

ashford
instrumentation



HVAC, Plant Room & Utility



www.ashfordinstrumentation.com

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, Plant Room & Utility

Ashford Instrumentation are now recognised as a leading supplier of mechanical pressure and temperature instrumentation to the HVAC, Plant Room and Building Services Industry throughout the UK. Our product range has expanded over the years from simple pressure gauges and thermometers to electronic transmitters and data loggers. We have an extensive standard range available from stock, and customised items can be manufactured to meet your specific requirements (this may include your logo on the dials). Our in-house workshop can meet your demands for instrument calibration, repairs and servicing. This enables us to provide a rapid and consistent service to our customers in the field.



Diving, Marine & Subsea

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



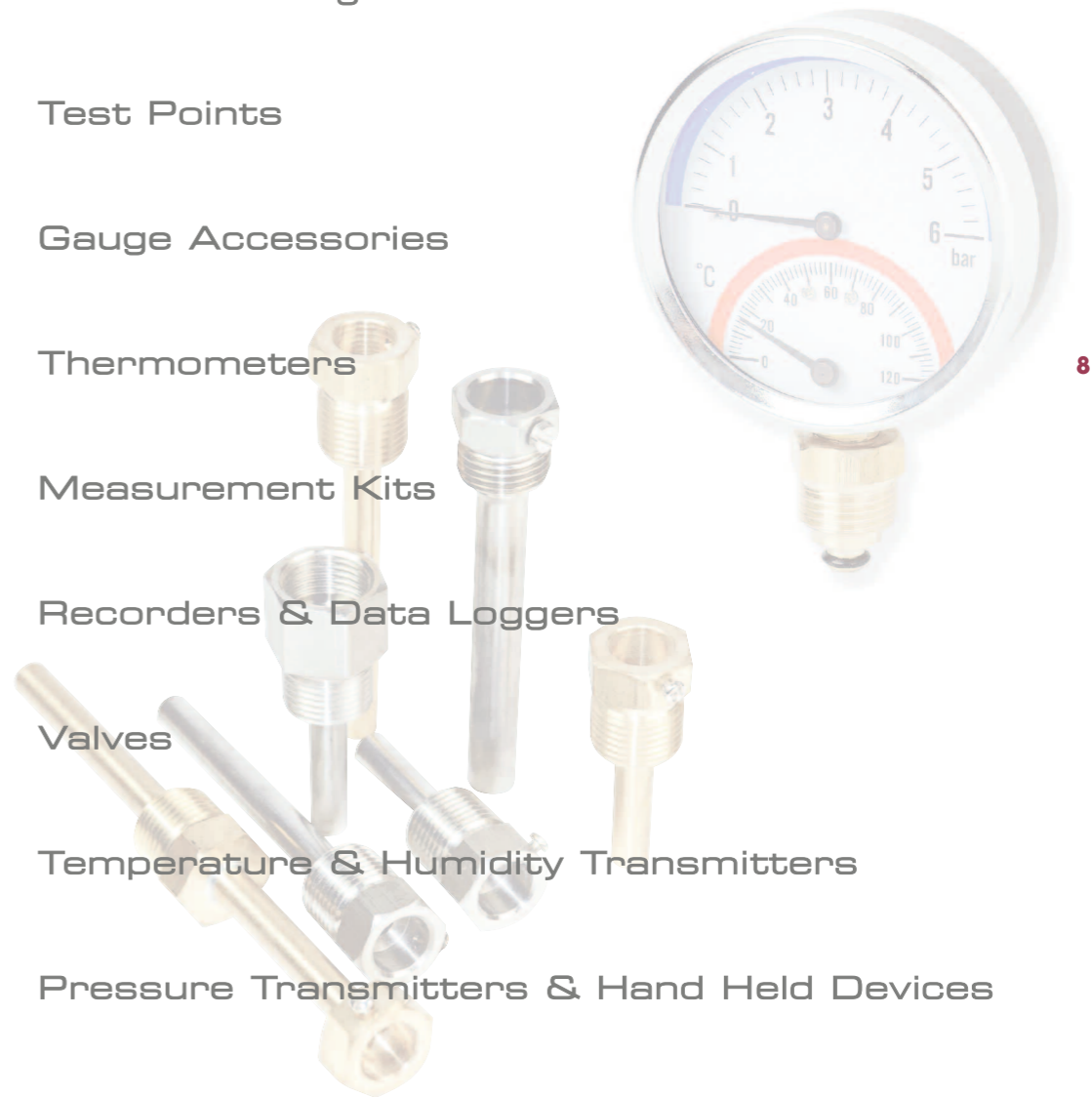
Process, Industrial & Utility

Pressure, Level, Temperature and Flow Instrumentation for the Process and OEM 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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EX-Stock This symbol indicates that certain ranges of this instrument are generally available Ex-Stock

