# Boiswood

GAS AND LIQUID CONTROL TECHNOLOGIES

Pressure & Vacuum

Flow

Level & Temperature

Tube & Fittings

HVAC/R

Custom Services



HVAC/R

Products and Services Catalogue



# BOISWOOD GAS AND LIQUID CONTROL TECHNOLOGIES







## WE'RE KNOWN FOR SELLING SOLUTIONS

Our journey started in 1989, when Boiswood was founded. As our knowledge and expertise grew, so did our vast range of products and services, and today, we are one of the country's most well respected and trusted suppliers of gas and liquid control technologies.

We are partnered with several high-quality, globally reputable manufacturers with a distinct range of products and services that offer unique features and benefits to EPC's, System Integrators, OEM's and End Users....our customers.

Our whole business culture centres around our genuine commitment to hands-on service and support, whenever and wherever this is required. We offer unparalleled advice and support, and our 'one stop shop' approach removes all the headache and hassle from our customers, ensuring you always get what you need on-time, on-budget and the perfect fit for your application.

We have over 30 years of successful experience in an extensive range of applications and processes within the markets we serve. Our visionary, technically astute and customer focused approach ensures we consistently add value. Working closely with our customers and supply partners ensures we stay up to date with the latest technologies, using our insight to facilitate the niche and specialist markets we serve.

You can rely on us to specify, supply and support all your gas and liquid control needs.

Using the most advanced products in the industry from world renowned suppliers, we offer an extensive catalogue of industrial, HVAC/R and BMS instruments such as differential pressure sensors, current transducers, room condition pressure monitors, humidity sensors, particle counters, displays, calibrators, power meters and more.

## INTELLIGENT-CONNECTED-SOLUTIONS

We can supply products to fit a variety of applications, verifying process conditions within

simple air management ducts to more critical accuracy applications such as those required within high purity, such as clean rooms, hospitals, vivarium's and research laboratories. Alongside this, we supply a well-rounded, fully connected solution to many M&E and HVAC/R contractors instrumentation challenges, through our general portfolio and specifically our Setra products. Always seeking sustainable solutions, our products integrate with Building Automation and Management Systems (BMS Systems) to control and monitor environments for efficiency and energy saving purposes.

## WE'RE TRUSTED BY...

**Balfour Beatty** 

MOTT MACDONALD М





















#### **LITE SERIES**

**Digital Visual Pressure Indicators** 









The Lite provides a simple, cost-effective, and accurate way to measure and display room differential pressures in areas that typically require manual verification.

#### **TECHNICAL DATA:**

±50 Pa up to 250 Pa Pressure Ranges • Available in "W.C. • ±0.5% FS Accuracy • 0-5, 0-10 or 4-20 mA Output (Field Selectable) • 24 VAC or 24 VDC Excitation • RGB Colour Display with LED Backlight • 3/16" Barbed Pressure Fittings • 0 to +50°C Operating Temperature

## **FEATURES & BENEFITS:**

Simple to Install • Red and Green Visual Alarm • Audible Alarm Optional • 3-Button Easy to Use Interface • Sleek and Attractive Wall Plate • Saves Preventative Maintenance • Fully User Configurable

**Differential Pressure Sensors** 







The 267 is the most rugged high accuracy, low differential pressure transducer available on the HVAC market - offering a vast range of customisable options fit for your application.

#### **TECHNICAL DATA:**

0.1" W.C. up to 100" W.C. Pressure Ranges • Optional LCD Display • NEMA 4 Rated Housing • Integral Static Pressure Probe • 24 VAC or 24 VDC Excitation • Up to ±0.25% FS Accuracy

#### **FEATURES & BENEFITS:**

Fast Delivery • Huge Global Install Base • Very Competitive on pricing • Most reliable differential pressure sensor on the market • Suitable for harsh environments

#### **FLEX SERIES**

**Environment Monitors** 









The FLEX provides a flexible room environmental control and monitoring solution in a simple-to-use package.

## **TECHNICAL DATA:**

Supports 3 Rooms (6 Parameters Each) • 7" Projected Capacitive Touch Screen • Onboard Sensor Optional • Monitor Or Control Optional • IP65 Rated for Wash-Down

#### **FEATURES & BENEFITS:**

Fast Delivery • BACnet Capable • High Performance • No Programming Required • Flush Mount to Wall



The SRIM2 is a high performance monitor for measuring low differential pressure in critical applications, perfect for anyone who requires cost-effective local monitoring and alarming.

#### **TECHNICAL DATA:**

Dead-ended On-Board Sensor • 3-Colour LCD Display for Easy Setup and Room Display • Configurable Audible & Visual Alarms • Accuracy down to  $\pm 0.05\%$  • Up to 2,500 Pa Pressure Range • Removable Faceplate for "no hassle" calibration

## **FEATURES & BENEFITS:**

Alarm on 4 parameters (Pressure, Temperature, RH and Door Sensing) • Save on Calibration and Installation • Maximise Safety



The Power Meter is a networked revenue grade power meter built on a versatile and powerful platform designed to meet the high demands for any submetering application.

#### **TECHNICAL DATA:**

Monitor 3, 12 or 48 loads on any combination of single and/or three phase systems • Monitor voltage, current, power, energy and many other parameters • Onboard display

#### **FEATURES & BENEFITS:**

Rotatable display to simplify installation • Field selectable communication protocols • Safe access without PPE • Easy installation and configuration



The MRX consists of general and critical multi-range pressure transducers, completely field selectable with universal design makes them perfect for any building management system.

#### **TECHNICAL DATA:**

MRG, MRC and MR1 models available • Up to 2,500 Pa Pressure Range • Field Configurable Probe, Range and Output • IP67 Rated Housing • LCD Display • Selection of Mounting Styles and Electrical Fittings

#### **FEATURES & BENEFITS:**

Fast Delivery • Field Selectable Pressure Ranges • Simple 5 step setup • Field Accessible Push-Button Zero & Span • Service and Retrofit Friendly

## **SRCM SERIES Room Condition Monitors**







The SRCM is the highest performance BACnet capable product for measuring low differential pressure in critical environments.

#### **TECHNICAL DATA:**

Dead-ended On-Board Sensor • 4.3" Colour LCD Display for Easy Setup and Room Display • Configurable Audible & Visual Alarms • Accuracy down to ±0.25% • Up to 1,000 Pa Pressure Range • BACnet Capable

#### **FEATURES & BENEFITS:**

Monitor 2 rooms with one single device • Save on Calibration and Installation • Maximise Safety

## **SRH SERIES Humidity Sensors**



The SRH Series meets the highest requirements in demanding climate control applications measurement parameters such as RH, Temp, Dew Point, Absolute Humidity and Mixing Ratio.

