Process, Industrial & Utility

Edition two



# ashford instrumentation

Ashford Instrumentation Ltd was established in 2003 and specialises in Pressure, Temperature,
Level and Flow Measurement. We work in conjunction with many of the largest organisations within
the instrumentation field and can therefore find a solution to meet just about any measurement
requirement you may have. Our Technical Team has a wealth of application knowledge upon
which we can draw when the process demands.

# HVAC, Process, Industrial & Utility

Ashford Instrumentation are specialists in the supply of Measurement Instruments to markets as diverse as Heating, Ventilation, Air Conditioning (HVAC), Pharmaceutical, Chemical, Petrochemical, Pneumatic, Hydraulic, Food, Dairy, Power Generation, and Water Treatment.

Our extensive product range incorporates both Mechanical and Electronic Pressure and Temperature Instrumentation in addition to Continuous Level Measurement. From our offices based in Ashford Kent, we offer a wealth of application and product knowledge experience. Exporting to over 60 countries worldwide we are small enough to care and big enough to cope with any requirement.



#### HVAC, Process, Industrial & Utility

Pressure, Level, Temperature and Flow Instrumentation for the Process and OEM Industries



#### Diving, Marine & Subsea

Depth, Pneumo, Caisson & Submersible Instrumentation for the Commercial Diving, Marine and Subsea Industries

Specifications and photographs shown in this brochure are representative of our engineering capabilities at the time of printing.

We reserve the right to change any product or product details without prior notice. Images, text and product descriptions in this brochure have been used in good faith and to the best of our knowledge do not infringe good business practice. Please contact our sales office for full technical specification of all items prior to ordering.

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#### Binder Instrumentation

A comprehensive range of Binder Test Points, Sampling Probes and Test Point Instruments for the HVAC Industry. Products include either Brass or Stainless Steel Test Points with 1/4" & 1/2" BSPT male process threads as well as Mechanical Pressure Gauges and Thermometers for accurate process measurement.

**Test Point** 





measurement in pipelines.

Pressure Gauge designed to be inserted into Test Points for pressure measurement readings.

Designed to create permanent access to pressure and temperature

Available in Brass or Stainless Steel Bodies

Nominal Sizes 35mm (Short) or 75mm (Long)

2.5" Diameter Dial. Compensated Case (additional case venting not required)

Maximum Working Pressure 35 Bar, Maximum Temperature 60°C

- 100% Glycerine Filled Case
- Accuracy Class 1 (+/-1% Full Scale Value)
- Available Probe Lengths 38mm or 100mm
- Optional Sampling Gauge Available With Open/Shut off Gauge Cock and 1 metre Hose

# **Digital Binder Gauge**

Pressure gauge designed to be inserted into Test Points for pressure measurement readings.

- 2.5" Diameter Dial
- 9v Battery Powered
- LCD Display With Back Light Function
- Accuracy Class 0.5 (+/-0.5% Full Scale Value)
- Available Probe Lengths 38mm or 100mm

# **Binder Sampling Probe**

Binder Probe designed to be inserted into Test Points for draining and sampling.

- Available with 38mm or 100mm Probe Lengths
- Integral Shut Off Valve
- 1 metre Reinforced Hose (other lengths available on request)

## **Digital Binder Thermometer**

Thermometer designed to be inserted into Test Points for measurement readings.

- Battery Powered With Open Circuit Warning Displays
- Supplied With Probe 108mm x 3.3mm and 500mm lead
- 22mm Clear LCD Display
- Resolution 0.1 °C and Accuracy +/- 0.1 °C

#### Binder Test Kits

Binder Test Point Kits provide commissioning, installation and maintenance engineers everything they need to monitor pressure and temperature via existing Binder Test Points installed on site.

## **Standard Binder Test Kit**

Pressure and temperature kit with probes designed to be inserted into Test Points for measurement readings.

2 x Mechanical Gauges (choose from standard ranges)

- 1 x Digital Binder Thermometer
- 1 x Short and 1 x Long Binder Test-plugs
- 1 x Bottle Lubricating Soap
- 1 x Carry Case



# **Digital Binder Test Kit**

Pressure and temperature kit with probes designed to be inserted into Test Points for measurement readings.

2 x Digital Gauges (choose from standard ranges)

- 1 x Digital Binder Thermometer
- 1 x Short and 1x Long Binder Test-plug
- 1 x Bottle Lubricating Soap
- 1 x ABS Carry Case





# HVAC, Fire Sprinkler Pressure Gauges

An extensive range of pressure instrumentation for Plant Room and HVAC applications, these include:

Pressure Gauges, Altitude Gauges, Meters Water Gauges, Boiler Gauges, Fire Sprinkler System Gauges, Pressure Gauges are

available in sizes from 40mm to 300mm in a variety of mounting arrangements.



#### **HVAC Gauge**

For use in Heating and Ventilation applications.

- Available in 100mm or 160mm diameter dial
- Black Steel Case and Brass Wetted Parts
- Accuracy Class 1.6 (Accuracy Class 1 available upon request)
- Bottom or Back Entry
- Optional Resettable Red Marking Pointer on Window
- Stainless Steel Case Version for Outdoor Applications



### Fire Sprinkler Gauge and No-Loss Connector

For use in Sprinkler and Fire Suppression systems.

- Available in 100mm & 160mm Diameter, Glycerine Filled Case
- Stainless Steel Case and Brass Wetted Parts
- Accuracy Class 1.6 (or Class 1 for Premium Range)
- Bottom Entry
- Optionally Supplied with 1/2" BSPT male No-Loss connector



# **Combined Pressure and Temperature Gauge**

Dual pressure and temperature measurement in one instrument. Ideal for HVAC applications.

- Available in 80mm Diameter Dial
- Black Steel Case and Brass Wetted Parts
- Ranges 0-4 Bar/120 °C, 0-6 Bar/120 °C and 0-10 Bar/200 °C
- Bottom or Back Entry, 1/2" BSPT Male Connection
- Supplied with Brass Non-Return Valve



# 200mm - 300mm Diameter Gauge

For use in Boiler systems or to provide ease of reading from distance.

- Available in 200mm or 300mm Diameter Dial
- Black Steel Case and Bezel
- Dry Case
- Brass Wetted Parts
- Accuracy Class 1
- Bottom or Back Entry

#### **HVAC Mechanical Thermometers**

Mechanical thermometer range for use in HVAC and plant & boiler room applications. Many items available from our extensive stock. Bottom and back entry options available to suit common industry requirements.

