | 414 bar<br>(6,000 psi) | PEEK™ | 20 bar<br>(290 psi) | Piston             | Self<br>(captured) |  |  |

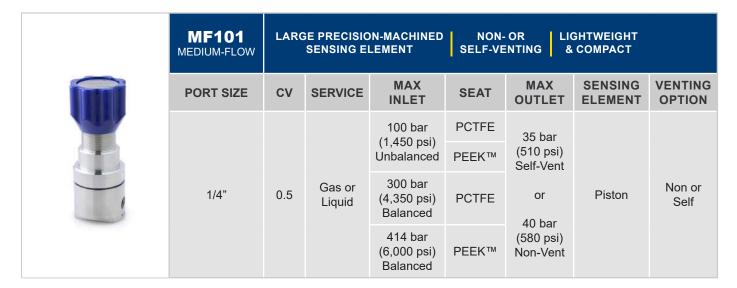
|   | HYD691<br>HYDRAULIC |      | COMPACT & CERAMIC   SEGREGATED   MAIN VALVE   CONOMICAL   SEAT   CAPTURED VENT   CARTRIDGE DESIGN |                         |         |                         |                    |                              |  |
|---|---------------------|------|---|-------------------------|---------|-------------------------|--------------------|------------------------------|--|
|   | PORT SIZE           | CV   | SERVICE   | MAX<br>INLET            | SEAT    | MAX<br>OUTLET           | SENSING<br>ELEMENT | VENTING OPTION               |  |
| • | 1/4"<br>3/8"        | 0.06 | Liquid  | 690 bar<br>(10,000 psi) | Ceramic | 690 bar<br>(10,000 psi) | Piston             | Non or<br>Self<br>(captured) |  |

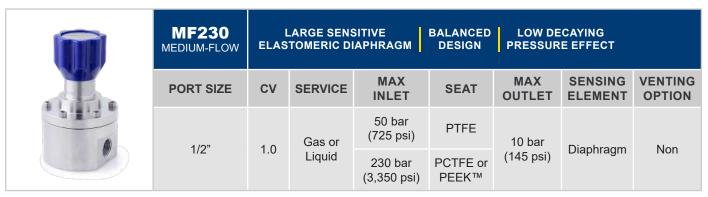
|     | LF690<br>LOW-FLOW |            | CERAMIC FULLY SUPPORTED SEGREGATED EASY ACCESS TO SEAT MAIN VALVE CAPTURED VENT SEAT CARTRIDGE |                         |         |                         |                    |                              |  |  |
|-----|-------------------|------------|--|-------------------------|---------|-------------------------|--------------------|------------------------------|--|--|
|     | PORT SIZE         | CV         | SERVICE  | MAX<br>INLET            | SEAT    | MAX<br>OUTLET           | SENSING<br>ELEMENT | VENTING OPTION               |  |  |
| (P) | 1/4"<br>3/8"      | 0.1<br>0.3 | Liquid   | 690 bar<br>(10,000 psi) | Ceramic | 690 bar<br>(10,000 psi) | Piston             | Non or<br>Self<br>(captured) |  |  |

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

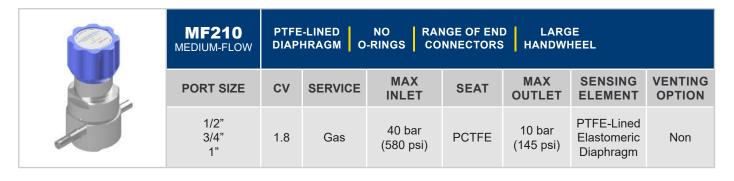
| W | MF414H<br>MEDIUM-FLOW | PIST(<br>SENS | LOW     |                        |         |                        |                    |                              |
|---|-----------------------|---------------|---------|------------------------|---------|------------------------|--------------------|------------------------------|
|   | PORT SIZE             | CV            | SERVICE | MAX<br>INLET           | SEAT    | MAX<br>OUTLET          | SENSING<br>ELEMENT | VENTING OPTION               |
|   | 1/2"<br>3/4"          | 2.0           | Liquid  | 414 bar<br>(6,000 psi) | Ceramic | 414 bar<br>(6,000 psi) | Piston             | Non or<br>Self<br>(captured) |

