

# insteng

PROCESS AUTOMATION LTD

## INSTRUMENT HIRE



for Industry, Commerce and the Environment

- Industrial Measurements
- System Integration
- Calibration Services
- Industrial Instrumentation Hire



**Insteng Process Automation** Ltd has operated for over 35 years providing complete engineering solutions to a vast range of control and instrumentation requirements. Insteng has become a recognised centre of excellence covering a broad selection of instrumentation areas, supporting its customers and their need to drive control processes and meet legislative standards. We are an accredited **ISO9001:2008** registered company and we are committed to providing **quality products and services**.

We offer a wide range of:

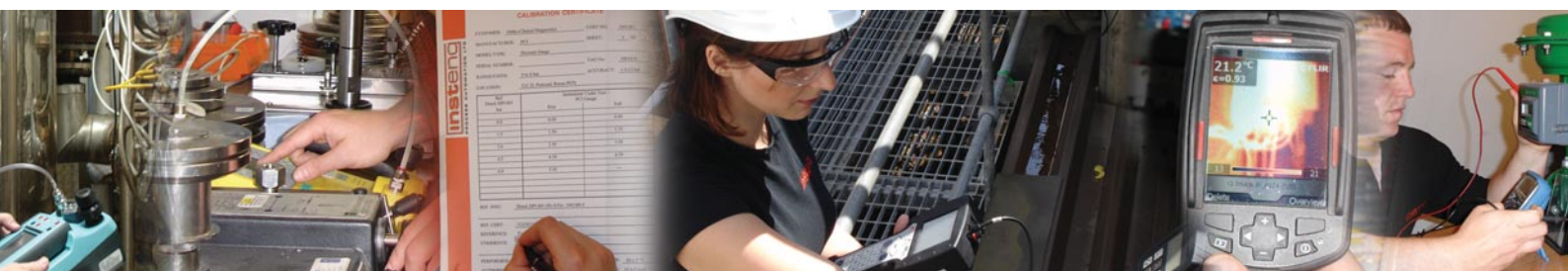
- **Industrial Measurements and Control**
- **System Integration and solution**
- **Site and In-house Calibration Services**
- **Industrial Instrumentation Hire**

Specialising in **Process Measurements, Analytical Products** for Industrial and Environmental Applications, **Control Systems** and **Customised Solutions**.

Representing some of the leading names in the industry, Insteng can provide an unrivalled service and become a single source of supply for your instrumentation needs. Products and systems from leading international instrumentation suppliers encompass areas including **Temperature, Level, Pressure, Flow, Imaging, Infra-Red Temperature, Humidity, Speed, Density, Telemetry, Calibration and Analytical Thermography**.

Finally, our main activities lie in the following industries:

- **Steel**
- **Chemical**
- **Pharmaceutical**
- **General Industry Support**
- **Plant Supplier**
- **Food and Beverage**
- **Energy and Environmental**
- **Electrical Manufacturers and Distributors**



## Keeping Your Process in Control

**INSTENG PROCESS AUTOMATION LTD**

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**Instrument Hire** for Industry, Commerce and the Environment

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DPI 104

## Standard Test Guages

### Mechanical Test Gauges

1 bar Vacuum to 1600bar; Accuracy 0.25%  
Dials 6" – 10".

### Digital Test Gauges DPI 104

Ranges; 0-20bar, 0-100bar.  
Accuracy; 0.05% FS, selectable units.



DPI 610

## Pressure and Vacuum Calibrators

### DPI 601 Portable Micro-based Calibrator DPI 610/615

Units in bar, Psig, Mwg, VDC and mA.  
Std Pressure ranges 2, 10, 20 bar, 200 mbar.  
Accuracy 0.025% - 0.1%, 350 mbar to 400bar  
Complete with vacuum facilities. IS options.

### DPI 620+PV622+PM620 Pneumatic

Advanced Modular Calibrator.  
Pneumatic Base Station (100bar).  
Pressure Module (100bar).

### DPI 620+PV623+PM620 Hydraulic

Advanced Modular Calibrator.  
Hydraulic Base Station (700bar).  
Pressure Module (700bar).



DPI 620

## Digital Pressure Indicators

### Triple Range Instruments

0-1.999bar; 0-199.9mbar; 0-7.00bar.

### DPI 802 Digital Pressure Indicator

Range: -1 to 7 barg, (25) various Units.  
Measures: 0 – 55 mA.

### Differential Pressure Indicators

Range 0-200metres WG, Other ranges available.

### DPI 260 Digital Absolute Pressure Indicator

35-1200mbar Pressure (Absolute).