# **Standard HVAC Thermometer (for Internal Use)**

For use in Heating and Ventilation applications.

- Available in 63mm, 100mm or 160mm Diameter Dial
- Black Steel Case and Chrome Bezel
- Ranges -30/+60 °C, 0-120 °C, 0-160°C or 0-250°C
- Bottom or Back Entry Direct Mount
- Supplied with Brass Pocket, Immersion lengths 63mm or 100mm
- 1/2" BSP Male Connection



#### **Weatherproof HVAC Thermometer (for External Use)**

For use in Heating and Ventilation applications.

- Available in 63mm, 100mm or 160mm Diameter Dial
- Stainless Steel Case with IP65 Protection
- Optional Glycerine Filled Case for Greater Protection
- Bottom or Back Entry Direct Mount
- Supplied with Stainless Steel Pocket
- 1/2" BSP Male Connection



### **Standard Pipe Clip Thermometer**

Designed for pipe surface temperature measurement applications.

- Available in 63mm Diameter Dial
- Galvanised Steel Case and Bezel
- Ranges -30/+60 °C, 0-160 °C or 0-400°C
- Universal Spring Mounting for Pipe Sizes 1/2" to 1.5" Outer Diameter



# Lagged Pipe Clip Thermometer (for Internal Use)

Designed for lagged pipe surface temperature measurement applications.

- Available in 80mm Diameter Dial
- Stainless Steel Case and Bezel
- Ranges -20/+80 °C or 0-120°C (others on request)
- 55mm lagging neck extension (others on request)





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#### Gauge Accessories

Ashford Instrumentation stock and supply a large range of accessories to compliment our range of Pressure Gauges. From Pressure or Temperature isolation, through to Thread Adaptors, Case Protection or Bespoke Dial Printing.



#### **Gauge Cock**

Cost effective method of isolating a pressure gauge.

- Brass Body
- Rated to 20 Bar and 60°C Temperature
- 1/4," 3/8," 1/2" BSP Connections
- Available in Male and Female Configurations

#### **Syphon**

Ideal for condensing steam and process temperatures prior to reaching a pressure gauge.

- Available in Brass, Mild Steel or Stainless Steel
- 1/4", 3/8" and 1/2" BSP connections
- Some Designs Rated up to 70 Bar & 300°C Depending on Material and Design



Designed for isolating process from instruments. Reduced bore design.

- Available in Brass, Carbon Steel, Stainless Steel and Bronze
- 1/4," 3/8," 1/2" BSP Connections
- 1/4 " turn locking handle
- WRAS and Gas Approved Options

#### 2 and 3 Piece Ball Valve

Designed for isolating process from instruments. Full bore design.

- Available in Brass, Carbon Steel, Stainless Steel and Bronze
- 1/4" to 4" BSP Connections
- 1/4" turn locking handle
- WRAS and Gas Approved Option

# **Rubber Gauge Cover**

Designed for protection of pressure gauges from impact damage whilst in service or transit.

- Available in 50mm, 63mm, and 100mm Diameter Pressure Gauges
- Open or Closed Back Design
- Black Colour as Standard. (other colours upon enquiry)

# Gauge Accessories

#### **No-Loss Connector**

Low cost check valve designed to allow removal of pressure gauge without loss.

- Brass Body
- Rated to 16 Bar and 40°C
- 1/2" BSPT Self-Sealing Process Connection
- Instrument Connection 3/8" BSPP Female

#### **Alarm Contact Modules**

Electrical alarm contacts fitted to Pressure and temperature instruments.

- Designed to Open or Close a Circuit When Set Point Reached
- Ideal For Setting High or Low System Alarms
- Single Action or SPDT Versions available





#### **Custom Dials**

Personalise instruments with company name or logo.

- Any Colour or Complexity
- Single Dial or Multiple Quantities
- Colour Segments and Markings Also Available

# 250 0 Hughes Beatty

#### **Pressure Snubber**

Designed to effectively reduce and protect the instrument against pressure pulsations and pressure spikes.

- Available in Brass or Stainless Steel
- Pressure Ratings up to 400 Bar
- Throttle Screw for Easy Adjustment
- Available in 1/4", 3/8", 1/2" BSP or NPT Connections

# **Over Range Protector**

Adjustable over range protector designed to protect instruments from excessive pressure.

- Available in Stainless Steel or Monel
- Adjustable Ranges from 0.2...350 Bar
- Setting Screw Protected With Tamper Proof Cap
- Available in 1/4", 1/2" BSP or NPT Connections







# Hydraulic & Pneumatic Pressure Gauges

Pressure Gauges for the Hydraulic, Pneumatic and Compressor Markets available in a variety of sizes and thread connections. Glycerine filled options available to dampen the gauge on applications where vibration or pulsation is present.



#### 40mm - 63mm Standard Gauge

For use in Pneumatic applications.

- Available in 40mm, 50mm or 63mm Diameter Dial
- Black Steel Case and Brass Wetted Parts
- Accuracy Class 2.5 (40mm or 50mm) or Class 1.6 (63mm)
- Push Fit Acrylic Window
- Bottom or Back Entry
- Custom logo dials (Available subject to quantity)



#### 40mm - 160mm Standard Gauge

For use in Hydraulic applications.

- Available in 40mm, 50mm, 63mm, 100mm or 160mm Diameter Dial
- Stainless Steel Case and Glycerine Filled
- Brass Wetted Parts
- Accuracy Class 2.5 (40mm or 50mm) or Class 1.6 (63mm, 100mm and 160mm)
- Bottom or Back Entry



# 100mm - 160mm HD Standard Industrial Gauge

For use in Hydraulic applications.

- Available in 100mm or 160mm Diameter Dial
- Stainless Steel Case with Removable Bezel
- Dry Case Fillable
- Brass Wetted Parts
- Accuracy Class 1
- Bottom or Back Entry

# Process Industry Gauges

Pressure Gauges for the Hydraulic, Pneumatic and Compressor Markets available in a variety of sizes and thread connections. Glycerine filled options available to dampen the gauge on applications where vibration or pulsation is present.

#### **50-250mm Process Industry Gauge**

Suitable for applications gaseous and non-viscous liquid media

- Available in 50mm, 63mm, 100mm, 160mm, 200mm and 250mm Diameter Dial
- 304 Stainless Steel Case (316 Stainless Steel option)
- 316 Stainless Steel Wetted Parts
- Fillable Case
- Accuracy Class 1.6 (50mm & 63mm)
   Accuracy Class 1 (100mm, 160mm, 200mm & 250mm)



## 100-160mm Special Industries Gauge

Specifically designed for industries with harsh or aggressive environmental conditions such as Chlorine and Dosing applications. To offer increased protection against corrosion.