# **Medium-Flow Regulators**





| MF231<br>MEDIUM-FLOW |     | LARGE SENSITIVE BALANCED LOW DECAYING ELASTOMERIC DIAPHRAGM DESIGN PRESSURE EFFECT |                        |                               |               |                    |                |  |
|----------------------|-----|--|------------------------|-------------------------------|---------------|--------------------|----------------|--|
| PORT SIZE            | CV  | SERVICE  | MAX<br>INLET           | SEAT                          | MAX<br>OUTLET | SENSING<br>ELEMENT | VENTING OPTION |  |
| 1/2"                 | 4.0 | 0  | 35 bar<br>(510 psi)    | 35 bar (510 psi) PTFE 100 bar | Distan        | Non                |                |  |
| 1/2                  | 1.0 | Gas  | 230 bar<br>(3,350 psi) | PCTFE or PEEK™                | (1,450 psi)   | Piston             | Non            |  |







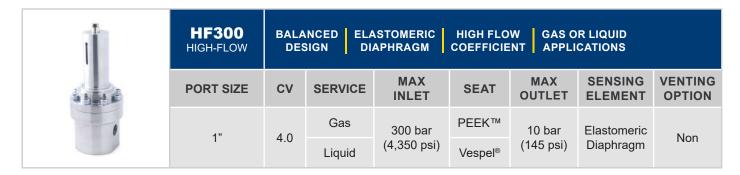
| MF301<br>MEDIUM-FLOW | _   | PISTON- BALANCED LOW DECAYING EASY ACCESS TO SENSED DESIGN PRESSURE EFFECT SEAT CARTRIDGE |                        |       |               |                    |                |  |
|----------------------|-----|---|------------------------|-------|---------------|--------------------|----------------|--|
| PORT SIZE            | cv  | SERVICE   | MAX<br>INLET           | SEAT  | MAX<br>OUTLET | SENSING<br>ELEMENT | VENTING OPTION |  |
| 1/2"                 | 2.0 | Gas or  | 300 bar<br>(4,350 psi) | PCTFE | 300 bar       | Distan             | Non or         |  |
| 3/4"                 | 2.0 | Liquid  | 414 bar<br>(6,000 psi) | PEEK™ | (4,350 psi)   | Piston             | Self           |  |

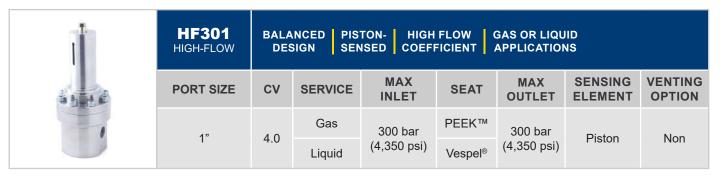
| W             | MF400<br>MEDIUM-FLOW |     | BALANCED OPTIONAL DIAPHRAGM- HIGH FLOW CONNECTION TYPES SENSED COEFFICIENT |                        |                   |                     |                    |                |  |  |
|---------------|----------------------|-----|--|------------------------|-------------------|---------------------|--------------------|----------------|--|--|
| (A. 12. 12.6) | PORT SIZE            | CV  | SERVICE  | MAX<br>INLET           | SEAT              | MAX<br>OUTLET       | SENSING<br>ELEMENT | VENTING OPTION |  |  |
|               | 1/2"<br>3/4"         | 2.0 | Gas or<br>Liquid   | 400 bar<br>(5,800 psi) | PCTFE or<br>PEEK™ | 10 bar<br>(145 psi) | Diaphragm          | Non            |  |  |

| W         | MF401<br>MEDIUM-FLOW |     | BALANCED OPTIONAL PISTON- HIGH FLOW DESIGN CONNECTION TYPES SENSED COEFFICIENT |                        |                   |                        |                    |                |  |  |
|-----------|----------------------|-----|--|------------------------|-------------------|------------------------|--------------------|----------------|--|--|
| Section 1 | PORT SIZE            | cv  | SERVICE  | MAX<br>INLET           | SEAT              | MAX<br>OUTLET          | SENSING<br>ELEMENT | VENTING OPTION |  |  |
|           | 1/2"<br>3/4"         | 2.0 | Gas or<br>Liquid   | 400 bar<br>(5,800 psi) | PCTFE or<br>PEEK™ | 400 bar<br>(5,800 psi) | Piston             | Non            |  |  |