LOGO This symbol indicates that these instruments can be supplied with your logo on dial (subject to minimum quantity order)

All our instruments can be provided with a calibration certificate if required - please contact our sales team



Standard Pressure Gauges



Standard HVAC Gauge **EX-Stock**

- Black steel case and chrome bezel
- Ranges 0 – 1 Bar (15 PSI) to 70 Bar (1000 PSI)
- Nominal sizes available 100mm and 160mm
- Accuracy class 1.6 (1.6% FSD), brass wetted parts
- Process connection 3/8 or 1/2 inch BSP male
- Back or bottom entry option available



Premium HVAC Gauge **EX-Stock**

- Deep black steel case and bayonet lock chrome bezel
- Ranges 0 – 2.5 Bar (25 MWG) to 16 Bar (160 MWG)
- Nominal size 100mm with an adjustable red pointer option
- Accuracy class 1.0 (1.0% FSD), brass wetted parts
- Process connection 3/8 or 1/2 inch BSP male
- Only available in bottom entry model



Boiler Gauge

- Black steel case and bezel
- Ranges 0 – 1 Bar (15 PSI) to 70 Bar (1000 PSI)
- Nominal sizes available 160mm, 200mm, 250mm and 300mm
- Direct mount, surface mount, panel mount options
- Accuracy class 1.0 (1.0% FSD), brass wetted parts
- Process connection 3/8 or 1/2 inch BSP male



Pneumatic Gauge **EX-Stock**

- Black steel case and push fit plastic window
- Ranges 0 – 1 Bar (15 PSI) to 28 Bar (400 PSI)
- Nominal sizes available 40mm and 50mm
- Accuracy class 1.6 (1.6% FSD), brass wetted parts available
- Process connection 1/8 inch BSPT (also 1/4 inch BSPT with 50mm diameter)



Hydraulic Gauge **EX-Stock**

- Stainless steel glycerine filled case
- Ranges 0 – 1 Bar (15 PSI) to 700 Bar (10000 PSI)
- Nominal sizes available 63mm and 100mm
- Accuracy class 1.6 (1.6% FSD), brass wetted parts
- Process connection 1/4 inch BSP and 1/4 inch NPT
- Back or bottom entry option available

Specialist Pressure Gauges



Commissioning Gauge **EX-Stock**

- Stainless steel case and removable bayonet lock bezel
- Ranges 0 – 2 Bar (30 PSI) to 40 Bar (600 PSI)
- Nominal size 100mm, accuracy class 1 (1% FSD)
- Supplied with calibration certificate traceable to National Standards
- Process connection 3/8 or 1/2 inch BSP male



Standard Fire Sprinkler System Gauge & No Loss Connector **EX-Stock**

- Stainless steel glycerine filled case, 3/8 inch BSP connection
- Slimline case design with rolled bezel
- Ranges 0 – 16 Bar (232 PSI) to 20 Bar (300 PSI)
- Nominal size 100mm, accuracy class 1.6 (1.6% FSD)
- Option of brass no loss connector 1/2 inch BSP connection



Premium Fire Sprinkler System Gauge & No Loss Connector **EX-Stock**

- Stainless steel glycerine filled case, 3/8 inch BSP connection
- Deep case design with removable bayonet lock bezel
- Ranges 0 – 16 Bar (232 PSI) to 20 Bar (300 PSI)
- Nominal size 100mm, accuracy class 1.0 (1.0% FSD)
- Option of brass no loss connector 1/2 inch BSP connection