- Available in 100mm or 160mm Diameter Dial
- 304 Stainless Steel Epoxy Coated Case and Monel Wetted Parts
- Accuracy Class 1
- Bottom Entry Connection only
- Optional Alarm Contacts Can Be Fitted



# 63mm-160mm ATEX or NACE Compliant Gauges

ATEX or NACE options are available on our Process Industry gauges.

- Available in 63mm, 100mm or 160mm Diameter Dial
- Option of NACE with Stainless steel or Monel Wetted Parts
- Option of ATEX for Explosive Areas, Supplied with Zone Certificate

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## Safety Design Pressure Gauges

Safety designed Pressure gauges are gauges that meet the safety designations of the European Standard EN837 for gaseous media application provide the user ultimate safety in the unlikely event of a failure. Degreased options available for use on oxygen and other special gases.



#### 63mm S2 Safety Gauge

Designed to meet the safety designation of S2 as per EN837-1. Suitable for gaseous media.

- 63mm Diameter Dial
- Stainless Steel Case and Brass Wetted Parts
- Non-splinter Window
- Accuracy Class 1.6. Ranges up to 400 Bar (6000 PSI)
- Bottom or Back Entry
- Blow Out Protection



#### 63-160mm S3 Full Safety Pattern Gauge

Designed to meet the safety designation of S3 as per EN837-1. Suitable for gaseous media.

- 100-160mm Diameter Dial
- Stainless Steel Case and Wetted Parts
- Internal Solid Baffle Wall and Full Blowout Back
- Laminated Safety Glass Window
- Accuracy Class 1.6 (63mm Dial), Accuracy Class 1 (100mm and 160mm Dial)
- Pressures up to 60,000 PSI
- Bottom or Back Entry
- Glycerine Filling Available on Certain Models



#### **Turret Style Pressure Gauge**

Process Industry pressure gauge.

- 4.5" diameter Phenolic Case
- Stainless Steel or Monel Wetted Parts
- Internal Solid Baffle Wall and Full Blowout Back
- Accuracy Class 0.5 as per ASME
- Bottom or Back Entry

# Low Pressure Capsule Gauges

Capsule gauges for the measurement of low pressure gas or air. Available in a range of process connections, mountings and materials.

#### 63mm-100mm Standard Capsule Gauge

Suitable for dry gaseous media, not suitable for liquid measurement.

- 63mm or 100mm Dial Non-Fillable
- Ranges 2.5....1000 mBar Pressure or Vacuum
- Painted Steel Case and Brass Wetted Parts
- Typical Accuracy Class 2.5 (-/+2.5% Full Scale)
- Bottom or Back Entry



#### **63-160mm Premium Capsule Gauge**

Suitable for dry gaseous media, not suitable for liquid measurement.

- 63mm, 100mm or 160mm Dial Non-Fillable
- Ranges 10....1000 mBar Pressure or Vacuum
- Stainless Steel Case and Wetted Parts
- Accuracy Class 1.6 (-/+1.6% Full Scale)
- Bottom or Back Entry



# Absolute Pressure Gauges

The Absolute Pressure scale reads from full vacuum (zero absolute) upwards, as opposed to Gauge Pressure which has a zero-point equal to current atmospheric conditions.

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# Absolute/Torr Gauge

Barometrically compensated to eliminate reading errors caused by changes in atmospheric pressure. Suitable for dry gaseous media only.

- 100mm or 160mm Dial Non-Fillable
- Ranges 25....1000 mBar/ 20....76/0 Torr
- Stainless Steel Case and Brass Wetted Parts
- Accuracy Class 2.5 (-/+2.5% Full Scale)
- Bottom or Back Entry





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# Hygienic/Chemical/Diaphragm Seals

Diaphragm and Hygienic Seals are used on applications where, for hygienic reasons, the process media cannot be allowed to enter a dead leg, or on applications where the process media is not compatible with the wetted parts material of the instrument or may block, solidify or coat the measuring element inside the instrument.



#### **Tri-Clamp Hygienic Diaphragm Seal**

- Stainless Steel Body and Wetted Parts
- Suitable for Pressures up to 40 Bar Maximum
- Direct or Capillary Mount Options Available
- Standard Clamp Sizes 1", 1.5", 2" (other sizes available upon request)



#### **Screwed Hygienic Diaphragm Seal**

- Stainless Steel Body and Wetted Parts
- Suitable for Pressures up to 40 Bar Maximum
- Direct or Capillary Mount Options Available
- Standard SMS, IDF, RJT and DIN Connections



#### **Inline Hygienic Diaphragm Seal**

- Stainless Steel Body and Wetted Parts
- Screwed or ANSI and DIN Flanged Connections
- Direct or Capillary Mount Options Available



#### **Homogeniser Diaphragm Seal**

- Stainless Steel Body and Wetted Parts
- Direct or Capillary Mount Options
- Supplied With or Without Retaining Flange
- Pressure Ranges up to 1600 Bar



# **Threaded Flush Diaphragm Seal**

- Stainless Steel Body and Wetted Parts
- Direct or Capillary Mount Options
- Available in 1/2", 3/4", 1", 1.5", 2" BSP Male Connections



# Flanged Diaphragm Seal

- Stainless Steel Body
- Many Different Wetted Parts Materials Available
- Direct or capillary mount options
- Available in ANSI and DIN Rated Flanged Connections

# Chemical/Diaphragm Seals

Diaphragm seals suitable for a wide variety of applications media conditions. Chemical, Hygienic, Pharmaceutical, Oil and Petrochemical, Paper Industry, Water, Aggregate and many more. Extensive array of materials and connections. Direct or capillary mounted to the instrument.