| W | MF414G<br>MEDIUM-FLOW |     | PISTON- BALANCED SEGREGATED HIGH FLOW SENSED DESIGN CAPTURED VENT COEFFICIENT |                        |       |                        |                    |                              |  |  |
|---|-----------------------|-----|---|------------------------|-------|------------------------|--------------------|------------------------------|--|--|
|   | PORT SIZE             | cv  | SERVICE   | MAX<br>INLET           | SEAT  | MAX<br>OUTLET          | SENSING<br>ELEMENT | VENTING OPTION               |  |  |
|   | 1/2"<br>3/4"          | 2.0 | Gas   | 414 bar<br>(6,000 psi) | PEEK™ | 414 bar<br>(6,000 psi) | Piston             | Non or<br>Self<br>(captured) |  |  |

## **High-Flow Regulators**



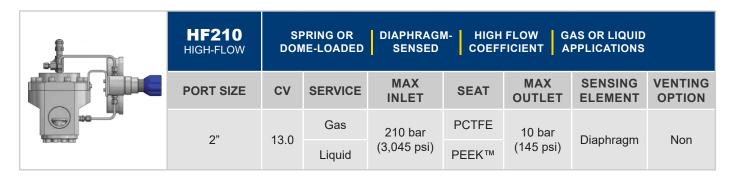


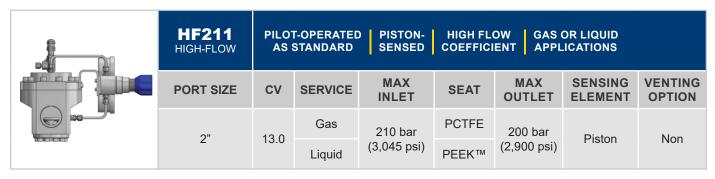
|      | HF250<br>HIGH-FLOW |     | BALANCED DIAPHRAGM- HIGH FLOW GAS OR LIQUID DESIGN SENSED COEFFICIENT APPLICATIONS |              |       |               |                    |                |  |  |
|------|--------------------|-----|--|--------------|-------|---------------|--------------------|----------------|--|--|
| TERE | PORT SIZE          | CV  | SERVICE  | MAX<br>INLET | SEAT  | MAX<br>OUTLET | SENSING<br>ELEMENT | VENT<br>OPTION |  |  |
| . 0  | 1"<br>1 1/2"       | 7.0 | Gas  | 250 bar      | PCTFE | 10 bar        | Dianhragm          | Non            |  |  |
|      |                    | 7.0 | Liquid   | (3,625 psi)  | PEEK™ | (145 psi)     | Diaphragm          | NOII           |  |  |

|     | HF251<br>HIGH-FLOW |     | BALANCED PISTON- HIGH FLOW GAS OR LIQUID DESIGN SENSED COEFFICIENT APPLICATIONS |              |       |               |                    |                |  |  |
|-----|--------------------|-----|---|--------------|-------|---------------|--------------------|----------------|--|--|
| GEO | PORT SIZE          | CV  | SERVICE   | MAX<br>INLET | SEAT  | MAX<br>OUTLET | SENSING<br>ELEMENT | VENT<br>OPTION |  |  |
| . 0 | 1"                 | 7.0 | Gas   | 250 bar      | PCTFE | 200 bar       | Dioton             | Non            |  |  |
|     | 1 1/2"             |     | Liquid  | (3,625 psi)  | PEEK™ | (3,625 psi)   | Pieton             | Non            |  |  |









# **Back Pressure Regulators**



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



| BP300<br>BACK PRESSURE | _   | INCONEL® X750 GAS OR LIQUID LOW FLOW LIGHTWEIGHT BIAPHRAGM APPLICATIONS COEFFICIENT & COMPACT |                     |           |                     |                            |  |  |  |  |
|------------------------|-----|---|---------------------|-----------|---------------------|----------------------------|--|--|--|--|
| PORT SIZE              | CV  | SERVICE   | MAX<br>RATING       | SEAL      |                     | SENSING<br>ELEMENT         |  |  |  |  |
| 1/4"                   | 0.1 | Gas or<br>Liquid  | 35 bar<br>(510 psi) | FKM / FPM | 20 bar<br>(290 psi) | Inconel® X750<br>Diaphragm |  |  |  |  |