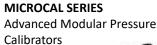


Wall Mount, Duct Mount or Outdoor Versions • Variation of Outputs • Temperature Measurement Optional • Modbus and BACnet Versions Available • Display Optional

#### **FEATURES & BENEFITS:**

Low cost of ownership • Excellent long-term stability • Sensor coating protects and extends performance

# sétra





The Microcal automated pressure calibrator is used as a stand-alone calibration standard for differential and gauge pressure sensors found in critical environments, developed in partnership with NASA.



Up to 8 hours of battery life • True low range dual reference pressure sensors with NIST traceability • Modular pressure references

#### **FEATURES & BENEFITS:**

Immediate ROI • Increased calibration ratios • Easy step-by-step user interface process • Pressure generation & monitoring modes to verify system performance





The SPC5000 and SPC7000 remote airborne particle counters are the most feature advanced available on the market.

#### **TECHNICAL DATA:**

Measures between 0.3  $\mu$ m to 25  $\mu$ m particle sizes • 0.1 CFM (2.83 LPM) flow rate • Up to 6 channel measurement • Wall Mount or Benchtop Versions Available • Pump Version Available • Combined RH & Temp Optional • Connects via Ethernet, USB or Wireless

#### **FEATURES & BENEFITS:**

Large icon driven colour touch screen display • Stores up to 45,000 sample records, 1,000 sample locations and 50 recipes • Displays and prints user-definable reports • Easy to clean and wipe down



The AQM500 and AQM7000 series air quality monitors measure qualities of temperature, relative humidity, CO2 and TVOC in select configurations.

#### **TECHNICAL DATA:**

Measures between 0.3  $\mu$ m to 25  $\mu$ m particle sizes • 0.1 CFM (2.83 LPM) flow rate • Up to 6 channel measurement • Wall Mount or Benchtop Versions • With Internal Pump • Combined RH, Temp, CO2 & TVOC Optional • Connects via Ethernet, USB or Wireless

#### **FEATURES & BENEFITS:**

Large Colour Touch Screen Display • User-Selectable Adjustable Particle Channel Sizes • Modbus RTU, ASCII or TCP Connectivity • Internal Audible Alarm with User Selectable Thresholds



The SRPM is our standard single room BACnet® capable room pressure monitor for measuring low differential pressures in many critical applications.

#### **TECHNICAL DATA:**

From  $\pm 0.1$  up to  $\pm 5''$  W.C. • Voltage, Analogue and BACnet® Outputs • Down to  $\pm 0.25\%$  FS Accuracy • 0 to  $\pm 50$ °C Temperature • 24, 120 or 240 VAC Excitation

#### **FEATURES & BENEFITS:**

On-Board Sensor • LCD Touch Screen for Easy Setup and Room Display • Configurable Audible & Visual Alarms • Easy Surface Mounting • 2-Layer Password Protection for Safety



The 3100 Series is ideal for OEMs that require consistent high levels of performance, reliability and stability utilising the sputtered thin film technology.

#### **TECHNICAL DATA:**

Pressure Ranges from 0-7 BAR up to 2,200 BAR • High Proof Pressures • Broad Choice of Outputs and Pressure Ports • Pressure and Temperature Measurement Combination • RoHS Compliant • From -40 to +125°C Temperature Ranges

#### **FEATURES & BENEFITS:**

Unbeatable Price/Performance Ratio • Compact Design • OEM Discount Available



The RFO and RFS flow rate monitors utilise paddlewheel design combining high visibility rotors with solid-state electronics compact into a neat panel mount housing.

#### **TECHNICAL DATA:**

4.5 to 24 VDC Pulsed Output • Polypropylene, Brass and Stainless Steel Materials •  $\frac{1}{2}$  Port Sizes • NPT and BSP threaded connections • Low and High flow ranges available

#### **FEATURES & BENEFITS:**

Unbeatable Price/Performance Ratio • OEM Discount Available • Low flow adapter supplied as standard



The Split Core Current Transformers provide a high accuracy current measurement over a wide dynamic sensing range for power metering applications.

#### **TECHNICAL DATA:**

From 20 to 400 Amps • 333mV Output at rated current

## **FEATURES & BENEFITS:**

Industries first UL 2808 certified CTs



PRESSURE GAUGES
Including Mechanical and Digital
Pressure Gauges and Indicators



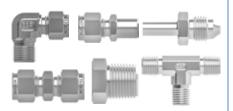
INSTRUMENTATION VALVES
Including Ball, Needle, Plug, Check.
Toggle, Relief and Quick Connects



MANIFOLD VALVES
Including Block, Bleed, Vent and
Gauge Manifolds



**CONTROL VALVES**A range of pneumatic and electric Globe, Bellows and Control Valves



INSTRUMENTATION FITTINGS
Including Twin Ferrule Compression
Tube, Pipe and Weld Fittings



HIGH PURITY FITTINGS
Including FaceSeal™, Microweld and
PFA/PTFE Fittings



FILTERS, STRAINERS & SEPARATORS
A range of filters, strainers and separators for process and vacuum



BURSTING DISKS
Including forward and reverse acting bursting disks and holders



**TUBING, PIPING AND HOSES**A selection of metal tubing, hoses and PTFE/PFA piping.



PRESSURE SWITCHES
Including Mechanical and Digital
Pressure Switches and Sensors



**SOLENOID VALVES**Including miniature, latching and cryogenic versions.



WIRES & SEALS
Including feedthroughs, sealing glands and packing glands.









## **CUSTOM SOLUTIONS**

Boiswood have been involved in several custom build projects to meet our customers' specific requirements, please visit our website to read our application successes or feel free to ask for more details.

Many of our customers call upon us for subassembly, service, repair and testing solutions from within our manufacturer-certified headquarters.

## Value Added Services



#### **In-House Service Centre**

We can offer manufacturer certified inhouse evaluation, repair, testing, servicing and assembly of our products from within our Boiswood HQ.



#### **Fast Turnaround**

Our local stocks allow us to quickly respond to requirements. We hold a vast range of products in stock so that they're always readily available.



## **Design Services**

Over the years we have been involved in many bespoke product designs and system build solutions for our customer base.



## **Local Technical Support**

We offer a technical helpline from our HQ as well as having a "man on the ground" for on-site support whenever and wherever this is required.



## **Training Services**

We provide a range of educational classes and training seminars that can be delivered from Boiswood HQ or on-site.



## **Response Times**

We endeavour to provide all our customers with unrivalled fast service with quick responses to both technical and commercial queries.