## **Bolted Body Diaphragm Seal**

- Stainless Steel Body and Wetted Parts
- Threaded or Flanged Connections
- Direct or Capillary Mount Options
- Other Options Include Alternative Wetted Parts



### **Welded Body Diaphragm Seal**

- Compact Design
- Stainless Steel Body and Wetted Parts
- Threaded Connections. Direct or Capillary Mount Options
- Other Options Include Alternative Wetted Parts

# Paper and Pulp Industry Diaphragm Seal

- Stainless Steel Body and Wetted Parts
- DN48 Connection and Loose Retaining Flange
- Suitable for Ranges up to 40 Bar



# **Piston Operated Seal**

- Long Service Life, internal Piston Design (no easy to damage diaphragm)
- Specially Designed for use on Sludge, Slurry Drilling Water and Cement
- Stainless Steel Body and Wetted Parts
- Suitable for High Pressures up to 600 Bar
- Other Options Include Alternative Wetted Parts

#### **Grout Seal**

- Low Cost Design for Grout, Cement and Tunnelling Applications
- Brass Body and PVC Probe (Stainless Steel Body Option)
- Suitable for Pressures 4...40 Bar

# **PVC Diaphragm Seal**

- PVC body and Stainless Steel with PTFE/PFA Lined Diaphragm
- Suitable for Pressures 10 Bar Maximum
- Direct Mount Only



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### Diaphragm Gauges

Mechanically operated Diaphragm Seal Pressure Gauges for applications where the process media may block or corrode a convential Bourdon tube. Also Ideal for low pressure measurementon liquids where high overload protection is required.



#### **Diaphragm (Schaeffer) Gauge**

Suitable for highly viscous or corrosive media or solids in suspension.

- Mechanical Link from Diaphragm to Movement Requiring no Fill Fluid
- 100mm or 160mm Dial Fillable Case
- Ranges 25 mBar to 25 Bar, Pressure or Vacuum Scales
- Accuracy Class 1.6 (-/+1.6% Full Scale)
- Bottom or Back Entry with Screwed or Flanged Process Connections
- Stainless Steel, PTFE lined or other Wetted Parts Available
- Option of up to 10 x Over Range Protection (Range Dependant)

# Electrical Gauge Accessories

Electric alarm contacts make provision to open or close a circuit at predetermined points. This permits the potential for audible or visual alarms, or to start/shutdown machinery or pumps etc. Transmitter options with typically 4-20 mA output, assist in remote reading applications or for process control. ATEX options are also available for intrinsically safe areas.



# Gauges and Thermometers with Alarm Contacts and Output Signals

Single, double or treble electrical alarm contacts can be supplied fitted to many gauges and thermometers. In addition to electrical output signal transmitters. There are 3 basic designs.

### **Output & Switch Contacts for Gauges and Thermometers**

Single, double or treble electrical alarm contacts can be supplied configured to either make on rise (break on fall) or break on rise (make on fall). There are 3 basic designs:

# **Electromechanical (Magnetic Spring Contact)**

Magnetic spring contacts have a permanent magnet screwed to the red setting pointer on the contact carrier arm. To close the circuit the contact pin is attracted by the magnet as it is carried to the contact point by the instrument indicating pointer and the contact closes. The snap action effect of the magnet reduces arcing between the contacts allowing for a greater switch rating. Due to the increased contact force, the magnetic contact is also less sensitive to vibration.



#### **Inductive Contact**

Inductive contacts are used in connection with a switching amplifier which supplies the control head with direct voltage. As the control flag mounted on the instrument indicating pointer reaches the control head the internal resistance in the control head increases. This causes the current to change and is used to control the switching amplifier. The amplifier converts the input signal into a binary output signal. Due to the non-contacting switching function this design of switch offers high switching accuracy and long service life. This design is particularly recommended for applications where a high switching frequency or high reliability is required. Assuming a suitable isolating switching amplifier is used, this instrument can be used on intrinsically safe applications.

# 4 – 20mA Transmitter Output

Standard Bourdon Tube Pressure Gauge with Transmitter Module Giving 4-20mA output.

Designed to measure pressure differential between separate pressure systems. Commonly used in filter applications or for tank level monitoring in sealed tanks. Direct or remote mount (via capillary) with a variety of threaded or flanged process connections and wetted parts materials.

#### **Piston Style Differential Pressure Gauge**

- 80mm or 100mm Dial (Compact Design)
- Maximum Static/Overpressure 100 Bar
- Direct Mount Side Entry Connections
- Accuracy class 3 (-/+3% Full scale)
- Options Include Panel Mounting, 250 or 400 Bar Maximum Static/Overpressure and 1 or 2 Electrical Reed Switches



# "Opposing Tube" Differential Pressure Gauge

- 100mm Dial
- Opposing Bourdon Tubes Measuring System
- Black Steel or Stainless Steel Case With Brass Wetted Parts
- Maximum Static Pressure Equal to Indicated Range
- Direct Mount Bottom or Back Entry
- Optional "Duplex" Version With Dual Pointer Indicating Individual Inlet Pressures
- Refrigerant Scale and Glycerine Filled Case Options Available



# "Internal Diaphragm" Differential Pressure Gauge

- 100mm Dial with Single Diaphragm Movement
- Stainless Steel Case and Brass or Stainless Steel Wetted Parts
- Maximum Static Pressure/Overpressure Typically 25 Bar
- DP Ranges From 250 mBar to 25 Bar
- · Direct Mounts, Bottom Entry
- Options Including Surface or Panel Mount and Alarm Contacts



# **High Static Pressure Differential Pressure Gauge**

- 100mm & 160mm Dial with Single/Dual Diaphragm Movement
- Stainless Steel Case Wetted Parts
- Maximum Static Pressure/Overpressure up to 400 Bar
- DP Ranges From 100 mBar to Typically 25 Bar
- Direct Mount Bottom Entry Connections
- Options of Surface or Panel Mount Flanges, Pipe Mount Bracket





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#### Tank Level Measurement

Tank liquid level instruments for a variety of applications including water & diesel tanks, chemical storage, fuel oil and food/drink. Pump up or push to read options provide readings on demand. Instruments with continuous reading provides the flexibility of constant measurements for real time information. Gauges can be mounted on the tank or remotely up to 200 metres away on certain designs.



#### **Float Tank Contents Gauge**

A simple and effective way to measure tank content level via the top of a tank. The float reacts to liquid level and directly transfers this to the indicating scale.

- Low Cost Unit with Simple Full to Empty Scale
- 80mm Dial, ABS Plastic Case
- Polyethylene High Density Float and Polyamide Cord
- Drop Lengths 18", 24", 30", 36", 42", 48", 60" and 72"
- Top of Tank Mount Only



#### **'Bubbler' Tank Gauge with Hand Pump**

Hydrostatic gauge for use on water and heating oil tank level measurement. Manual handpump operation to read tank contents.

- 160mm diameter or square 180mm x 180mm version Gauge
- Manual "pump to read" operation with integral handpump
- For tank depths up to 8 metres. Gauge mounted up to 30m from tank
- Tank top balance chamber fitting 1" or 1.5" BSP



# Battery/Mains Operated Tank Gauge Contents Gauge

For use on water and heating oil tank level measurement.