All Stainless Steel Gauge (for external use) **EX-Stock**

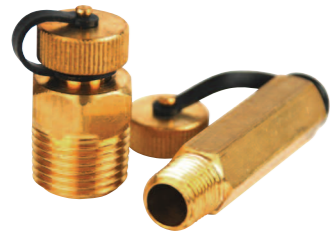
- Stainless steel IP65 case and bayonet lock bezel
- Ranges 0 – 1 Bar (15 PSI) to 700 Bar (10000 PSI)
- Nominal sizes 100mm and 160mm
- Accuracy class 1.0 (1.0% FSD), 316 stainless steel wetted parts
- Process connection 3/8 or 1/2 inch BSP male



Diaphragm Seal Gauge (for sewage / sludge) **EX-Stock**

- Stainless steel IP65 case and bayonet lock bezel
- Ranges 0 – 4 Bar (15 PSI) to 70 Bar (1000 PSI)
- Nominal sizes 100mm and 160mm
- Accuracy class 1.0 (1.0% FSD), 316 stainless steel diaphragm
- Process connection 1/2 inch BSP

Test Points



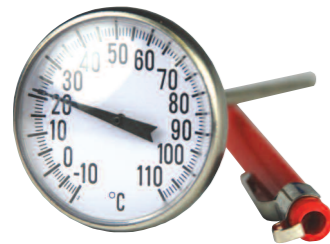
Brass Test Points **EX-Stock**

- Brass body test point with rubber self-sealing insert and protective cap
- Nominal sizes 35mm (short) or 75mm (long)
- Maximum working pressure of 35 Bar and maximum working temperature of 70°C
- 1/4 or 1/2 inch BSPT connection



Test Point Pressure Gauge **EX-Stock**

- Bottom or back entry glycerine filled stainless steel case pressure gauge with needle probe
- Nominal size 63mm diameter
- Probe length of 38mm or 100mm
- Accuracy 1.6 FSD and ranges from 0 – 4 Bar (60 PSI) to 0 – 11 Bar (160 PSI)



Test Point Thermometer **EX-Stock**

- Back entry bimetal thermometer with protective plastic pocket
- Nominal size 45mm diameter
- Stainless steel case and probe length of 130mm
- Accuracy +/-1°C
- Ranges -40 to +70°C, -10 to +110°C and 0 – 250°C



Test Point Kits **EX-Stock**

- Plastic carry case with foam insert
- 2 x 63mm pressure gauges and 2 x 45mm thermometers
- 1 x 38mm short probe and 1 x 100mm long probe
- 1 x bottle of liquid soap and sealing washers



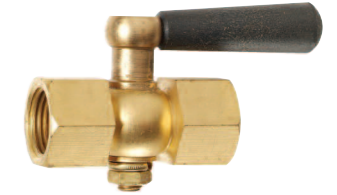
EcoTemp Digital Thermometer **EX-Stock**

- Battery powered low cost hand-held device supplied with battery and open circuit warning displays
- Probe dimensions of 108mm (length) by 3.3mm (diameter) supplied with 500mm long connecting lead
- Thermistor sensor with 22mm LCD
- Resolution of 0.1°C and accuracy of +/- 0.1°C

Gauge Accessories

Gauge Cocks **EX-Stock**

- Cost effective method of isolating a pressure gauge
- Made of brass with 1/4, 3/8 or 1/2 inch BSP connections
- Maximum pressure 20 Bar and maximum temperature 60°C



Syphons **EX-Stock**

- Condenses steam to reduce temperature prior to reaching a pressure gauge
- Mild steel, brass or stainless steel material with 'U' (Swan neck) or 'Ring' (Pig tail) design
- 1/4, 3/8 or 1/2 inch BSP connections available with male / male locking nuts
- Maximum pressure 40 Bar and maximum temperature for brass 200°C



Snubber **EX-Stock**

- Adjustable and used to dampen pressure readings (minimises effects of fine pulsation and peaks)
- Stainless steel construction with maximum pressure of 250 Bar
- 1/4, 3/8 or 1/2 inch BSP or NPT male connections with male / female adjustable screw and dust cap



No-Loss Connector **EX-Stock**

- 'Check valve' allows gauge to be safely removed without system pressure loss (ideal for sprinkler systems)
- Brass body and stainless steel spring
- 1/2 inch BSP connection with self-sealing thread
- Gauge connection 3/8 inch (female) with maximum pressure 26 Bar