## **Products in Action**



## MR1 MultiSense™ Pressure Transducer

The MR1 pressure transducer is the ideal solution for any contractor, combing the flexibility of a multi-range with the performance of a single range sensor. The MR1 has 8 field-selectable pressure ranges and 3 field-selectable outputs, easily adjustable on the job with a flip of a switch or jumper. The MR1 uses an IP67/NEMA 4 rated housing and has a conduit fitting for easy wiring, making it the ultimate solution for any general HVAC application.

# **Critical Compliance Monitoring Project**

Our customer is a leader in their market of designing and installing building management systems (BMS) for the pharmaceutical industry. This specific application involved an instrumentation control panel.

## **Customer Requirements**

60 Differential Pressure Sensors to be designed into the equipment panels and installed on-site. The sensors had to be small in physical size in order to fit in their existing panels using DIN Rail mounting.

## Why Boiswood Was Successful

Our MR1 was chosen for its compact size, field selectable pressure ranges and neat housing with configurable mounting options.













Pressure indication

Simple green status

Red indicates alarm

Our Lite Visual Pressure Indicator provides a simple, cost-effective, and accurate way to measure and display room differential pressure to solve challenges in areas that require manual verification. The unit provides a clear indication of positive or negative room pressure using its intuitive light ring and has been cleverly designed to keep installation, set-up time and maintenance to an absolute minimum.

**Solutions That Save Lives** 

- Simple pressure indication with local display and digital output as standard
- Offers preventative maintenance and minimal installation costs
- Fully configurable via touch buttons mounted on sleek and attractive wall plate

Developed with Hospital, Medical, Pharmaceutical and Clinical environments in mind, we are here to help you with speedy production and unrivalled technical support.

Centred around years of engineering, development and customer feedback, we have produced a complete solution to stage as an upgrade to Magnehelic pressure gauges. Our pressure sensor includes the Local Display and Digital Output as standard.

| 1. Model |            |  |
|----------|------------|--|
| LITE     | Setra Lite |  |

| 2. Transducer Range |           |  |  |
|---------------------|-----------|--|--|
| R25WB               | ±0.25" WC |  |  |
| 0R5WB               | ±0.5" WC  |  |  |
| 001WB               | ±1" WC    |  |  |
| 050LB               | ±50 Pa    |  |  |
| 100LB               | ±100 Pa   |  |  |
| 250LB               | ±250 Pa   |  |  |

| 3. Accuracy |          |  |  |  |
|-------------|----------|--|--|--|
| D           | ±0.5% FS |  |  |  |
|             |          |  |  |  |

| 4. Special Options |  |  |  |  |
|--------------------|--|--|--|--|
| IR Inside Room     |  |  |  |  |
| AA Audible Alarm   |  |  |  |  |



## FAST 1

At the size of a standard light switch, the sleek and attractive wall plate allows the Lite to be installed in a matter of minutes.



## PREVENTATIVE 2

No more manually checking each room, save time and money by utilising the visual, audible and output options.



## SIMPLE TO 3

Full configuration is easy and userfriendly, with just 3 touch buttons to set your own custom parameters.





#### **Quick Mount Lite Kit**

Available with temporary quick mount and portable pre-assembled configurations, we have optimised these custom solutions to help combat viral outbreaks and diseases to assist integrators with rapid critical care setup challenges.





### **Construction Kit**

The Lite Construction Kit provides everything you need to monitor spaces around on-site construction or fume extraction. Simply place the kit outside the work area and run the tubing inside to set up continuous readings and alarming. With this kit you can have the confidence that the surrounding areas are remaining safe and clean.





## **AIIR Watch**

The Lite AIIR Watch unit has been designed as a portable and on-demand solution for generating negative room pressures. The room pressure is monitored using a standard in-built Lite, whilst sterilising exhaust air with a UVC light and HEPA filter. This compact and quiet unit is delivered user-ready for schools, nursing homes, dentist offices, hair salons, office buildings and more.







Our FLEX™ provides a flexible room environmental control and monitoring solution in a simple-touse package. An attractive flush-mount faceplate is complemented by an intuitive graphical display to meet any architectural requirement. The unit supports 3 rooms, monitoring up to 6 parameters for each room. An optional differential pressure sensor can be either factory-installed or ordered separately and installed about the ceiling. Integration with building automation systems is made easy through either BACnet/IP or BACnet MS/ TP network protocols.

The FLEX™ comes out-of-the-box ready to configure at the job site. No programming or training is required for setup. Just configure your sensors and network on-site and the FLEX™ is ready to go.

Now you can monitor and control pressure, temperature, humidity, and air changes per hour; plus, any two additional parameters you may require. Visualise the data by either hard wiring the sensors, or by mapping network objects via BACnet. The unit is flexible enough to meet any HVAC sensing or control requirements.

## **Going Beyond Room Pressure**

 Monitor and Control Up to 3 Spaces with 6 Parameters per Room (18 Total)

- 7" Touch Screen that works with Medical Gloves
- Integrates easily with BMS Systems and USB Cloning Feature saves installation time
- Designed to meet ASHRAE and USP standards for hospitals and pharmacies

The FLEX™ comes in two models, providing both the best price-to-performance as well as the oneof-a-kind feature set to meet the most difficult application needs.











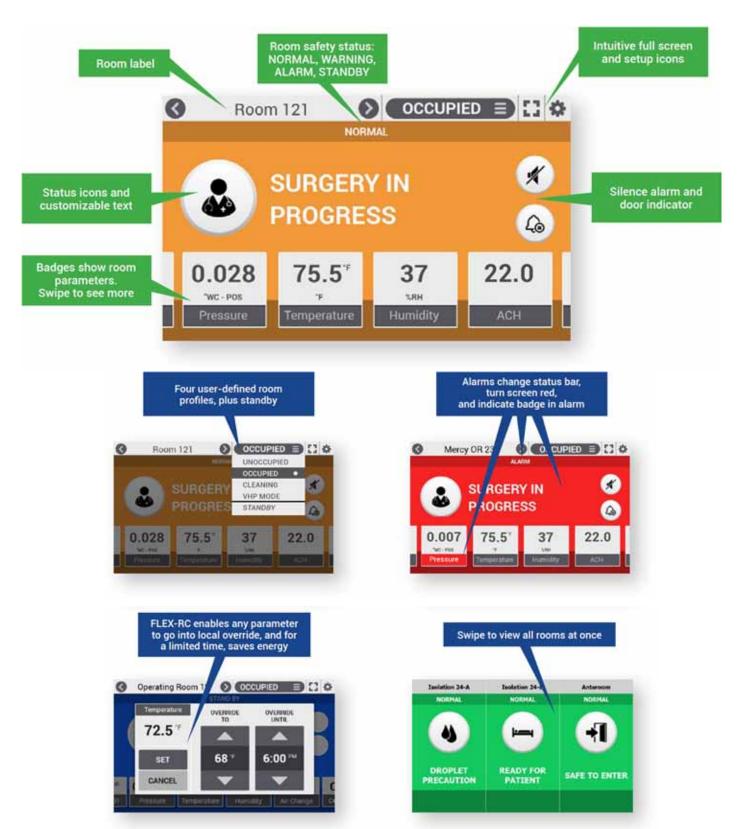




## The FLEX™ Display

The FLEX™ has a large, 7-inch touch screen display which provides swiping functionality and use with medical gloves. The high resolution display allows

the user to easily view the graphics and text from across the room.