- 160mm Diameter or Square 180mm x 180mm Version Gauge
- Battery "Push to Read", Battery "Continuous Read" with Adjustable Sampling Timer or Mains "Continuous Read" Options
- For tank depths up to 8 metres. Gauge Mounted up to 200 metres from tank
- Through Tank Top Balance Chamber Fitting 1" or 1.5" BSP



# **High Level Overfill Alarm System**

For use primarily with diesel, oil or water tanks.

- Helps the User Avoid Liquid Spillage with Continuous High-Level Tank Monitoring
- Mains Powered Simple Installation
- Built in Sounder/Alarm with Mute Function
- Ideal for Tanks Without Continuous Level Measurement or When Filling Point is Remote From The Tank

# Digital Pressure Gauges

LCD digital display pressure gauges with a wide range of accuracies. These precision instruments can be used in the field as a digital replacement for conventional dial pressure gauges or as master reference instruments to which lower accuracy instruments can be calibrated against. As well as giving local indication, some versions have the option of a switch or transmitter output.

# **Battery Operated Digital Pressure Gauge**

Ideal for use in hydraulic, pneumatic, process industry and many more applications.

- 63mm Dial Housed in Protective Rubber Cover as Standard
- 9v Alkaline Battery Operated (Battery Supplied)
- 4-Digit LCD Display with Auto-Off Function
- Accuracy 0.5% Full Scale Value

# Mains Powered Digital Pressure Gauge with Output

Multifunction digital instrument with electrical output.

- 100mm Dial with Stainless Steel Case and Wetted Parts
- 4...20mA Output Signal and 2 x Switches NPN or PNP
- 5-Digit LCD Display
- Accuracy 0.1% <6000 PSI or 0.25% >6000 PSI Full Scale Value

#### **Differential Pressure Transmitter**

Suitable for air, liquid and oil applications.

- Aluminium Body with Plastic Cover
- Stainless Steel Wetted Parts
- 4 Digit LCD Display Option, 4..20mA Output
- Accuracy -/+ 2.5% span
- Static Pressures 3, 5, 10, 20, 50, 100, 200, 500, 700 and 1000 Bar
- Minimum DP Range 10% of Static Range







#### Submersible Level Transmitters

Designed to provide level measurement in bore holes or inside liquid tanks by measuring the liquid level head as a pressure and providing an electrical signal back to a remote mounted display or plc.

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#### **Submersible/Liquid Level Transmitter**

Suitable for vented tanks, bore holes and open water applications.

(ATEX options available)

- Stainless Steel Housing
- Typically Available in Ranges from 0-100 mBar to 25 Bar (approximately 1m Water to 250m Water)
- Accuracy 0.35% Span (0.5% Span ranges below 400 milliBar)
- 4...20mA, 0-10V, Output Signal Options
- PUR Vented Cable







#### Electronic Pressure Transmitters

Pressure Transmitters with the ability to read extremely high pressure and high accuracy applications. Many of our transmitters can be supplied with optional local display and a wide range of process connections are also available. Whilst 4-20mA is the most common output, many others are commonly available.



#### **Pressure Transmitter**

Fixed range general purpose transmitter. (ATEX options available)

- Compact Design with Stainless Steel Housing
- Available in Ranges from -1...4000 Bar
- Accuracy 0.5% of Span
- 4...20mA, 0-10V, 0-5 V, 1-5V, 0.5 to 4.5V Output Signal Options



Suitable for medical technology, hydraulics, pneumatics testing and laboratory applications.

- High Accuracy
- Available in Ranges from -10 mBar...2000 Bar
- Stainless Steel Body & Wetted Parts
- 4...20mA, 0-10V Output Signal Option



Suitable for automotive and industry applications.

- Stainless Steel Housing and Wetted Parts
- 4...20mA or Voltage Output Options
- Pressure Ranges up to 4000 Bar
- Accuracy -/+ 0.5% Span

#### **Marine Pressure Transmitter**

Designed specifically for the shipbuilding and offshore industry (ATEX options available).

- DNV-GL approval, Stainless Steel Housing
- Available in Ranges from -400 MBar...600 Bar
- Accuracy -/+ 0.25% Span
- 4...20mA output (others available upon enquiry)

# **Subsea Pressure Transmitter**

Designed specifically for subsea applications to measure sea water depth or system pressures subsea.

- Maximum 1000 metres Seawater Depth
- Stainless Steel Housing,
- Available in Ranges From 1-50 to 1700 Bar
- Accuracy -/+ 0.25% Span
- 4...20mA Output, Flying Lead or Wetcon Electrical Connection
- Thread Connections or Protective Cap

# Process Industry Mechanical Thermometers

Mechanical dial thermometers suitable for a wide variety of industries. Available in bi-metallic or gas filled (for faster response, elevated temperatures or remote mounting with capillary) designs. High IP rating makes them ideal for external use and many options are available with liquid filled case.

#### **Stainless Steel Thermometer**

Suitable for use in HVAC, Process, Food and Beverage and Oil & Gas industries. Solid drilled from bar stock materials.

- Available in 63mm, 100mm or 160mm Diameter Dial
- Stainless Steel Case and Bezel IP65 Rated (IP67 Upon Request)
- Accuracy Class 1, Ranges From -200 °C to +800°C
- Bottom or Back Entry Direct, Surface or Panel Mount Options
- Glycerine or Silicon Oil Filled Case Options
- ATEX Option For Intrinsically Safe Areas Available

#### **Every Angle Thermometer**

Suitable for use in Process, Food and Beverage and Oil & Gas industries.

- Available in 100mm or 160mm Diameter Dial
- Dial Rotatable Through 180° for Easy Reading
- Stainless Steel Case and Bezel IP65 Rated (IP67 Upon Request)
- Accuracy Class 1, Ranges From -200 °C to +600°C
- Glycerine or Silicon Oil Filled Case Options
- ATEX Option for Intrinsically Safe Areas Available

# **Remote Mount Capillary Thermometer**

Suitable for use typically in Process, Food and Beverage and Oil & Gas industries.