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



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



| BP-LF690<br>LOW-FLOW | PISTON<br>SENSED | - RANG<br>SEAT MAT | and the second s | OW FLOW<br>EFFICIENT | AIR-ACTUATED<br>OPTION |                    |  |
|----------------------|------------------|--------------------|--|----------------------|------------------------|--------------------|--|
| PORT SIZE            | CV               | SERVICE            | MAX<br>RATING  | SEAT                 | CONTROL<br>RANGE       | SENSING<br>ELEMENT |  |
| 1//"                 | 0.1              | Gas                | 550 bar  | PEEK™                | 414 bar                | Dieton             |  |
| 1/4"                 | 0.1              | Liquid             | (7,975 psi)  | 316SS                | (6,000 psi)            | Piston             |  |





| BP-LF691<br>LOW-FLOW | PISTON-<br>SENSED |         |               |       |                  |                    |
|----------------------|-------------------|---------|---------------|-------|------------------|--------------------|
| PORT SIZE            | CV                | SERVICE | MAX<br>RATING | SEAT  | CONTROL<br>RANGE | SENSING<br>ELEMENT |
| 1/4"                 | 0.1               | Gas     | 1,034 bar     | PEEK™ | 900 bar          | Dieton             |
| 1/4"                 | 0.1               | Liquid  | (15,000 psi)  | 316SS | (13,050 psi)     | Piston             |

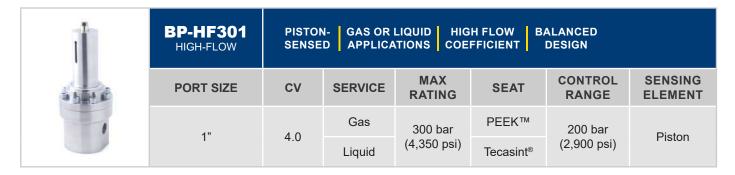
|   | BP-MF690 (05)<br>MEDIUM-FLOW | PISTON-<br>SENSED |         | N-MACHINED<br>ELEMENT | AIR-ACTUAT<br>OPTION | ED   FLANGED     |                    |  |
|---|------------------------------|-------------------|---------|-----------------------|----------------------|------------------|--------------------|--|
|   | PORT SIZE                    | CV                | SERVICE | MAX<br>RATING         | SEAT                 | CONTROL<br>RANGE | SENSING<br>ELEMENT |  |
| , | 1/2"                         | 0.5               | Gas     | 550 bar               | PEEK™                | 414 bar          | Piston             |  |
|   | 1/2"                         |                   | Liquid  | (7,975 psi)           | Hastelloy            | (6,000 psi)      | 1 15:011           |  |

|   | BP-MF690 (15)<br>MEDIUM-FLOW |     | PISTON- CERAMIC AIR-ACTUATED FLANGED SENSED SEATING OPTION OPTION |               |         |                  |                    |  |  |
|---|------------------------------|-----|---|---------------|---------|------------------|--------------------|--|--|
|   | PORT SIZE                    | cv  | SERVICE   | MAX<br>RATING | SEAT    | CONTROL<br>RANGE | SENSING<br>ELEMENT |  |  |
| - | 2/4"                         | 1.5 | Gas   | 690 bar       | PEEK™   | 300 bar          | Dieten             |  |  |
| - | 3/4"                         |     | Liquid  | (10,000 psi)  | Ceramic | (4,350 psi)      | Piston             |  |  |

|             | BP-MF400<br>MEDIUM-FLOW |     |            |           |       |                  |                    |  |  |  |  |
|-------------|-------------------------|-----|------------|-----------|-------|------------------|--------------------|--|--|--|--|
| 10 mg 10 mg | PORT SIZE               |     | CV SERVICE |           | SEAT  | CONTROL<br>RANGE | SENSING<br>ELEMENT |  |  |  |  |
| 1           | 1/2"                    | 3.0 | Gas        | 10 bar    | PCTFE | 10 bar           | Diaphragm          |  |  |  |  |
|             | 1/2"                    |     | Liquid     | (145 psi) | PEEK™ | (145 psi)        | Diapriragiti       |  |  |  |  |

|             | BP-MF401<br>MEDIUM-FLOW |     | ELASTOMERIC EASY ACCESS TO FLANGE-TYPE BALANCED DIAPHRAGM SEAT CARTRIDGE BONNET DESIGN |               |       |                  |                    |  |  |  |
|-------------|-------------------------|-----|--|---------------|-------|------------------|--------------------|--|--|--|
| Contract of | PORT SIZE               | CV  | SERVICE  | MAX<br>RATING | SEAT  | CONTROL<br>RANGE | SENSING<br>ELEMENT |  |  |  |
| ,           | 4/01                    | 3.0 | Gas  | 400 bar       | PCTFE | 200 bar          | Piston             |  |  |  |
|             | 1/2"                    |     | Liquid   | (5,800 psi)   | PEEK™ | (2,900 psi)      | PISION             |  |  |  |