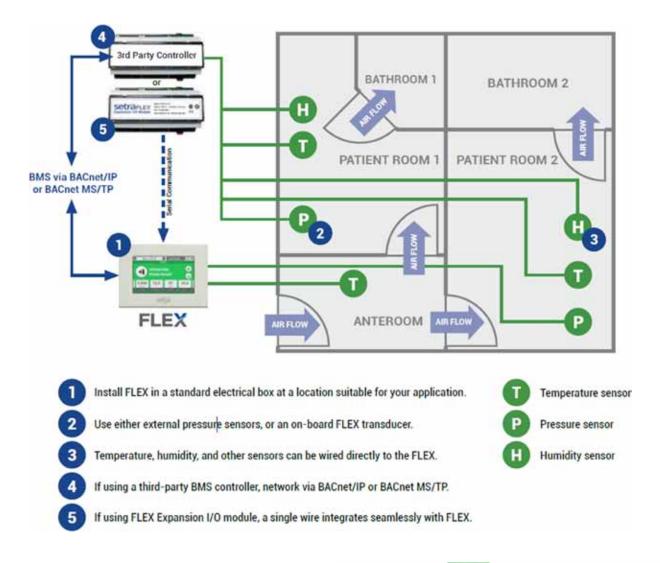


## **You Have Options**

Configure the FLEX™ multiple ways: wire sensors directly to the on-board I/O or via the optional Expansion I/O module. Or, if you prefer, pick up pre-

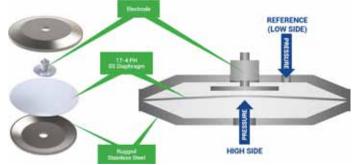
wired sensors from the third-party BMS controllers and map to FLEX™ via network configuration.

## Two Patient Rooms with Common Anteroom



## **Variable Capacitance**

Our patented variable capacitance technology is baded on all stainless steel micro-tig welded sensor. The radially tensioned diaphragm and insulated electrode form a variable capacitor. This provides the industry-best accuracy for very low pressures and unmatched long-term stability.



## **Flexible Installations**

FLEX™ was designed with construction installations in mind, and the flexibility often needed to accommodate project site challengers and installer preferences. Want the sensor in the wall? No problem. Order with an on-board transducer. Want all the pressure tubing above the ceiling? Order with external transducers; or combinations of both. Need additional I/O for your rooms? Order the Expansion I/O, and get support to hard-wire all the sensors you need.



## **Versus the Competition**







| Key Feature                         | Setra FLEX™ | Competitor #1 | Competitor #2 |
|-------------------------------------|-------------|---------------|---------------|
| 7" Touch Screen Display             | <b>~</b>    | ×             | <b>~</b>      |
| Support for 3 Rooms                 | <b>~</b>    | <b>~</b>      | ×             |
| User-Defined Room Profiles          | <b>~</b>    | ×             | <b>~</b>      |
| User-Defined Room Parameters        | <b>~</b>    | ×             | ×             |
| Support for 18 Parameters           | <b>~</b>    | ×             | ×             |
| Integrated Multi-Room Monitor       | <b>~</b>    | <b>~</b>      | ×             |
| BACnet/IP Communications            | <b>~</b>    | ×             | ×             |
| Configurable over the network       | <b>~</b>    | ×             | ×             |
| Expandable I/O                      | <b>~</b>    | ×             | ×             |
| USB Cloning Feature                 | <b>~</b>    | ×             | ×             |
| 0.25% High Accuracy Sensor Standard | <b>~</b>    | ×             | ×             |
| 100% Made in the USA                | <b>~</b>    | ×             | ×             |

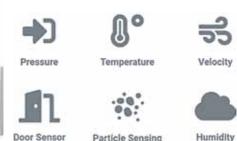
## **Continuous Environmental Monitoring System**

We are now introducing the new CEMS, Continuous Environmental Monitoring System, which provides real-time environmental data monitoring for your critical spaces and clean environments. This

system enables you to visualise data over time to demonstrate patterns and take strategic action to protect your facilities.







#### **MONITOR, TREND & ALERT**

CEMs software collects **real-time data** from in-room sensors and provides **actionable information** and feedback to users, including **data visualisation**, **alarm notifications** and **audit logs**.

## **3RD PARTY COMPATIBILITY**

CEMs software accepts inputs from both our sensors as well as **3rd party hardware.** We can help, regardless of if your application has existing hardware installed or if you're building a new facility.

#### LIMITLESS PARAMETERS

Designed to be adaptable, CEMs can easily accommodate any site specific needs. Common parameters to monitor include Pressure, %RH, CO2, Particle Counting, ACH and Door Status.

## **How it Works**



## Scale & Support



CEMs software can be installed through BACnet allowing the entire system to be customised for your site. We can provide support during and after the setup phase.

## Security



CEMs software can be deployed securely in the cloud, or on a standalone on-premises network. Encrypted is communicated via WiFi, Cellular Dadata ta or LAN.

## What is Hot Aisle Containment?

Hot aisle containment is a layout system for computing equipment in data centres. The aim of this system is to conserve energy and decrease cooling costs by managing the air flow (not letting the hot and cold air mix) for optimum efficiency.

As engineering has progressed, there are ways hot aisle containment can be monitored through different applications that use specific products, such as variable fan drives (VFDs), to prevent cold air and hot air from combining.

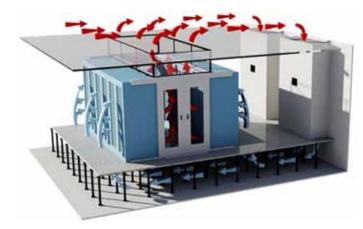
Boiswood offer a range of perfect products that can be used within hot aisle containment systems.

- displays and monitors room differential pressure in an area that demands manual verification. The easy-to-use visual display shows a ring of light; a simple green status and red that means there's an issue. This allows the managing staff to swiftly and simply correct an issue with the room pressure. The Lite has more features that include an always-on digital display that shows the pressure value, POS or NEG room mode and an alarm delay for door entry. The Lite is accurate and reliable, whilst also being cost-effective and simple to install. It integrates perfectly with the Setra FLEX.
- **2.** The 267 Very Low Differential Pressure

  Transducer is a high accuracy, low differential pressure transducer. It delivers accuracies of ±0.25%, 0.4%, 0.5% and ±1% FS and pressure ranges from 0.1" W.C. up to 100" W.C. The material and installation costs are reduced when using the model 267 as it has a NEMA 4 rated

enclosure and has an optional static pressure probe. The 267 is a reliable product that can be offered with fast delivery and is very competitive on price.