Rubber Gauge Covers **EX-Stock**

- Available in 50, 63 and 100mm diameter designed to protect pressure gauges from damage when in the field
- Black supplied as standard – other colours available on request



Standard Thermometers



Standard HVAC Thermometer (for internal use) **EX-Stock**

- Nominal sizes 63mm, 100mm and 160mm
- Black steel case, chrome bezel, brass thermowell
- Range -30 to +60°C, 0 – 120°C, 0 – 160°C and 0 – 250°C
- Direct mount bottom and back entry
- Immersion 50mm or 100mm
- Process connection 1/2 inch BSP



Premium HVAC Thermometer (for external use) **EX-Stock**

- Nominal size 100mm and all stainless steel construction
- Process connections 3/8 and 1/2 inch BSP, BSPT and NPT
- Range -30 to +60°C and 0 – 120°C
- Direct mount bottom or back entry
- Stainless steel thermowells
- Immersion 50mm and 100mm



Combined Pressure & Temperature Gauge **EX-Stock**

- Nominal size 80mm
- Process connection 1/2 inch BSPT
- Supplied with non-return valve
- Ranges 0 – 4 Bar (120°C), 0 – 6 Bar (120°C) and 0 – 10 Bar (200°C)
- Black steel case, chrome bezel, brass wetted parts
- Direct mount bottom or back entry



Pipe Clip Thermometer **EX-Stock**

- Nominal size 63mm diameter with plastic window
- Galvanised sheet steel case, nickel plated sheet steel bezel and bi-metal helix measuring element
- Universal spring clamp mounting
- Class 2 DIN 16023 and measuring range from 0 – 120°C
- For use on pipe work from 1/2 to 1.5 inches diameter

Specialist Thermometers



Any Angle Thermometer (for internal & external use)

- Nominal size 100mm
- All stainless steel construction
- Process connections 1/2 inch BSP and 1/2 inch NPT
- Fully adjustable head for any mounting orientation
- Supplied with stainless steel thermowell
- Range from -30 to +500°C (minimum span of 60°C)
- Immersion length 50mm to 500mm



Gas Filled System Thermometer with capillary

- Nominal sizes 100mm and 160mm
- All stainless steel construction
- Ranges from -50 to +50°C or 0 – 600°C
- Options of direct, panel or surface mounting with capillary
- Supplied with stainless steel thermowell

Mercury-in-Steel Thermometer

- Nominal sizes 100mm and 160mm
- Black steel case & chrome bezel
- Ranges from -50 to +50°C or 0 – 600°C
- Direct mount bottom or back entry
- Supplied with brass or stainless steel thermowells
- Immersion length 50mm to 500mm



Vapour Filled System Thermometer

- Nominal sizes 100mm and 160mm
- Black steel case & chrome bezel
- Ranges -20 to +40°C or 20 – 120°C
- Direct mount bottom or back entry
- Supplied with brass or stainless steel thermowells
- Immersion length 50mm to 500mm



Measurement Kits



HVAC Thermometer Kit

- Suitable for differential measurement and radiator balancing
- Hand held display with dual inputs from -50 to +200°C
- 12.7mm LCD display with selectable T1, T2 or differential input
- Supplied with 1 x penetration probe and 2 x pipe clamp probes
- ABS carry case and batteries supplied
- Calibration certificate included



Legionnaires Thermometer Kit (water temperature monitoring)

Incorrect water temperature is a key risk factor for legionella growth since legionella bacteria multiply in water at temperatures between 20°C and 45°C. A typical method of control is to store cold water below 20°C and hot water above 60°C and distribute at above 50°C

- Hand held thermometer with wide temperature range
- Large, easy to read LCD display, powered by 3 x AAA batteries (supplied)
- Penetration probe, surface ribbon probe and PTFE wire probe
- ABS carry case
- Count up / down timer and probe wipes



Infrared Thermometer with Plug in Probe

- Simple 'aim and pull' trigger for non-contact temperature reading
- Battery powered, compact, lightweight and easy to use
- Infra red range -60 to +500°C
- Supplied with penetration probe (temperature range of -20 to +250°C)
- ABS carry case and batteries supplied
- Anti-bacterial wipes supplied



Moisture Meter (for timber and general building materials)

Ideal for assessing the moisture content in buildings and materials such as wood, brickwork, plaster and concrete