DPI 802

## Digital Manometers

### MP6KS Digital Micromanometer

Measures pressure and velocity.  
1 metre extendable Pitot Tube available.

### DP-Calc Micromanometer Model 5825

Units: in.H<sub>2</sub>O, Pa, hPa, kPa, mm Hg,  
m/s, ft/min. Range: -15 to + 15 in. H<sub>2</sub>O  
Resolution : 0.001 in.H<sub>2</sub>O, Accuracy: ± 1 %  
of reading. Stores 12,700 samples.



DP-Calc 5825

### Active Series Vacuum Transmitter/Indicator

Pressure Range 10-1 to 10-3 mbarA.  
(includes transmitter) certified.

| HIRE COST |
|-----------|
| B         |
| C         |
| D/E       |
| E         |
| I         |
| B         |
| B         |
| B         |
| C         |
| C         |
| D         |
| G         |



Edwards Speedivac

## Pressure and Vacuum Generation

**Hand pump with vernier volume adjuster**

Ranges 0-15bar; 0-20bar.

**Edwards Speedivac Vacuum Pump**

Maximum vacuum approx. 50mbarA  
Supply 230 VAC.

**PV411 Triple Pump**

Hydraulic, Air and Vacuum  
60 bar pneumatic, 700bar hydraulic  
95% vacuum, large volume adjuster.



Comparator 106

## Hydraulic

**Comparator Fig 106**

Precision screw adjustment - 10,000psig.

**Air operated hydraulic pump**

Range 0-15,000psig, supply 150psig Air  
High volume tester water or oil.

**HMP Series Hand Pump**

A powerful hand pump 700bar.

## Deadweight Testers

### Deadweight Testers Pneumatic and Vacuum

**Budenberg Model 239P**

Range 15-1,000mbar Traceable to NPL.

**Model 554**

Range 0.2 - 25bar.

**Model 358**

Range 1 - 120bar.

**Vacuum adapter Fig 24  
Budenberg**

Ranges 15-900mbar vacuum.  
For use with 239P.



Budenberg 550



Budenberg 380

### Deadweight Testers Hydraulic

**Model 380D**

Range 1-1600bar; 0-8,000psi.

**Model 380H**

Range 1-1200bar; 10-16,000psi.

**Oil Seal Fig 28**

Viton Seal for testing oxygen hygienic gauges.

| HIRE COST |
|-----------|
| B         |
| C         |
| C         |
| C         |
| F         |
| B         |
| H         |
| J         |
| J         |
| D         |
| I         |
| K         |
| C         |

## Multimeters

### Conventional Multimeters

Various models and ranges available/IS version.

### Logging Multimeters Model MTX 328I

Large Screen, ranges from 100,000 to 1000. Displays bargraph, graphic measurement log. (158 measurements) Communication: Bluetooth cordless, RS232 or USB.VDC/AC I/DC/AC (20A). Frequency continuity, resistance, peak, temperature, capacitance.



MTX 328I

### Resistance Boxes

#### Decade Resistance Boxes

5 Decade and 6 Decade 0.001Ω to 100MΩ.

## DC and Process Calibrators

### Loop Calibrators

#### UPS III and III(IS)

Essential tool for loop testing, instrument maintenance and valve set-up, with an easy to read display and simple to use time saving features. Measure or source 0 to 24mA. HART® Compatible.



UPS III

#### Fluke 771 Clamp Meter

Measures 4-20mA signals without breaking the loop.



Fluke 771

#### Fluke 725 EX

Multifunction Process Calibrator: Measure / Source, TC and RTD's, Voltages, Currents, Resistance and frequency.

#### DPI 620 Multifunction Calibrator

Advanced Modular Calibration system  
Simultaneous measure and source.  
Multiple parameters all thermocouples, RTD, process signals and HART®.  
USB master and slave for connecting to a PC and peripherals.



DPI 620

HIRE  
COST

POA

B

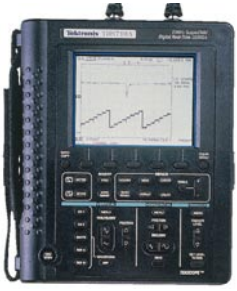
C

B

B

E

E



THS720

## Frequency Oscilloscopes and Strobes

### Oscilloscopes

#### Tekscope THS720 Storage Scope/Meter

Frequency range 100MHz, 2 channel.  
Sample rate: 500MS/s Record length 2,500 points.