- Available in 63mm, 100mm or 160mm Diameter Dial
- Stainless Steel Case and Bezel IP65 Rated (IP67 Upon Request)
- Accuracy Class 1, Ranges from -200 °C to +800°C
- Surface and Panel Mount Options
- Immersion Lengths from 63mm to 900mm
- Stainless Steel Capillary (Lengths from 1 metre)
- Options include Glycerine or Silicon Filled Case and ATEX

#### **Surface Contact Thermometer**

Suitable for use in Process, Food and Beverage and Oil & Gas industries

- Available in 100mm or 160mm Diameter Dial
- Stainless Steel Case and Bezel IP65 rated (IP67 Upon Request)
- Accuracy Class 1, Ranges From -200 °C to +800°C
- Bottom or Back Entry Direct Mount
- Fixed or Adjustable Length Neck Extension
- Glycerine or Silicon Oil Filled Case Options











#### Electronic Temperature

Our range of digital thermometers, transmitters, temperature probes and assemblies are ideal for such industries as Chemical, Petrochemical, Pharmaceutical, Dairy, Brewery, Utility, Power Generation and Pneumatics & Hydraulic applications.



#### Thermocouple and RTD Probe Assemblies

Suitable for use in Process, Food and Beverage and Oil and Gas industries.

- Full range of Simplex or Duplex Platinum Resistance Thermometers and Thermocouple Sensors
- Supplied with Flying Leads, Terminal Blocks or Transmitters
- Head and Probe Assemblies With Full Range of Connection Heads
- Supplied with or without Thermowells
- ATEX/Exd Options Available



# Hygienic Thermocouple and RTD Probe Assemblies

Suitable for use in Food, Beverage and Pharmaceutical industries.

 Options as per above except with a full range of Hygienic Connections



# **Head Mounted Temperature Transmitters**

Suitable for use with our range of Thermocouple and RTD Temperature Probe Assemblies.

- OEM, Fixed Range or Programmable Options
- Single or Dual Input, (RTD or Thermocouple)
- 4...20mA or 0-10v Output
- Galvanic Isolation
- HART, ATEX Options



### **DIN Rail Mounted Temperature Transmitters**

Suitable for use with our Full Range of Electronic Temperature Sensors.

- Specification generally as per above Head Mounted Version
- Simple and easy installation into rail



#### **Infrared Thermometer**

Non-Contact Digital Thermometer with The Option of a Plug-in Type-K Thermocouple Probe.

- Infrared Portable Gun Battery Operated
- Optional Type K Thermocouple (Surface Contact or Penetration Type)
- Clear LCD Display
- Infrared Range Typically -50/+500°C
- Can be supplied individually or Part of a Kit

# Temperature Pockets and Thermowells

A range of Pockets/Thermowells are available to suit our Mechanical Thermometers and Electronic Probe Assemblies. When fitted to the process, these allow the removal of the instrument without shutting down or draining the line or plant.

#### **Fabricated Pockets**

Suitable for use with our full range of Mechanical or Electronic Temperature instruments. Fabricated pockets are generally a 3-piece design consisting of tube, connection and end cap. Available in screwed or flanged process connections. Suitable for pressures up to typically 25 Bar max. with no velocity in the pipeline.

- Typically Available in Brass, 304 or 316 Stainless Steel
- · Customised Immersion Lengths with Parallel Profile
- Screwed or Flanged Process Connections
- Bespoke Customised Neck Extensions Optional
- Optional PTFE Coating Available



Suitable for use with our full range of Mechanical or Electronic Temperature instruments. Solid Drilled Thermowells are machined from bar stock and suitable for higher pressures. A range of Screwed or Flanged connections are available, and WAKE Frequency Calculations can be offered instances of High Line Flow/Velocity.

- Suitable for Higher Pressure Applications
- Available in Brass, Stainless Steel and Some Exotic Materials
- Customised Immersion Lengths
- Parallel, Tapered or Stepped Profiles Available
- Bespoke Customised Neck Extensions Optional
- Optional PVC/PVA Coatings and Other Materials Available

# **Hygienic Pockets**

Suitable for use in Food, Beverage and Pharmaceutical industries.

- Fabricated in 316 Stainless Steel
- Hygienic Tri-Clamp Process Connections (other connections available on request)
- Customised Immersion Lengths
- High Polish Finish

# Flanged Thermowells

Suitable for use with our full range of Mechanical or Electronic Temperature Instruments.

- Available in 304 or 316 Stainless Steel
- ANSI (ASME) or DIN Flanged Process Connections
- Customised Immersion Lengths
- Parallel, Tapered or Stepped Profiles Available
- Bespoke Customised neck Extensions Optional
- Optional PVC/PVA Coatings and Other Materials Available









#### Valves and Manifolds

Instrumentation Needle Valves are used for Isolation and Throttle Control. Valve Manifolds provide the additional opportunity to drain trapped pressure within the system via a drain plug. Equalisation of pressure differential can be achieved with the 3 or 5 valve variety.



#### **Standard Needle Valve**

Ideal for isolation, regulation and throttling of pressure instrument.

- Stainless Steel or Monel Body Manufactured From Bar Stock
- Pressure Rating 6,000 PSI (414 Bar) or 10,000 PSI (700 Bar)
- T-Handle Operation (Lockable Handle option available)
- Available in Male or Female Threads



#### **In-Line Manifold**

Designed for isolation, regulation venting of pressure instrument.

- Stainless Steel or Monel Body Manufactured from Bar stock (Other materials available upon request)
- Single or Double Block and Bleed Operation.
- Vent Port Plugged as Standard
- Pressure Rating 6,000 PSI (414 bar) (option 10,000 PSI)
- T-Handle Operation
- Available in Male or Female Threads



#### 2 Valve Manifold

Remote mount isolation and venting of pressure instrument.

- Stainless Steel or Monel Body Manufactured from Bar Stock (Other materials available upon request)
- Single Block and Bleed Operation
- Vent Port Plugged as Standard
- T-Handle Operation
- Pressure Rating 6,000 PSI (414 bar) (option 10,000 PSI)



#### 3 or 5 Valve Manifold

Remote mount regulation and venting of differential pressure instruments.

- Stainless Steel or Monel Body Manufactured From Bar Stock (Other materials available upon request)
- Single Block and Bleed Operation
- Vent Port Plugged as Standard
- T-Handle Operation
- Pressure Rating 6,000 PSI (414 Bar) (option 10,000 PSI)
- Available in Male or Female Threads

#### Valves and Manifolds

#### **Subsea Needle Valves and Manifolds**

Designed to be Remote Operated Vehicle (ROV) operated and available for subseaapplications these valves are typically suitable for depths up to 3,000 metres subsea.