3. The RFO Rotorflow Flow Monitor is a combination of high visibility rotors and solid-state electronics that are compacted into panel mounting housings. The RFO provides accurate flow rate output which is perfect for a hot aisle containment application. The RFO offers an unprecedented price/performance ratio.







## **Power Meters**



Our new Power Meter is a networked revenue grade power meter built on a versatile and powerful platform designed to meet the high demands for any submetering application. Available in a 3, 12 or 48 load configuration, the meter enclosure and intuitive web portal interface significantly reduce installation time and cost per metering point.

Centred around years of engineering, development and customer feedback, we have produced a complete solution to stage as an upgrade for any application where power monitoring is required.

## **Networked Multi-Load Power** Meter

- Easy installation and configuration
- Field Selectable Communication (5-In-1)
- Multi-Load Monitoring and Data Logging
- Safe Access without PPE











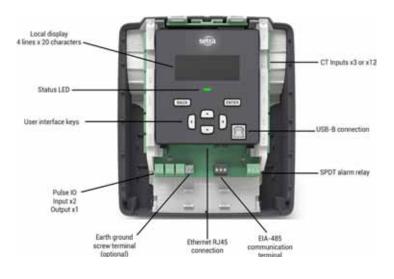


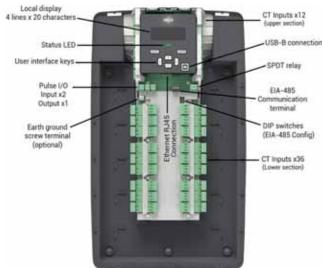
| 1. Model |             |  |
|----------|-------------|--|
| SPM      | Power Meter |  |

| 2. Loads |          |  |
|----------|----------|--|
| 03       | 3 Loads  |  |
| 12       | 12 Loads |  |
| 48       | 48 Loads |  |

| 3. Communication |                   |  |
|------------------|-------------------|--|
| E                | Ethernet & Serial |  |

| 4. Display |                  |  |
|------------|------------------|--|
| D          | On-Board Display |  |





3 or 12 Load Meter

48 Load Meter



## QuickStart Software and Web Portal

The QuickStart Software (available for free download) allows you to easily connect the meter into your PC, complete the setup to your desired configuration and upload the settings directly to the meter.

The Web Portal solution allows you to login online and access real-time data and make live changes to your power meters configuration.



EASY USB CONFIGURATION

Quick start, clone feature settings and configure anywhere.



FIELD SELECTABLE 2

Rogowski Coil and Split-Core CT compatible.



Increased flexibility and eliminates ordering mistakes.



DATA LOGGING

BROADBAND 5

% REVENUE GRADE ACCURACY

62 Days of data at 5 min intervals, backed up and end-user accessible.

80-600 VAC powered, dual-voltage inputs and self-powered (Vin1).

ANSI 12.20 Class 0.2 to revenue grade standards.



## **Installation Flexibility**

Every Power Meter was painstakingly designed to simplify installation. The enclosure of the power meter is its own NEMA 1 rated electrical enclosure, eliminating the need to purchase an electrical panel for the job. The field rotatable display allows the installer to put the conduit holes exactly where they need to be for any mounting configuration, even in the tightest locations in the electrical room.

## **Built on Customer Feedback**

All of the features on the new power meter have been centred around years of valued customer feedback. Comparing our old power meter models to the new, we are offering one of the most advanced power meters available on the market.





| Old Power Meters | Features                                | New Power Meter |
|------------------|-----------------------------------------|-----------------|
| X                | Data Logging                            | <b>✓</b>        |
| ×                | Installation                            | <b>~</b>        |
| X                | Power Odometer                          | <b>~</b>        |
| ×                | UL Listed Enclosure                     | <b>~</b>        |
| X                | Rotatable Display (Conduit Flexibility) | <b>✓</b>        |
| X                | IP40 High Voltage Cover                 | <b>~</b>        |
| X                | Intuitive Web Portal Configuration      | <b>~</b>        |

## Why Pay for Hidden Costs?

Our power meter incorporates fused leads, an IP40 rated electrical enclosure and suitable panel mounting to eliminate any hidden associated installation costs.

| Our Power Meter | Expense              | Leading Competitors |
|-----------------|----------------------|---------------------|
| \$\$            | Submeter             | \$\$                |
| \$              | Current Transformers | \$                  |
| \$0             | Fused Leads          | \$\$\$              |
| \$0             | Enclosure            | \$\$                |
| \$0             | Labor for Assembly   | \$                  |

When compared to leading competitor brands, our power meter solution is overall one of the most cost-effective solutions available.



## **Patrol Flex Rogowksi Coil**

Offered in 12", 24" and 36" lengths, the Patrol Flex is the most accurate Rogowski Coil in submetering. Rogowski Coils offer significant installation advantages over split-core CTs because of their lightweight, wide current range, mechanical

flexibility for mounting in tight quarters and easy placement around cable bundles and busbars. The Patrol Flex leads can be extended up to 300" without degrading the accuracy of the unit. The Patrol Flex is calibrated to be better than 0.5% accuracy for use in revenue grade applications.

#### **BEST IN CLASS LINEARITY**

Conventional CTs are wound over a magnetic iron core, which makes them more susceptible to saturation leading to linearity error. Engineers and contractors must adjust the phase shift of the meter to compensate in order to achieve an accurate reading. Rogowski Coils are wound over a non-magnetic core, giving them perfect linearity and improved accuracy over wide current ranges.

#### INSTALLATION SAVINGS

Installers can save significant time and labour using the Patrol flex due to its flexibility and ease of surrounding conductors of all sizes. shipping costs. A typical 100A Selecting a Rogowski Coil instead of a conventional split-core CT can current range expands to 3000A, save the installer over two hours per metering point in a challenging from 2Lbs to 20Lbs. Considering installation, which could be the difference between making and losing money on a job.

## Advantages:

High Accuracy: ±0.5% FS

• Lightweight: <0.5Lbs

Minimal Linearity Effect: ±0.2%

the average weight can increase three CTs are required to a monitor a 3-Phase motor, certain applications could require up to 65Lbs of shipping weight per metering point.