CA7040

### Fibre Optic/Lan Testers

#### CAT 5/6 Tester CA7040

Check your LAN networks compliance with standards up to CAT 6. Class E. Frequency measurement 1 to 300 MHz. Several features include computer transmission networks, fault location and attenuation.

### Frequency Counters and Generators

#### Feedback Generator FG601

9 Ranges 0.001 Hz to 1MHz. 20 pk/pk sine, square, triangle.

#### Racal Counter/Timer 1991

DC-16MHz.  
9 digit resolution.



Racal Counter

## Power Supplies

#### Various DC Power Supplies

24V/350V.

#### Battery Chargers

12V/24V 30A DC.

#### Diesel Generator

115/230VAC (1900W).  
12VDC (8.3A).  
Duration 15 hours.

## Communications

#### 275/ 375 HART Communicator

Designed to support all HART® and all Foundation Fieldbus devices from all vendors.

#### 475 Hart Communicator

Colour display providing access and display device diagnostics, setup information for HART®, Foundation Fieldbus and wireless HART®.



375 HART



475 HART

| HIRE COST |
|-----------|
| E         |
| E         |
| C         |
| D         |
| POA       |
| B         |
| G         |
| D/I       |
| I         |

## Installation Testing

### IS Metrohm Insulation and Continuity Tester

500VDC, 0-100 megohms IS BASEEFA Certified.

### BM80 Insulation Tester

1000VDC, 02-0,000 megohms 5 Ranges, 5 Voltages.

### Megger LT300 Loop Impedence Tester

For CATIV applications, high current loop testing, wide range of frequencies and supply voltages simple 2 wire operation Single and 3 phase, 16Hz to 400Hz.



Megger LT300

### FT4 Flash Tester

Suitable for ac applied voltage or flash testing work on electrical components, printed circuit boards, electrical equipment and general electrical machinery. 4KV.



FT4 Flash Tester

## Low Resistance Testing

### BT5 I

2ADC Bonding Tester:

### Megger Ductor D20I

Low resistance tester From 1  $\Omega$  at 10Adc to 59.99 $\Omega$  at 0.001A. For testing busbar joints, switch contact resistance. Digital display.

## 16th Edition / Earth Testing

### ET5 Earth Electrode Tester

Range 0.1-199.9, 10-9990milliohms, accuracy +1% of range.

### 411 Ground Tester

Ultra-rapid testing of multiple earth loops.

### CA6115 Insulation Tester

The complete insulation tester: RCD's, Earth, Loop continuity and phase rotation.



CA6115

## Secondary Injection Testers

### Megger SCITS 100

For routine testing and timing of protection systems. The SCITS100 Secondary Current Injection Test Set has a maximum rating of 100 A/1.8 kVA and a built-in timer unit. The SCITS100 will test instantaneous relays, IDMT relays, directional relays, moulded circuit breakers and metering.



SCITS 100

## Cable Fault Location

### Cable Avoid Tool (CAT and Genny)

This versatile tool allows an area of ground to be scanned for buried utility cables and pipes.

### Cable Fault Locator

Various models available.

HIRE COST

A

D

B

D

D

E

C

C

D

I

E

E



Seaward Supernova

## Appliance Testing

### Megger 4DVF

Ability to test Class I, Class II and IT equipment. Dual voltage 110volt and 230V.

### Seaward Supernova

Multivoltage in and out. Accurate earth bond and leakage measurement. Connects to PC. Full graphics display.

Both above units supplied with PC Software.



CA6121

### CA6121 Machinery Tester

In accordance with European directive EN60204. Dielectric 1000, 1250 and 1500VAC at 500VA.

## 'Supply Testing / Power Analysers

### Disturbance Analysers – see also Harmonic Analysers

## Power and Harmonic Analysers

### PHS50/I

Three phase power, energy and harmonic analysis, disturbance, real time recorder. Function 2Mb logging memory. Scope display of waveform to 50th harmonic Fully inclusive of loads and clamps Power link software for full analysis power surveys and investigation.

### Chauvin Arnoux Qualistar CA8334

Three phase power quality analyzer TRMS AC and DC voltages up to 480V Peak voltage and current, freq 40-70HZ Harmonics for voltage and current. Records and displays visual graphics Flexi clamp-on CT's. (similar applications as PHS 50/51)



CA8334

### Chauvin Arnoux Single Phase Analyser Model CA.8230.

Single phase or balanced three phase power analyzer recognises the type of connected sensor. Enables you to measure and qualify your electrical network harmonics. An inrush mode for starter currents. Dataviewer software supplied.