- Five colour coded scales (concrete, plaster, 2 x timber and reference)
- A remote 2-pin moisture probe with a one metre PVC connecting lead
- Flip top polypropylene case
- 50 spare pins

Recorders and Data Loggers

Portable Chart Recorder

Portable chart recorder housed within impact-resistant reinforced lightweight polyethylene case which is both water and air tight

- Mechanical and battery driven chart operates with 1, 2 or 3 pen recording for pressure and/or temperature
- Input options include pressure only, temperature only or a combination of both
- Portable design, simple installation and maintenance with IP67 protection
- Pressure ranges: full vacuum to 0 – 4000 Bar
- Temperature ranges: -200 to +600°C (minimum span 80°C)
- Accuracy +/- 1 % full scale
- Meets airlines carry-on regulations
- Supplied with 100 charts (either 223mm or 300mm diameter)



Temperature & Humidity Data Loggers

PC programmable, easy to use IP67 portable data loggers for temperature and temperature/humidity recording with local display



Model TD Temperature Logger with LCD Display & Internal Sensor **EX-Stock**

- Range -30 to +85°C with 10mm LCD display
- Accuracy +/- 0.5°C with alarm
- Memory 4000 readings
- Sample rate 0.1 to 255 minutes



Model TD1F Temperature Logger with LCD & Internal & External Sensor **EX-Stock**

- Temperature range -30 to +85°C or up to 125°C
- Accuracy +/- 0.5°C with alarm
- Memory 2 x 2000 readings
- Sample rate 0.1 to 255 minutes



Model TDTH Temperature & Humidity Logger with LCD & Internal Sensor **EX-Stock**

- Temperature range -30 to +85°C
- Humidity range 0 – 100% rh
- Accuracy +/- 0.5°C and +/-2% rh with alarm
- Memory 2 x 8000 readings
- Sample rate 0.1 to 255 minutes



Valves



Ball Valves

- One piece or three piece, two way and three way
- Options WRAS approved and gas approved
- 1/4 to 4 inch screwed connections, reduced and full bore
- Connections threaded, flanged (T port and L port options)
- Brass, stainless steel, carbon steel, bronze, cast iron



Gate Valves

- Brass, stainless steel, bronze and cast iron
- 1/2 to 6 inch and DN50 to DN300 diameters, full bore
- Flanged, screwed and compression ends



Check Valves

- Designs: wafer, swing, spring, lift
- 3/8 inch to 12 inches
- Brass, stainless steel, bronze, cast iron



Globe Valves

- Stainless steel and bronze
- 1/2 inch to 2 inch diameters
- Screwed and flanged connections



Butterfly Valves

- Cast iron, ductile iron
- Wafer, lugged and tapped designs
- Epoxy coat finish
- 316 stainless steel or plated ductile disc
- Size DN50 to DN300
- Optional WRAS approval
- Optional actuators available



Y Strainer

- Brass, stainless steel, bronze and cast iron
- Screwed connection
- Stainless steel mesh
- 1/4 inch to 4 inch diameters

Please note that the above information is a brief overview of the products available
Not all materials and designs are available in all the sizes indicated

Temperature & Humidity Transmitters

Temperature Transmitter with Local Display **EX-Stock**

- Local LCD 5 digit display with backlight
- Accuracy <0.02% of span (Pt100)
- Output 4 – 20mA 2-Wire (HART protocol)
- Programmable sensor input: thermocouple or RTD
- Die-cast housing with 316 stainless steel wetted parts



External Temperature Sensor (with optional transmitter)

- Ambient temperature range -30 to +90°C
- Internal or external sensor (2, 3 or 4-wire)
- Optional transmitter range -50 to +50°C or 0 – 50°C
- Output of 4 – 20mA or 0 – 10V with accuracy <0.4% range
- IP65 housing as standard



Air Duct Temperature Sensor (with optional transmitter)

- Ambient temperature range -30 to +150°C (ambient -30 to +90°C)
- Internal or external sensor (2, 3 or 4-wire)
- Optional transmitter range -50 to +50°C or 0 – 50°C
- Output of 4 – 20mA or 0 – 10V with accuracy <0.4% range
- Probe lengths 50mm to 400mm



Air Humidity & Temperature Transmitter

Suitable for refrigeration plants, plant rooms, air conditioning, clean rooms, greenhouses & swimming pools