WIDE CURRENT RANGE

The Patrol Flex has a current range

of 5 - 5,000A yet weights less

than 0.5Lbs, drastically reducing

CT weights 2Lbs, however as the

#### **Advantages:**

- Easy Installation
- 3 Sizes (12", 24" and 36")

## **Advantages:**

- Reduce Inventory
- **Reduce Costs**













| Model                                          | MRC                                                                                                        | MRG                                                                                                        | 230                                                                                                       | 231                                                                                                           | 231RS                                                                                                                                                  | 239                                                                                                |
|------------------------------------------------|------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| Description                                    | Multi-Range Critical DP<br>Transducer                                                                      | Multi-Range General DP<br>Transducer                                                                       | Wet-to-Wet DP<br>Transducer                                                                               | Multi-Configurable Wet-<br>to-Wet DP Transducer                                                               | Multi-Configurable Wet-<br>to-Wet DP Transducer                                                                                                        | High Accuracy LowDP<br>Transducer                                                                  |
| Sample Applications                            | BMS Systems,<br>Hospitals,<br>Isolation Rooms,<br>Vivariums                                                | BMS Systems,<br>Hospitals,<br>Isolation Rooms,<br>Vivariums                                                | BMS Systems, Energy<br>Management,<br>Process Control,<br>Filter Monitoring                               | BMS Systems, Energy<br>Management,<br>Process Control,<br>Filter Monitoring                                   | BMS Systems, Energy<br>Management,<br>Process Control,<br>Filter Monitoring                                                                            | Leak Detection,<br>Filter Monitoring,<br>Cleanrooms,<br>Exhaust Pressure                           |
| Key Features                                   | Field-Selectable Range<br>and Output<br>4-Digit LCD<br>Simple 5-Step Setup<br>Push-Button Zero and<br>Span | Field-Selectable Range<br>and Output<br>4-Digit LCD<br>Simple 5-Step Setup<br>Push-Button Zero and<br>Span | Single Diaphragm<br>All Stainless Steel<br>NEMA 4 Rated<br>Low Line Pressure Effect<br>Fast Response Time | Optional LCD Display<br>Field-Selectable Range<br>and Output<br>Hinged Cover<br>Push-Button Zero and<br>Span  | Remote Design<br>Field-Selectable Range<br>and Output<br>Cuts Labour Costs<br>Push-Button Zero and<br>Span                                             | Fast Response Time<br>Low Thermal Error<br>Small Footprint<br>Captures Dynamic<br>Pressure Changes |
| Pressure Type                                  | Differential<br>(Unidirectional/<br>Bidirectional)                                                         | Differential<br>(Unidirectional/<br>Bidirectional)                                                         | Differential<br>(Unidirectional/<br>Bidirectional)                                                        | Differential<br>(Unidirectional/<br>Bidirectional)                                                            | Differential<br>(Unidirectional/<br>Bidirectional)                                                                                                     | Differential<br>(Unidirectional/<br>Bidirectional)                                                 |
| Pressure Ranges<br>(Showing Min/Max<br>Ranges) | 0.1" WC, 0.25" WC, 25<br>Pa, 50 Pa<br>(Field Selectable)                                                   | 0.5" WC, 1.0" WC, 2.5"<br>WC, 5.0" WC, 100 Pa,<br>250 Pa, 500 Pa, 1,000 Pa<br>(Field Selectable)           | -50 to +100 PSI                                                                                           | 5, 10, 25, 50 PSI (1)<br>10, 20, 50, 100 PSI (2)<br>25, 50, 125, 250 PSI (3)<br>(Field Selectable – 1 Option) | 5, 10, 25, 50 PSI (1) 7.5, 15, 37.5, 75 PSI (2) 10, 20, 50, 100 PSI (3) 15, 30, 75, 150 PSI (4) 25, 50, 125, 250 PSI (5) (Field Selectable – 1 Option) | 15 to +30" WC<br>-2.5 to +10 PSID<br>±7,500 Pa<br>-35 to +70 kPa                                   |
| Accuracy                                       | ±0.5% FS                                                                                                   | ±1.0% FS                                                                                                   | ±0.25% FS                                                                                                 | ±1.0% FS                                                                                                      | ±1.0% FS                                                                                                                                               | ±0.14% FS<br>±0.073% FS                                                                            |
| Operating<br>Temperature Range                 | 0 to +50°C                                                                                                 | 0 to +50°C                                                                                                 | -18 to +80°C                                                                                              | -20 to +85°C                                                                                                  | -20 to +85°C                                                                                                                                           | -18 to +80°C                                                                                       |
| Output                                         | 0 to 5 V<br>0 to 10 V<br>4 – 20 mA<br>(Field Selectable)                                                   | 0 to 5 V<br>0 to 10 V<br>4 – 20 mA<br>(Field Selectable)                                                   | 0 to 5 V<br>0 to 10 V<br>4 – 20 mA                                                                        | 4 – 20 mA                                                                                                     | 0 to 5 V<br>0 to 10 V<br>1 to 5 V<br>4 – 20 mA<br>(Field Selectable)                                                                                   | 0 to 5 V<br>1 to 5 V<br>1 to 6 V<br>0 to 10 V                                                      |
| Electrical Terminations                        | 1/2" Conduit<br>PG9 Strain Relief                                                                          | 1/2" Conduit<br>PG9 Strain Relief                                                                          | Barrier Strip Terminal<br>Block with Conduit<br>Enclosure                                                 | 1/2" Conduit                                                                                                  | 1/2" Conduit<br>Cable Version<br>Armour Jacket Version                                                                                                 | Cable Version<br>30 GA 9-Conductor                                                                 |
| Pressure Fittings                              | 3/16" Barbed Brass                                                                                         | 3/16" Barbed Brass                                                                                         | 1/4" Female NPT<br>3-Valve Manifold<br>5-Valve Manifold                                                   | 1/8" Female NPT<br>3-Valve Manifold<br>5-Valve Manifold                                                       | 1/4" NPT                                                                                                                                               | 1/8" Female NPT                                                                                    |
| Other Configurations                           | Base Mount<br>Universal<br>DIN Rail<br>Duct Probe                                                          | Base Mount<br>Universal<br>DIN Rail<br>Duct Probe                                                          | Viton® Seals<br>Buna-N Seals                                                                              | With LCD Display<br>Without LCD Display                                                                       | With LCD Display<br>Without LCD Display                                                                                                                | Special Excitation<br>Remote Calibration<br>Oxygen Cleaning                                        |

<sup>\*</sup>For special options not listed please contact us.