CA8230

### Clamps

DC output clamps 25 - 100 A AC

AC ouput clamps 0 - 3000 A AC

AC voltage and current transducers  
I V DC output

| HIRE COST |
|-----------|
| D         |
| D         |
| F         |
| I         |
| I         |
| D         |
| A         |
| B         |
| A         |



DPI 811

## Calibrators

### DPI 620 Druck

Advanced Modular Calibration system  
Simultaneous measure and source.  
Multiple parameters all thermocouples, RTD,  
process signals and HART®. USB master and slave  
for connecting to a PC and peripherals.

### DPI 811 (RTD) Calibrator

Simulates and measures Pt 50 to Pt 1000  
3 wire and 4 wire. Display Ohms or Temp.

### RENSE S-503 Humidity Calibrator

A portable quick and accurate relative  
humidity generating chamber with various  
probe adaptors. Multiple sensor facility.  
Range 10% – 90% RH.

### Optidew Precision Dewpoint Meter

High performance optical dewpoint meter  
Displays :- Temp/ RH or Dewpoint  
Range :- 0.5 to 100% RH / -40°C to +90°C.



RENSE S-503

## Indicators

### Temperature

#### TempMaster

Highly accurate meter with a 5 digit LED display.  
Ideal for use as a reference. With a traceable  
probe in calibration applications.

### F150 Precision Temperature Indicator

Automatic System Lab F150 2 x Pt100 2TK  
input. Accuracy 0.015°C Resolution 0.0001  
Probes. -50 to +250°C and -80 to +450°  
R5232 o/p.

F150 Precision  
Temperature Indicator

### VAISALA (Handheld Humidity Indicator)

HMI41 Indicator and HM46 Humidity and  
Temperature Probe can be used for spot  
checking humidity and Temperature readings, the  
HMI41 calculates dewpoint and wetbulb  
temperature. High accuracy. Process  
temperatures up to 180°C.



HMI41 - Humidity and Temperature Probe

### TTI-22 True Temperature Indicator

Laboratory performance temperature indicator  
Mains or battery (more than 10 hrs from 2XAA)  
Accuracy: 0.001°C , Resolution: 0.0001°C  
Sensor Calibration : -200°C to +300°  
RS 232 and Ethernet ports.



TTI-22

HIRE  
COST

E

C

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I

C

G

C

H



Grant Oil/Water Bath

## Temperature Sources

### Baths

**Grant Oil/Water Temperature Bath** Range Ambient to 260° C.  
With built-in circulator.  
Temperature Stability +0.01°C.

**Sand Bath (Fluidised Bed)** Drum type bath, sand filled electrically heated, thermostatically controlled. Compressed air connection to fluidize.  
Maximum temperature 300°C, 240v.



Calisto

### Temperature Controlled Blocks/Plates

**Isotech - Block** Range: Ambient to 350°C.  
Includes temperature controller; 240Vac.  
Requires separate reference.

**Isotech – Hot Plates Model 975** Control temperature plate for IR calibration.  
50-350°C.

**Isotech - Calisto Black Body, Bath, Block** Temperature Block, range ambient to 250°C.  
Multiple insert arrangement. Stirred bath, black body inserts, 240v.

**Isotech Europa-6 Plus Temperature Calibrator** Range -65°C below ambient to + 140°C  
Dry block, Stirred liquid, Stirred ice, black body. Accept various probe diameters.  
Mains powered, 240v.



9100 Mini Block Calibrator

**Jofra D55SE Low Temperature Calibrator** Range -50 below ambient to +123°C. Insertion tube diameter 3/8" Accuracy, 0.3°C/0.5°F.  
Ambient 20°C (-30 to 150°C). Heating time to max 6 min. Cooling time to min 24 min, 240v.

**9100 Mini Block Calibrator** Portable micro-block dry well ideal for checking temperature probes and thermometers, Ambient to 300° C. Fixed inserts: 3, 5, 7, 10mm, 240VAC

| HIRE COST |
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| E         |
| E         |
| E         |
| D         |
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| I         |
| I         |
| E         |



Circular Truline

## Circular Chart Recorders

**Circular Pressure Chart Recorder** Mechanical drive 8 or 10" Chart. Chart 6 and 24 hour. Ranges 1, 10, 60, 100, 400bar.

**Circular Truline Chart Recorder** 1-4 channels universal input.



180mm/250mm  
Chart recorder

## Strip Chart Recorders

**100mm Chart Recorder DPRI 00 C and D 100mm** Accuracy 0.01% full scale. Universal inputs: T/C, RTD, mV, mA. C Version up to 6 analogue inputs. D Version up to 3 analogue, 4 digital traces. Supply: 85 to 264Vac. Speed: 1 to 6000mm/hr. 1 - 6 Inputs.