## Pressure Relief Safety Valves

Designed to protect pressure systems from damage due to over-pressure within the system. The valve will automatically open at a set point and vent the pressure to atmosphere or to a closed capture system and to then return to close once the pressure drops back below a safe level. Used in many industries such as HVAC, Refrigeration, Food and Beverage, Pharmaceutical, Hydraulic, Pneumatic and many more. Connections options include, Threaded, Flanged and Hygienic. ATEX options available upon request.

## **Atmospheric Discharge Pressure Relief Valve**

Safely releases pressure to protect instrumentation from over pressure.

- Available in Brass or Stainless Steel
- Discharges Pressure to Atmosphere
- Available in Setting Ranges Typically Between 0.3 and 60 Bar
- Factory Set to Customer Requirements

# **Piped Outlet Pressure Relief Valve**

Safely releases pressure to protect instrumentation from over pressure.

- Available in Brass or Stainless Steel
- Discharges Pressure to Atmosphere
- Available in Setting Ranges Typically Between 0.3 and 60 Bar
- Factory Set to Customer Requirements
- Screwed or Flanged Outlet Options

# Piped Outlet Pressure Relief Valve with Release Handle

Piped outlet valves can be supplied with a Relief Handle. The handle allows safe testing and release of pressure/steam to a suitable outlet. This option is subject to certain process criteria, please enquire for suitability.











## Digital Indicators

LCD and LED Digital Indicators are available in a wide range of sizes to suit our Pressure and Temperature range of transmitters.

Digital displays are available with optional switching functions and can be supplied fully configured to the measuring instrument. Both panel mount and surface mounted options available as well as a plug-in design that fits directly to our Pressure Transmitter.



#### **Pressure Transmitter Plug in Display**

Designed for use with transmitters with a standard DIN plug.

- 4 Digit Red LED Display
- Loop Powered by Transmitter No further power source required
- Display Value From-1999 to +9999
- User Programmable
- Rotatable Design for Ease of Reading.
- Switch Option Available on Request
- Dimensions 43mm x 50mm x 58mm



#### **Panel Mount Indicator**

Designed for use with Pressure or Temperature transmitters.

- LED or LCD Display Options
- Many Size Options Available
- Typically 19-50v DC Supply, with 24v Excitation to the Transmitter
- Input Value Typically 4...20mA
- Selectable Output 0-20ma or 4-20ma User Selectable
- Output 2 Switch Relays
- RS-485 Communication Interface



#### **Wall or Surface Mount Indicator**

Designed for use with Pressure or Temperature Transmitters.

- LED or LCD Display Options
- Many Size Options Available
- 19-50v DC Supply, (Other Options Available)
- Binary Output 0.2 or 4 ReI/OC
- Analogue Output 0/1...20mA, 0/1-5v, 0/2-10v
- Power Output 24v DC Max 100mA
- RS-485. Modbus RTU, 1200-115200 bit/s Communication Interface

#### Chart Recorders

Paper chart recorders offer the ability to monitor and record changes in process condition over a set period of time.

Available in Single, Dual or Triple Input Options to measure Pressure, Temperature or a combination of both.

Selectable chart drives offering many options from length of recording time, to manual or battery powered options.

Chart Recorders are available in portable, bench, panel or surface mount versions with the option of ATEX certification on certain models.

#### Portable Peli-Case Chart Recorder

Lightweight Chart Recorder housed in a robust Polyethylene case, Pelicase™.

- Case Sizes, 400mm x 300mm (Chart size 223mm) or 500mm x 400mm (Chart Size 300mm)
- Pressure, Temperature or Dual Input
- Mechanical Wound or Battery Operate Chart Drive
- IP67 with Switchable Rotation Speeds Available
- Stainless Steel Wetted Parts
- Accuracy Class 1 (-/+1% Full Scale)
- Meets with Most Airline Carry-On Regulations



#### Portable/Bench Chart Recorder

Chart recorder housed in a Stainless Steel Case.

- Case Sizes, 192mm x 192mm (Chart size 163mm) or 280mm x 280 mm (Chart size 223mm) or 463mm x 335mm (Chart size 300mm)
- Pressure, Temperature or Dual Input
- Mechanical Wound or Battery Operate Chart Drive
- Switchable Rotation Speeds Available
- Stainless Steel Wetted Parts
- Accuracy Class 1 (-/+1% Full Scale)
- ATEX Options Available



#### **Wall or Panel Mount Chart Recorder**

Based upon the same operating and design principle of the above Portable/Bench Recorder but built into a housing that can be either surface/wall mounting or flush panel mounting.







### Test Gauges

Typically for use in Test or Calibration Laboratories for the Testing and Calibration of lower class Pressure Instruments. Featuring high accuracy Bourdon Tubes and Precision Movements, these instruments are suitable for all Gaseous and Liquid Media that are not highly viscous and that will not solidify, crystallize, attack or corrode the Beryllium Copper Bourdon Tube.

Precision Test Gauges are often used as a Master Reference Instrument when used in conjunction with a Pneumatic or Hydraulic Comparator Test Pump.



# Standard 160-300mm Test Gauge 0.25% Accuracy

Suitable for testing and calibration of lower class pressure instruments.

- Case Sizes 160mm, 200mm, 250mm and 300mm
- Ranges from Full Vacuum to 0-1,000 Bar
- Black Painted Steel Case as Standard
- Beryllium Copper Tube and Brass Connection Block
- Accuracy Class 0.25, -/+ 0.25% Full Scale
- Bottom or Back Entry, Direct, Panel or Surface Mount
- Mirror Band Scale and Knife-Edged Pointer
- Optional Stainless Steel Case
- Other Ranges Available on Request



#### **Precision Test Gauge 0.1% Accuracy**

Direct drive high accuracy test gauge for testing and calibration of lower class pressure instruments.

- Case Sizes 7, 8.5", 12" or 16"
- Ranges From Full Vacuum to 0-700 Bar
- Black Painted Aluminium Case
- 316 Stainless Steel Ni-span Wetted Parts
- Accuracy Class 0.1% Full Scale per ANSI B40.1
- Bottom Entry Direct Surface Mount
- Mirror Band Scale and Knife-Edged Pointer
- External Zero Adjustment Through Dial
- Other Ranges Available on Request



# **Master Digital Test Gauge 0.025% Accuracy**

Designed for calibration and test of pressure gauges and pressure transmitters. Ideal for the calibration technician.