## **Back Pressure Regulators**



| BP-HF251<br>HIGH-FLOW | PISTON- GAS OR LIQUID HIGH FLOW BALANCED SENSED APPLICATIONS COEFFICIENT DESIGN |         |               |           |                  |                    |  |  |
|-----------------------|---|---------|---------------|-----------|------------------|--------------------|--|--|
| PORT SIZE             | CV  | SERVICE | MAX<br>RATING | SEAT      | CONTROL<br>RANGE | SENSING<br>ELEMENT |  |  |
| 1"                    | 7.0   | Gas     | 300 bar       | PEEK™     | 200 bar          | Piston             |  |  |
| 1 1/2"                |   | Liquid  | (4,350 psi)   | Tecasint® | (2,900 psi)      | FISIOII            |  |  |

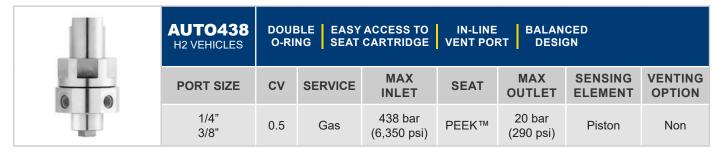




|          | MF101<br>MEDIUM-FLOW       | LARC          | GE PRECISIO<br>SENSING EI | N-MACHINED<br>LEMENT                 | NON-<br>SELF-VE        |                                  | IGHTWEIGHT<br>& COMPACT       |                |
|----------|----------------------------|---------------|---------------------------|--------------------------------------|------------------------|----------------------------------|-------------------------------|----------------|
|          | PORT SIZE                  | CV            | SERVICE                   | MAX<br>INLET                         | SEAT                   | MAX<br>OUTLET                    | SENSING<br>ELEMENT            | VENTING OPTION |
|          |                            |               |                           | 100 bar<br>(1,450 psi)<br>Unbalanced | PCTFE                  | 35 bar<br>(510 psi)<br>Self-Vent |                               |                |
|          | 1/4"                       | 0.5           | Gas or<br>Liquid          | 300 bar<br>(4,350 psi)<br>Balanced   | PCTFE                  | or<br>40 bar                     | Piston                        | Non or<br>Self |
|          |                            |               |                           | 414 bar<br>(6,000 psi)<br>Balanced   | PEEK™                  | (580 psi)<br>Non-Vent            |                               |                |
|          | LF540<br>LOW-FLOW          | _             |                           | PISTON-<br>SENSED SE                 | NON- OR<br>LF-VENTIN   |                                  | SION-MACHINE<br>SING ELEMENT  |                |
|          | PORT SIZE                  | CV            | SERVICE                   | MAX<br>INLET                         | SEAT                   | MAX<br>OUTLET                    | SENSING<br>ELEMENT            | VENTING OPTION |
|          | 1/4"                       | 0.1           | Gas or<br>Liquid          | 690 bar<br>(10,000 psi)              | PEEK™                  | 414 bar<br>(6,000 psi            | ) Piston                      | Non or<br>Self |
|          | MF301<br>MEDIUM-FLOW       | PIST(<br>SENS |                           |                                      | N DECAYIN<br>SURE EFFI |                                  | Y ACCESS TO<br>T CARTRIDGE    |                |
|          | PORT SIZE                  | CV            | SERVICE                   | MAX<br>INLET                         | SEAT                   | MAX<br>OUTLET                    | SENSING<br>ELEMENT            | VENTING OPTION |
| 6        | 1/2"                       | 2.0           | Gas or<br>Liquid          | 300 bar<br>(4,350 psi)               | PCTFE                  | 300 bar<br>(4,350 psi            | Piston                        | Non or<br>Self |
|          |                            |               |                           | 414 bar<br>(6,000 psi)               | PEEK™                  | ( 1,000 po.                      | ,                             |                |
|          | MF300T<br>MEDIUM-FLOW      | PIST(<br>SENS |                           | ACKING DESI<br>TANT PRESSU           |                        |                                  |                               |                |
| • 5      | PORT SIZE                  | CV            | SERVICE                   | MAX<br>INLET                         | SEAT                   | MAX<br>OUTLET                    | SENSING<br>ELEMENT            | VENTING OPTION |
|          | 1/2"                       | 2.0           | Gas or<br>Liquid          | 300 bar<br>(4,350 psi)               | PCTFE                  | 25 bar<br>(360 psi)              | Piston                        | Self           |
| Sm I add | BIBS100<br>NEGATIVE BIASED |               | LARGE SENS                |                                      | EASY ACC<br>SEAT CAR   |                                  | FINE ADJUSTM<br>OF BIAS SPRII |                |
|          | PORT SIZE                  | CV            | SERVI                     | CE MAX                               | G                      | EAT                              | CONTROL                       | SENSING        |
|          | FORT SIZE                  |               | OLIKVI                    | RATIN                                | IG .                   |                                  | RANGE                         | ELEMENT        |