**180mm/250mm Chart Recorder** Records up to 32 inputs. Chart 180mm/250mm. Media Roll or fanfold. Input types T/C, RTD, mV, mA. Power supply 110 or 240Vac. Ranges fully user configurable. Prints user defined messages, date and time. 60 assignable alarms.



T-938 High  
Speed Recorder

## Flat Beds

**T-938 High Speed Recorder** Six channels and an internal memory capacity of 32K per channel.

## Paperless Recorders

**Honeywell VRX, Trendview** 100mm up to 6 points. 180mm display. Up to 48 channels removable data storage. 3.5" and superdisc 120MB. 500ms (12 inputs) many other facilities features. Up to 48 inputs.

**Honeywell SX/QX/QXe Eztrend** USB ports for keyboard and mouse. Up to 48 analogue inputs. Industrial rugged touch screen with rapid navigation. Independent chart and logging speeds. Remote access - advanced software data analysis at your PC. Screen sizes: 12" / 5.5" / 5".



SX/QX/QXe Eztrend

HIRE  
COST

POA

C/D

D/E

F/G

J

D/E

J



SL100



SL-ACC7000-01

## Loggers and Data Acquisition

- SL50** Button Temperature Logger.
- SL100** Temperature and Humidity Logger.
- SL7102** 2 Universal Inputs + 1 Temp. + Pulse + display.
- SL7104** 4 Universal Inputs + 1 Temp. + Pulse + display.
- SL-ACC7000-01** External RH Probe, for use with SL7102/4.
- SL120T** -30° to 80° C 12 bit Memory Size 2048.

## Multiple Data Acquisition

- DT505 Datataker** Number of inputs 10 differential, 30 single ended. Input 24mV to 100V. Scantime 1 second to 1 month.

*NOTE: Many other loggers are available with our range including, flow, gas analysis, power, pressure, humidity, temperature, water sampling and analysis etc.*

| HIRE COST |
|-----------|
| A         |
| B         |
| C         |
| D         |
| B         |
| B         |
| F         |

## Honeywell field solutions



### Harvesting your information

From stand-alone instruments and smart sensors to fully integrated systems, Honeywell offers a comprehensive portfolio of process measurement, field instrumentation and control solutions. Honeywell provides local support, expertise and training to help you achieve maximum return from your investment.



## Temperature and Humidity

### Sensors and Transmitters

Various types available. Please contact us.

### Infra Red Temperature and Thermal Imaging

#### Ultimax Jnr Hand Held Pyrometer

0-500°C with laser sighting.

#### Ultimax Precision Pyrometer

0-1000°C certified.

#### Fixed IR Monitoring

Various Ranges 0 - 2000°C.

#### Flir SD Thermal Imaging Camera

InfraCAM SD one-hand grip operation  
Simple point shoot and capture IR images  
Temperature Range -10° C to + 350° C  
Stores up to 1,000 infrared images (JPEG).

#### Flir i7 Thermal Imaging Camera

Compact design, lightweight 340g  
2.8" LCD colour display 120x120 pixel  
Spot, area and isothermal measurement mode  
Thermal sensitivity  $\leq 0.1^\circ\text{C}$  at 25°C.

#### Flir i50 Thermal Imaging Camera

Similar operation as SD above.  
Will take actual photo and IR image  
140 x 140 pixel IR resolution.  
2.3 megapixel digital camera, laser pointer.



Flir i7 Thermal Imaging Camera



Flir i50 Thermal Imaging Camera



HMI41

### Humidity

#### HMI41 Hand held Indicator and HM46 Humidity and Temperature Probe

Can be used for spot checking humidity and temperature readings, the HMI41 calculates dewpoint and wetbulb temperature. High accuracy. Process temperatures up to 180°C.

## Flow, Speed and Mass

#### KM4003 Digital Airflow Meter (Hot Wire)

Display: Digital LCD. Range 30.0m/sec.  
Temperature Range to 40°C.

### Air Flow

#### Testo 435 VANTE ANEMOMETER

0 – 999,999 m3/h.  
0 – 40 m/sec.  
Hold, min, max.  
See also PIPOT Tubes, page 4.