- Ambient temperature range -5 to +55°C
- Humidity measuring range is 10 – 90%rh (maximum inaccuracy 2%)
- Temperature measuring range is 0 – 50°C (maximum inaccuracy +/-0.5%)
- Output of 4 – 20mA or 0 – 10V
- IP65 housing as standard



Pressure Transmitters & Hand Held Devices



Pressure Transmitter (with optional local display) **EX-Stock**

Ideal for hydraulic, pneumatic, plant room and general engineering applications

- Pressure ranges 0 – 10 mbar to 0 – 4000 Bar
- Outputs 4 – 20mA, 0 – 10V and 1 – 5V
- Connections 1/4 inch BSP, 1/4 inch NPT, 1/2 inch BSP and 1/2 inch NPT
- ATEX, submersible and high accuracy options available
- Optional LED local display



Differential Pressure Transmitter (with optional local display)

Ideal for HVAC, pneumatic, plant room and general process engineering

- For air/gas, this measures low pressure and differential pressure ranges of 0 – 100Pa (1 mbar) to 0 – 5000 Pa (50 mbar)
- For air, liquids and oils this measures standard pressure and differential pressure ranges of 0 – 1000 Bar
- Outputs 4 – 20mA and 0 – 10V
- Connections via 'push fit' hose or G 1/4 process connection
- Optional LCD local display in IP66 enclosure



Therna-Anemometer (temperature & airspeed meter)

Hand held and ideal for ventilation systems, air conditioning, heating and environmental monitoring

- Temperature range -10 to +50°C (resolution 0.1°C)
- Airspeed range 0.4 to 20 metres per second (80 to 4000 feet per minute)
- Battery powered 3 x 1.5V AAA (batteries included)
- Max/min hold function
- Robust ABS case with LCD display



Therna-Hygro (temperature & humidity meter)

Hand held combined humidity and temperature meter

- Temperature range -20 to +70°C (resolution 0.1°C)
- Humidity range 0 – 100% rh
- Battery powered 3 x 1.5V AAA (batteries included)
- Robust ABS case with 12mm backlit LCD display
- Optional one metre lead and separate probe



Lux / Foot-Candles Light Meter

Hand held device ideal for office, commercial and horticultural applications when measuring light levels of new lamps and monitoring light intensity thereafter

- Range 0 – 30000 Lux/FC (resolution 1 Lux)
- Accuracy +/- 4% or +/-50 digits
- 270 degree rotating light sensor
- Battery powered 3 x 1.5V AAA (batteries included)
- Max/min hold function
- Robust ABS case with LCD display

Tank Level Monitoring

Tank Contents Gauge (battery or mains powered) **LOGO**

For use on water, heating oil, paraffin and all liquids compatible with either PVC, stainless steel or brass

- 160mm surface mount gauge (optional square version 180mm x 180mm)
- Battery operated 'Push to Read', adjustable automatic timer or mains powered for continuous reading
- Measures tank depths up to 8 metres with maximum capillary length of 200 metres
- Through tank top balance chamber with 1 or 1.5 inch BSP screw fitting
- Typical scales in litres, imperial gallons, US gallons, tonnes, kilograms or percentage
- Customised scales available on request



'Bubbler' Tank Contents Gauge with Hand Pump **LOGO**

Hydrostatic gauge for use on water and heating oil

- 160mm surface mount gauge (optional square version 180mm x 180mm)
- Manual hand pump for reading
- Measures tank depths up to 8 metres with maximum capillary length of 30 metres
- Through tank top balance chamber with 1 or 1.5 inch BSP screw fitting
- Customised scales available on request



Overfill High Level Alarm System

Designed primarily for diesel, oil or water tanks

- Helps avoid liquid spillage with continuous tank monitoring
- Mains powered - simple installation
- Built-in sounder with mute function



Tank Monitoring System Pump Controller

Provides an effective control of two levels and is mostly used in diesel, oil or water storage tanks

- Surface mounted control box
- Two separate float switches for independent measurement
- Mains powered with volt free changeover contacts
- Control for high level in two separate tanks or high and low level in a single tank



ashford instrumentation



'Measurably different'...



Innovative

Bespoke

Dependable

Understanding



ashford instrumentation

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