| Model                                          | 264                                                                                                                  | 265                                                                                                           | 267                                                                                                                                   | 269                                                                                                                  | AXD                                                                                                                      | 256                                                                                                |
|------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| Description                                    | Cost-Effective Low DP<br>Transducer                                                                                  | Cost-Effective Low DP<br>Transducer                                                                           | Very LowDP<br>Transducer                                                                                                              | Secure-Sense™ LowDP<br>Transducer                                                                                    | Industrial Pressure<br>Transducer                                                                                        | Rugged NEMA 4<br>Pressure Transducer                                                               |
| Sample Applications                            | HVAC/R Systems,<br>Energy Management,<br>VAV & AHU Control,<br>Lab & Fume Hood                                       | HVAC/R Systems,<br>Energy Management,<br>VAV & AHU Control<br>Static Ducts                                    | HVAC/R Systems,<br>Energy Management,<br>Static Ducts,<br>Furnace Draft,<br>Oven Pressurisation                                       | HVAC/R Systems,<br>Laboratories,<br>Pharmaceutical                                                                   | HVAC/R Systems,<br>Fuel Cell OEMs,<br>Industrial OEM,<br>Hydraulic Systems,<br>Compressors,                              | Process Control,<br>Chemical Control,<br>Pipeline Monitoring                                       |
| Key Features                                   | 3 Year Unconditional<br>Warranty<br>Minimal Installation Time<br>Fire Retardant Case<br>Reverse Wiring<br>Protection | Excellent Price to Performance Ratio Reduces Installation Costs Internal Regulation Reverse Wiring Protection | Optional LCD Display<br>NEMA 4 Rated Range<br>of Accuracies Range of<br>Electrical Terminations<br>Suitable for Harsh<br>Environments | High Accuracy Reduced<br>Calibration TimeSecure<br>Calibration (Required<br>Security)Enhanced<br>Thermal Performance | High Accuracy High Overpressure IP67 Rated Non-Oil Filled Design Long Term Stability Small Footprint Exceptional EMI/RFI | Low Cost<br>High Accuracy<br>NEMA 4/IP65 Rated<br>Wide Temperature<br>Range<br>Corrosive Resistant |
| Pressure Type                                  | Differential<br>(Unidirectional/<br>Bidirectional)                                                                   | Differential<br>(Unidirectional/<br>Bidirectional)                                                            | Differential<br>(Unidirectional/<br>Bidirectional)                                                                                    | Differential<br>(Unidirectional/<br>Bidirectional)                                                                   | Gauge, Compound,<br>Sealed, Vacuum                                                                                       | Gauge                                                                                              |
| Pressure Ranges<br>(Showing Min/Max<br>Ranges) | -0.05 to +100" WC<br>-25 to +1000 Pa                                                                                 | -0.1 to +100" WC<br>-25 to +1,000 Pa                                                                          | -0.1 to +100" WC<br>±7,500 Pa                                                                                                         | -0.05 to +10" WC<br>-15 Pa to +2.5 kPa                                                                               | 0 to 10,000 PSI<br>0 to -14.7 PSI<br>40 to 700 mBAR                                                                      | 0 to 10,000 PSI                                                                                    |
| Accuracy                                       | ±1% FS<br>±0.4% FS<br>±0.25% FS                                                                                      | ±1% FS<br>±0.4% FS<br>±0.25% FS                                                                               | ±1% FS<br>±0.4% FS<br>±0.25% FS                                                                                                       | ±1% FS<br>±0.4% FS<br>±0.25% FS                                                                                      | ±0.25% FS                                                                                                                | ±0.13% FS (at >25 PSI)<br>±0.25% FS (at <25 PSI)                                                   |
| Operating<br>Temperature Range                 | -18 to +79°C                                                                                                         | -18 to +65°C                                                                                                  | -18 to +65°C                                                                                                                          | -20 to +160°C                                                                                                        | -40 to +125°C                                                                                                            | -40 to +85°C                                                                                       |
| Output                                         | 4 – 20 mA<br>0 to 5 VDC                                                                                              | 4 – 20 mA<br>0 to 5 V<br>0 to 10 V                                                                            | 4 – 20 mA<br>0 to 5 V<br>0 to 10 V                                                                                                    | 4 – 20 mA                                                                                                            | 4 – 20 mA<br>0.5 – 5.5 V<br>0.5 to 10.5 V<br>0.5 to 4.5 V                                                                | 4 – 20 mA<br>0.1 – 5.1 V                                                                           |
| Electrical Terminations                        | Terminal Strip<br>1/2" Conduit                                                                                       | Terminal Strip<br>1/2" Conduit                                                                                | PG-13.5 Strain Relief<br>PG9 Strain Relief<br>9-PIN D-Sub<br>1/2" Conduit                                                             | Terminal Strip                                                                                                       | Cable Version<br>3-PIN Packard<br>M12 4-PIN<br>1/2" Conduit                                                              | 1/2" Conduit                                                                                       |
| Pressure Fittings                              | 3/16" Barbed Brass                                                                                                   | 1/4" Fitting                                                                                                  | 3/16" Barbed Brass<br>1/4" Female NPT<br>Static Duct Probe                                                                            | 3/16" Barbed Brass                                                                                                   | 1/4" Male NPT<br>1/8" Male NPT<br>7/16" SAE Ext                                                                          | 1/4" Male NPT                                                                                      |
| Other Configurations                           | With Cal Cert<br>Without Cal Cert                                                                                    | With Cal Cert<br>Without Cal Cert                                                                             | With LCD Display<br>Without LCD Display<br>MODBus Optional                                                                            | 2:1 Turndown Ratio<br>Base Mount<br>DIN Rail<br>LCD Display                                                          | 11-Point Cal Cert<br>High Overpressure<br>Pressure Restrictor<br>Clean for Oxygen                                        | With Cal Cert<br>Without Cal Cert                                                                  |