Testo 435 VANTE ANEMOMETER

| HIRE COST |
|-----------|
| POA       |
|           |
| C         |
| POA       |
| E         |
| J         |
|           |
| I         |
|           |
| K         |
|           |
| C         |
|           |
| C         |
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| E         |
|           |



KATflow 200

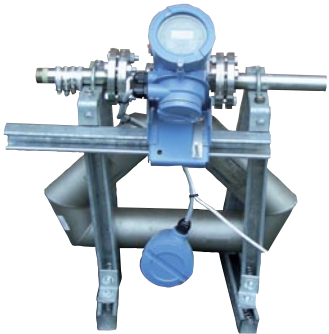
## Flowmeters – Liquid Gas

### Doppler Flowmeters - Liquid Sigma 7100

Non-invasive flow meter for use with full pipes. Pipe Size 0.1 to 2m. Velocity range: 0.1 to 5/ms (for water). Pipe material: Metal or plastic. Environmental Protection IP66.

### KATflow 200 Ultrasonic Flowmeter

Transit-time correlation measurement. Light-weight, hand-held unit, graphic display Easy to install clamp-on sensors with no process interruption. Suitable for all commonly used pipe materials. Ranging from 10mm to 3m diameters. Fully charged battery giving 24 hr operation. Internal data logger; operating system windows 2000, NT, XP, and Vista.



### DCT 7088 Ultrasonic Time of Flight - Liquid

Easy to install. Clamp on design. High accuracy +0.05% - time of flight Bi-directional flow. Simple menu driven setup. 65,000 point data logger:

### Micromotion CMF100-2700 Coriolis Mass Flowmeter

Flow and Density, Size 1", Liquid and Gas, High Accuracy Applications. Outputs: 4 – 20mA, Modbus, HART®.

CMF100-2700

### Pipe Thickness Gauge UTG55

For metal and plastic sheet and pipes. Range 1.5 to 99.9mm in steel.

Note: We are developing an in-house flow test rig with a capacity from 0.5" to 3"

## Speed

### KM6002 Digital Tachometer

Ranges 0.3 to 99999rpm. If min selected up to 500,000rpm can be measured. Accuracy 0.01% + 1 digit. Resolution 0.001. Optical range 0 to 1,000mm

### DT2236 Photo/ Contact Tachometer

Digital tachometer; strobe or contact facility. Indicators: rpm, m/min. ft/min. Range 0.5 to 100,000 rpm. With last value memory button.



DT2236

## Mass

### Weights 10gms to 100Kg

Traceable to National Standards. Please note there may be a higher cost of transportation incurred. Costs subject to weights required. Load cells also available up to 1 tonne.

## Pressure and DP

### Pressure Transmitters

Ranges from 0-10"WG to 0-10,000psig. Output 4-20mA.

### DP Transmitters

### Smart Differential Transmitters

Ranges from 0.1mb to 300mbar. Static pressure up to 150bar.



Rosemount 3051

## Level

### Ultrasonic level Probe

Measurement of liquids in open or closed vessels. The probe provides accurate, reliable level measurement for liquids, slurries and sludges. Measurement range 0.25 to 5 metres. Output 4-20A loop powered.

HIRE COST

E

J

I

K

A

B

C

POA

B

C

C



LMSxi

## Geological Landfill Monitoring

### LMSxi Landfill Monitoring System

Portable multi channel environmental monitor up to 7 gas analyses. Pressure, flow rates and temperature. Intrinsically safe unit. Automatic unattended data logging. Multi Function data storage. Gases monitored CO<sub>2</sub>, CH<sub>4</sub>, O<sub>2</sub>, H<sub>2</sub>, S, CO.

### Borehole Monitoring

#### Oil-Water Interface Meter

Used to determine the thickness of floating product above the water table. Can also detect and measure sinking layers of DNAPLs. Ultra slim SS Probe marked in imperial and metric.

## Gas Detection VOC Gases

### AutoFIM IS Portable FID

Built in logging enables storage and subsequent downloading measures ppm. Automatic flow control and flame ignition. Range 0-10,000ppm.

### Gastec Portable FID Mark 4/5

Sensitivity 1ppm on lower range. Response time under 2 seconds. Rechargeable battery gives 15 hours continuous operation. Analogue output 0 to 2V. Range 0-10,000ppm. GPS installed.

**Range Extender for above FID units.** For use in non oxygen location and 10% range.

### Viper PID. Hand held IS Unit

Measures two parts per billion up to 2000ppm. Three modes of operation, for atmospheric surveys and H and S. (COSHH mode). Built in data logger to enable down loading to a PC.

## Other Gases and Vapours

### Mercury Vapour Indicator - MVI

Hand held mercury vapour indicator. High performance pump enables immediate detection of tiny levels of mercury vapour.