- Case Size 120mm Diameter
- Ranges from Full Vacuum to 0-2500 Bar
- 316 Stainless Steel Wetted Parts with High Tech Silicon Sensor
- Accuracy Class 0.0.25% Full Scale
- Bottom Entry Direct Mount
- Backlit LCD Display Programmable
- Rechargeable Lithium Battery With Optional AC Adaptor
- Other Ranges Available on Request

# Calibration Equipment

Deadweight Testers, Comparator Pumps, Test Gauges, Dry Block Thermometer Calibrators can be used for in-house or on-site measurement or for the calibration of field instrumentation such as Pressure Gauge, Pressure Transmitters, Thermometers, Pressure Switches and Relief Valves etc.

### **Portable Pneumatic and Hydraulic Pumps**

Designed for use as portable calibration pressure source and often used in conjunction with test gauges or other master test equipment.

- Bench Mounted With Fine Adjustment Handle
- Air Operated & Oil/Water Operated Versions Available
- Air Version to 40 Bar, Oil/Water Version to 600 Bar
- 1/2" BSP Female Connections
- Optional Aluminium Carry Case



# **Deadweight Tester (Primary Reference Standard)**

Primary reference source for high accuracy calibration of test gauges and pressure transmitters.

- Accuracies of 0.015%, 0.01% and 0.008% Full Scale Available
- Oil Operated, Stainless Steel Body
- Supplied with Calibrated Weight Set in Bar or PSI Ranges
- Pressure Ranges up to 1400 Bar
- Optional Oil Separator Available for Calibration of Degreased or Oxygen instruments.



## **Hydraulic Comparator Pump**

For the generation of test pressure during calibration of instruments, usually used in conjunction with test gauges or other master test equipment.

- Oil or Water Operated
- Stainless Steel Body
- Pressure Ranges up to 1400 Bar



# **Dry Well Temperature Calibrator**

Portable temperature heat source for thermometer testing.

- Temperature Ranges Typically 33°C to 300°C
- Fast Stabilisation Time
- LED Display
- Core Drilled for Various Stem Diameters





ashford instrumentation tel: 00 44 (0)1233 730999 www.ashfordinstrumentation.com

#### Subsea Instrumentation

Subsea gauges can be manufactured in two basic designs. "Sealed Case" Subsea Gauges have an internal reference equal to atmospheric air pressure at sea level and should be used when the subsea system being measured needs to be compared to atmospheric air pressure. "Compensated" Subsea Gauges allow the internal pressure of the gauge to match that of the ambient sea water pressure at depth and should be used when you are comparing the subsea pressure system against local ambient sea water pressure.



### **SPAN (Compensated) Subsea Gauge**

For Subsea and ROV deep water applications. Maximum depth rating to 4000 metres.

- 2.5", 3.5" or 4.5" Case Sizes, Black Zytol Nylon Case
- Internal Compensating Diaphragm, 100% Glycerine Filled Case
- Black Non-Glare Dial, White Pointer and Lettering
- 1/4" or 1/2" NPT Connections, Bottom or Back Entry
- Direct or Panel Mount Options



#### **Compensated Subsea Gauge**

For Subsea and ROV deep water applications. Maximum depth rating to 4000 metres.

- 63mm, 100mm, 160mm, 200mm or 250mm Stainless Steel Case Sizes
- Internal Compensating Diaphragm, 100% Glycerine Filled Case
- Black Non-Glare Dial, White Pointer and Lettering
- 1/4" or1/2" BSP or NPT Connections, Bottom or Back Entry
- Direct or Panel Mount Options
- Optional White Dial with Black Pointer and Lettering



#### **Dive Bell Gauge**

Subsea Pressure Gauge for use on Diving Bells and Subsea Gas Distribution Systems. Suitable for depths to 450 metres.

- 63mm Dial. Stainless Steel Case
- Accuracy Class 1.6 (-/+ 1.6% Full Scale)
- Back Entry, 1/4" NPT Male Thread
- Degreased with OXYGEN & Crossed Out Oilcan On Dial.
- Universal Panel or Direct Mount With Screw Bezel Ring



# **Sealed Subsea Gauge**

Designed to withstand external subsea pressures without affecting operation and accuracy on the instrument. Suitable for depths up to 6,000 metres depending on case size and specification.

- 63mm, 100mm or 160mm Dial Sizes. Stainless Steel Case
- Accuracy Class 1.6 (63mm), Accuracy Class 1 (100mm and 160mm)
- Bottom or Back Entry Options
- Direct, Panel or Surface Mount Options
- Optional OXYGEN (O²) Service on Enquiry
- ULTRA Deep and SUPASUB Options for Depths up to 6,000 metres

# Hyperbaric Chamber Instrumentation

Caisson Gauges, typically scaled in metres or feet of sea water, are specially designed to be mounted inside a pressure chamber and feature an internal pressure reference to measure the ambient pressure inside the pressure chamber. Pneumo Gauges, also usually scaled in metres or feet of water, can also be used to measure the pressure inside a pressure chamber but must be mounted outside the chamber. Pneumo Gauges can also be used topside typically for diver depth measurement where the diver control panels also typically feature 63mm diameter pressure gauge which must be suitable for mixed diving gas or oxygen and built to rigorous safety standards.

#### **Caisson Gauge**

Designed to be mounted inside Hyperbaric and Decompression Chambers.

- 4.5", 6", 8", 8.5", 10" or 12" Dial sizes. ABS Plastic, Stainless Steel and Painted Steel Cases
- 6", 8" 10" or 12" Dial Sizes. Stainless Steel Case
- Internal Sealed Reference Chamber
- Premium Design for Bench Calibration
- Standard Ranges 0-21...0-450 metres Sea Water
- High Quality Beryllium Tube, Accuracy 0.25% Full Scale
- Bottom or Back Entry Options
- Panel or Surface Mount Options Available



## Pneumo Gauge

Designed to measure diver depth or pressure within a Hyperbaric Chamber.

- Available in Direct Drive (Helical) or Bourdon Tube Designs
- Case Size and designs per Caisson Gauges Options Shown Above
- Through Window Zero Adjustment
- Coloured Cases including Black, Red, Yellow and Green



# 63mm S2 Safety Gauge

Designed to meet the safety designation of \$2 per EN837-1. Suitable for gaseous media.

- 63mm Diameter Dial
- Degreased for Use on Mixed Diving Gases/Oxygen
- Stainless Steel Case and Brass Wetted Parts
- Non-Splinter Window
- Accuracy Class 1.6. Ranges up to 400 Bar (6000 psi)
- Bottom or Back Entry
- Blow Out Protection
- Dial Marked OXYGEN with Crossed Oil Can









Measurably different...

Innovative
Bespoke
Dependable
Understanding