## **Hydrogen Regulators**





| 1 | AUTO875<br>H2 VEHICLES |     | and the second s | ACCESS TO<br>CARTRIDGE  |       | The second se |                    |                |
|---|------------------------|-----|--|-------------------------|-------|---|--------------------|----------------|
|   | PORT SIZE              | cv  | SERVICE  | MAX<br>INLET            | SEAT  | MAX<br>OUTLET   | SENSING<br>ELEMENT | VENTING OPTION |
|   | 1/4"                   | 0.5 | Gas  | 875 bar<br>(12,690 psi) | PEEK™ | 20 bar<br>(290 psi)   | Piston             | Non            |

| RF1034<br>H2 REFUELLING |     | EASY TO ACCESS   PISTON- OPTIONAL CV 0.3 FOR FAST SEAT CARTRISGE   SENSED   AUTO CONTROL   REFUELLING |                           |       |                           |                    |                |  |
|-------------------------|-----|---|---------------------------|-------|---------------------------|--------------------|----------------|--|
| PORT SIZE               | CV  | SERVICE   | MAX<br>INLET              | SEAT  | MAX<br>OUTLET             | SENSING<br>ELEMENT | VENTING OPTION |  |
| 3/8"<br>9/16"           | 0.3 | Gas   | 1,034 bar<br>(15,000 psi) | PEEK™ | 1,034 bar<br>(15,000 psi) | Piston             | Non            |  |





|  | SS690<br>SUBSEA | SUITABLE FOR ANTI-TAMPER ELGILOY® OPTIONAL ROV DEEP WATERS LOCKING CAP SPRING HANDWHEEL |         |                         |         |                         |                    |                |  |
|--|-----------------|---|---------|-------------------------|---------|-------------------------|--------------------|----------------|--|
|  | PORT SIZE       | CV  | SERVICE | MAX<br>INLET            | SEAT    | MAX<br>OUTLET           | SENSING<br>ELEMENT | VENTING OPTION |  |
|  | 3/8"            | 0.1   | Liquid  | 690 bar<br>(10,000 psi) | Ceramic | 690 bar<br>(10,000 psi) | Piston             | Non or<br>Self |  |

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

|  | SS414<br>SUBSEA | SUITABLE FOR ANTI-TAMPER ELGILOY® OPTIONAL ROV<br>DEEP WATERS LOCKING CAP SPRING HANDWHEEL |         |                        |         |                        |                    |                |
|--|-----------------|--|---------|------------------------|---------|------------------------|--------------------|----------------|
|  | PORT SIZE       | cv   | SERVICE | MAX<br>INLET           | SEAT    | MAX<br>OUTLET          | SENSING<br>ELEMENT | VENTING OPTION |
|  | 3/8" 2          | 2.0  | Gas     | 414 bar<br>(6,000 psi) | PEEK™   | 250 bar<br>(3,625 psi) | Piston             | Non or<br>Self |
|  |                 |  | Liquid  |                        | Ceramic |                        |                    |                |



## **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 controlled precision.

Also ideal for topside applications or unmanned platforms.

**ASK FOR DETAILS** 

# **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.







# 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 | 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.

#### How do I view prices online?

You will require an online account to view pricing on our website. Please visit <a href="www.pressure-tech.com">www.pressure-tech.com</a> 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 <a href="mailto:accounts@pressure-tech.com">accounts@pressure-tech.com</a>.

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.