### EP 542 – Ultrasonic Leak Detector

Ultrasonic detector used to find leaks eg: in compressed air installations, vacuum installations, in tanks, pipe systems, car windows etc. Also locates arcing and corona discharge in electrical systems as well as identifying mechanical malfunctions on movable parts, eg ball bearings and gears etc.

## Personal Protection

### Crowcon Tetra: 3

Intrinsically Safe Personal Multigas Meter. Detection of Oxygen depletion, CO, LEL, H<sub>2</sub>S, SO<sub>2</sub>. Loud 90dBA audible alarm . Built in vibrating alarm as standard. Data and event logging Simple IR interface to PC. Designed for use in demanding industrial environments. Despite its compact size the Tetra: 3 is ultra-rugged and water proof.



Auto FIM



Gastec Mark 5



EP 542 – Ultrasonic Leak Detector



Tetra 3

| HIRE COST |
|-----------|
| K         |
| D         |
| M         |
| J         |
| B         |
| K         |
| POA       |
| E         |
| B         |

## Emissions and Combustion

### Model 1100A – Paramagnetic Oxygen Analyser

Oxygen analyser for special applications, sampling O<sub>2</sub> content Industrial Paramagnetic with 0.01 resolution. Digital display, zero suppression, -10°C to 50°C operation. 4-20mA output. Certified to EEX N IIC T5 (T<sub>amb</sub> = 50°C).

### Tempest 50 - Emissions Analyser

The Tempest 50 is the complete tool for the modern industrial/ commercial combustion service engineer CO, O<sub>2</sub>, Optional pressure, temperature and NO.

### Tempest 100 - Emissions Analyser

Emissions data logging/printout for O<sub>2</sub>, CO<sub>X</sub>, NO<sub>X</sub> and SO<sub>X</sub>.



Tempest 50

## Air Monitoring

### Micro Dust Pro

Portable, real time monitor for assessing the concentration of suspended particulate Range 1 pg-3 to 2500 mgm-3 4 x AA Batts or mains/output 0.2.5V storage, includes calibration insert data logger: 15,700 data points.

## Liquid Analysis

### Hanna, HI9828 Multi-Parameter Water Quality Meter

Simultaneous display of dissolved oxygen conductivity, mV, pH, Pressure (atmospheric), Redox, Salinity Temperature and Total Dissolved solids. Log on demand up to 60,000 samples. USB connection to pc for data downloads. Meter waterproof to IP67, and probe to IP68.



Hanna 9828

### Aquacal 2000 Pure Water Conductivity and Resistivity Portable Kit

Conductivity range: 0 - 100 µS/cm.  
Resistivity range: 0 - 100 MΩ/cm  
Accuracy: 0.3% of range.  
Temperature range: 10.0 to + 110°C c/w stainless steel flow cell.



Aquacal 2000

## Sound, Vibration and Light

### GA210 Sound Level Meter

Measures SPL and exposure dose. Can be used to carry out all the checks to conform to the HSE sod regulations except for the spectrum analysis tests.

### Handheld Vibration Meter

Digital display, measures acceleration, velocity and displacement, selectable low pass filters. AC and DC outputs.

### Light meter 5200

Ranges 0-1000 Lux to 0-50,000 Lux.

## Inspection

### Endoscope Video Probe / Fibre Scopes

Various sizes/applications.

### Dust Thickness Elcometer 355

Top coating thickness system is specifically designed for the measurement of dust thickness. Typical applications include dust levels within ductwork in order to determine when duct cleaning should commence.



Elcometer 355

| HIRE COST |
|-----------|
| POA       |
| G         |
| J         |
| I         |
| H         |
| POA       |
| C         |
| A         |
| B         |
| POA       |
| I         |



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Referencing for a  
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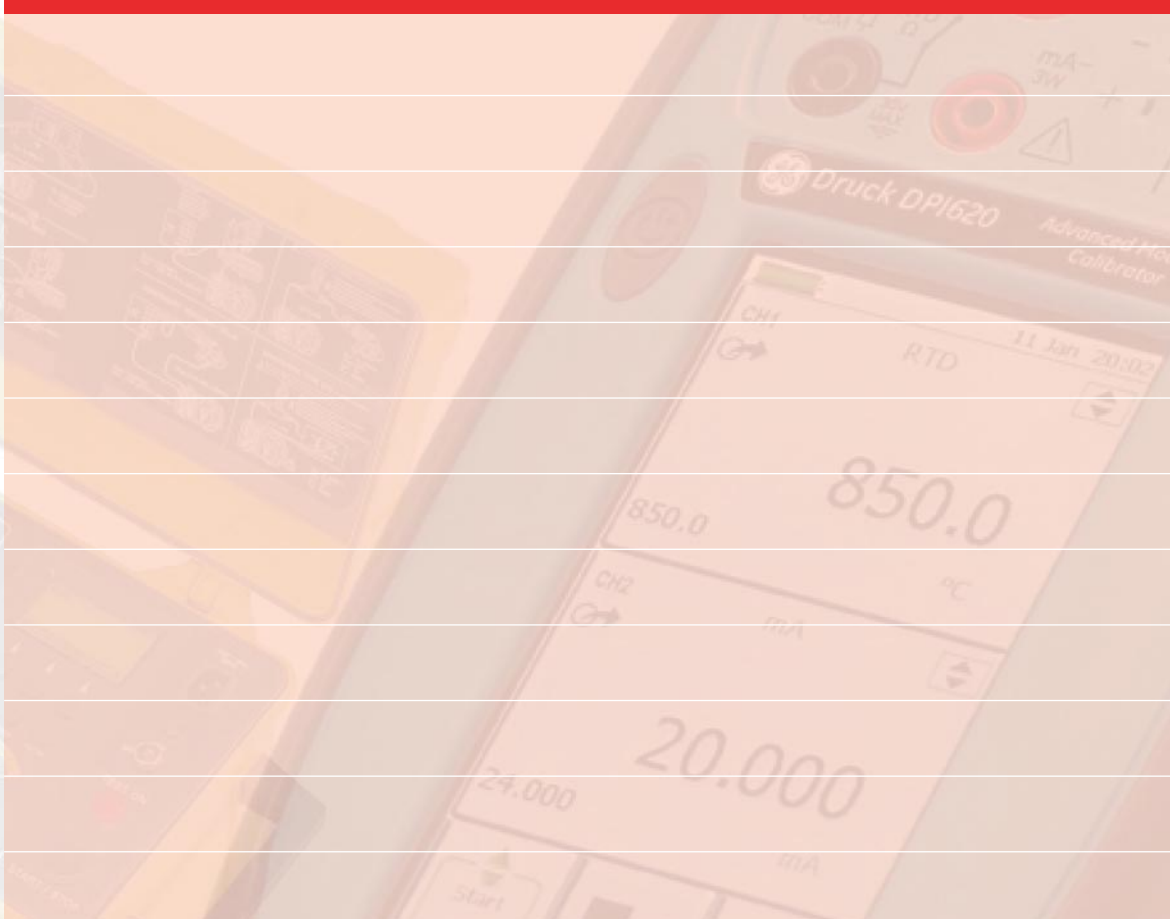
| Bands      | Price Per Week       |
|------------|----------------------|
| <b>A</b>   | £00.00 - £25.00      |
| <b>B</b>   | £26.00 - £50.00      |
| <b>C</b>   | £51.00 - £75.00      |
| <b>D</b>   | £76.00 - £100.00     |
| <b>E</b>   | £101.00 - £125.00    |
| <b>F</b>   | £126.00 - £150.00    |
| <b>G</b>   | £151.00 - £175.00    |
| <b>H</b>   | £176.00 - £200.00    |
| <b>I</b>   | £201.00 - £250.00    |
| <b>J</b>   | £251.00 - £300.00    |
| <b>K</b>   | £301.00 - £350.00    |
| <b>L</b>   | £351.00 - £400.00    |
| <b>M</b>   | £401.00 - £500.00    |
| <b>POA</b> | Price on application |

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## NOTES



# Measurement and Control for Your Industry

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- Workshop calibration and service
- Skilled shutdown labour
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- Frequency
- Temperature
- Infra Red Temperature
- Time
- Dimension
- DC Resistance
- DC Current
- Mass
- Relative Humidity
- AC Voltage
- Conductivity
- Pressure and Vacuum
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- Design
- Engineering
- Project Management
- Implementation
- Commissioning
- After Sales Support

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- Environmental
- Control Systems
- Measurement Systems

#### Typical Applications

- Environmental Monitoring/ SCADA
- Reactor Control System
- PLC Control Panel
- Power Monitoring System
- Data Collection and Radio System
- Container Burst Testers
- Gas Sampling and Analysis Panel
- Hygienic Level System
- Extruder Control System
- Argon Purge Schemes
- Auto Clave Control System
- Hydraulic Control System
- pH Control and Monitoring
- Event Management and Alarm Monitoring



## Keeping Your Process in Control

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