Product images are not shown to scale













| Model                                          | FLEX                                                                                                                                 | LITE                                                                                                   | SRPM                                                                                                | SRCM                                                                                           | SRIM2                                                                                                            | SRMD                                                                                                  |
|------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| Description                                    | Environmental<br>Monitor                                                                                                             | Visual Pressure<br>Indicator                                                                           | Room Pressure<br>Monitor                                                                            | Room Condition<br>Monitor                                                                      | Room Isolation<br>Monitor                                                                                        | Room Monitoring<br>Displays                                                                           |
| Sample Applications                            | Hospitals (ASHRAE),<br>Pharmacies (USP),<br>Server Rooms,<br>Data Centres                                                            | Hospitals,<br>HVAC/R Systems,<br>Data Centres,<br>Pharma Facilities                                    | Hospitals,<br>Pharma Facilities,<br>Vivariums                                                       | Hospitals,<br>Pharma Facilities,<br>Vivariums,<br>Cleanrooms                                   | Hospitals,<br>Operating Theatres,<br>Isolation Rooms,<br>Cleanrooms                                              | Hospitals,<br>Operating Theatres,<br>Pharma Facilities<br>Cleanrooms                                  |
| Key Features                                   | Monitor and Control Up<br>to 3 Spaces<br>6 Parameters Per Room<br>(18 in Total)<br>Integrates with BMS<br>ASHRAE and USP<br>Approved | Saves Preventive<br>Maintenance<br>Sleek and Attractive<br>Wallplate<br>User-Friendly<br>Configuration | Easy Surface Mounting<br>Setup<br>One Requires Zeroing<br>Once on Install<br>Industry Best Accuracy | Monitor up to 4<br>Parameters<br>Reduce Installation<br>Time<br>User-Friendly<br>Configuration | Removable Faceplate for<br>Easy Calibration<br>Flush Mount and Surface<br>Mount<br>Dead-Ended On-Board<br>Sensor | Single or Dual Display<br>Fits into standard<br>Electrical Gang Box<br>Easy to Read from Up<br>to 30' |
| Unit Type                                      | Monitor or Controller                                                                                                                | Monitor                                                                                                | Monitor                                                                                             | Monitor                                                                                        | Monitor                                                                                                          | Monitor                                                                                               |
| Pressure Ranges<br>(Showing Min/Max<br>Ranges) | ±0.05 to ±1.00" WC<br>±12.5 to ±250 Pa<br>(Also Available without any<br>On-Board Sensor)                                            | ±0.25 to ±1" WC<br>±50 to ±250 Pa                                                                      | ±0.1 to ±5" WC                                                                                      | ±0.05 to ±5" WC<br>±12.5 to ±1,000 Pa                                                          | -0.05 to +5" WC<br>-12.5 to +2,500 Pa<br>(Unidirectional/<br>Bidirectional)                                      | N/A                                                                                                   |
| Accuracy                                       | ±0.25% FS                                                                                                                            | ±0.5% FS                                                                                               | ±0.5% FS<br>±0.25% FS                                                                               | ±0.5% FS<br>±0.25% FS                                                                          | ±1% FS<br>±0.5% FS<br>±0.25% FS                                                                                  | ±1% FS                                                                                                |
| Operating<br>Temperature Range                 | 0 to +50°C                                                                                                                           | 0 to +50°C                                                                                             | 0 to +50°C                                                                                          | 0 to +50°C                                                                                     | -6 to +60°C                                                                                                      | -10 to +50°C                                                                                          |
| Display                                        | 7" Touchscreen (Usable with Medical Gloves                                                                                           | LED Touchscreen with<br>Light Ring                                                                     | LCD Colour<br>Touchscreen                                                                           | LCD Colour<br>Touchscreen                                                                      | 3-Colour Display with<br>Push Buttons                                                                            | 1" Illuminated LCD<br>Characters (RGB)                                                                |
| Parameters                                     | Pressure, Temperature,<br>Velocity, Door Sensor,<br>Particle Sensing,<br>Humidiity                                                   | Pressure                                                                                               | Pressure,<br>Door Sensor                                                                            | Pressure,<br>Temperature,<br>Humidity,<br>User-Defined (e.g. ACH)                              | Pressure,<br>Temperature,<br>Relative Humidity,<br>Door Sensor                                                   | Any                                                                                                   |
| <b>Output</b><br>(Consult for full details)    | 0 to 5 V<br>0 to 10 V<br>4 – 20 mA                                                                                                   | 0 to 5 V<br>0 to 10 V<br>4 – 20 mA                                                                     | 0 to 5 V<br>0 to 10 V<br>4 – 20 mA                                                                  | 0 to 5 V<br>0 to 10 V<br>4 – 20 mA                                                             | 0 to 5 V<br>0 to 10 V<br>4 – 20 mA                                                                               | 0 to 5 V<br>0 to 10 V                                                                                 |
| Communications                                 | BACnet® IP<br>BACnet® MS/TP                                                                                                          | N/A                                                                                                    | BACnet®                                                                                             | BACnet®                                                                                        | N/A                                                                                                              | N/A                                                                                                   |
| Pressure Fittings                              | 3/16" Barbed Brass                                                                                                                   | 3/16" Barbed Brass                                                                                     | 3/16" Barbed Brass                                                                                  | 3/16" Barbed Brass                                                                             | 3/16" Barbed Brass                                                                                               | N/A                                                                                                   |
| Other Configurations                           | Pressure Snubbers                                                                                                                    | Inside Room Option<br>Audible Alarm                                                                    | Higher Accuracy                                                                                     | Pressure Snubbers<br>Blank Faceplate                                                           | Wall or Duct Mount<br>Stainless Steel Bezel<br>Blank Faceplate<br>Pressure Snubbers                              | Metallic Bezel<br>R, G, or B Display                                                                  |

<sup>\*</sup>For special options not listed please contact us.













| Model                                          | 3100/3200                                                                                                                                                           | 3500                                                                                                                     | 2200/2600                                                                                                                  | 4000                                                                                                                     | 5000                                                                                                       | 6700                                                                                                       |
|------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| Description                                    | Compact OEM Pressure<br>Transducers                                                                                                                                 | Compact OEM Low<br>Pressure Transducers                                                                                  | General Purpose<br>Pressure Transducers                                                                                    | High Performance<br>Pressure Transducers                                                                                 | Low Pressure<br>Transducer                                                                                 | High Stability Pressure<br>Transducer                                                                      |
| Sample Applications                            | OEM Applications,<br>Hydraulics,                                                                                                                                    |                                                                                                                          |                                                                                                                            |                                                                                                                          |                                                                                                            |                                                                                                            |
| Key Features                                   | Cost Effective<br>High Proof Pressures<br>Broad Choice of<br>Configurations<br>ROHS Complaint                                                                       | Cost Effective<br>Low Pressure Ranges<br>Broad Choice of<br>Configurations<br>High Reliability and<br>Stability          | Submersible & Wash Down Enclosures High Stability CVD Sensing Element Broad Choice of Configurations                       | Long Term Stability<br>Sputtered Thin Film<br>Sensing Element<br>Submersible, High Temp<br>and Weather Proof<br>Versions | High Proof Pressures<br>Robust Case<br>Construction<br>Submersible and<br>General Purpose<br>Versions      | High Stability<br>Sputtered Thin Film<br>Sensing Element<br>Submersible and Wasi<br>Down Enclosures        |
| Pressure Type                                  | Gauge and Sealed                                                                                                                                                    | Gauge, Absolute and<br>Compound                                                                                          | Gauge, Absolute,<br>Compound and<br>Vacuum                                                                                 | Gauge, Absolute,<br>Sealed and<br>Differential                                                                           | Gauge                                                                                                      | Gauge and Absolute                                                                                         |
| Pressure Ranges<br>(Showing Min/Max<br>Ranges) | 100 to 25,000 PSI<br>7 to 1,600 BAR                                                                                                                                 | -15 to 600 PSI<br>-1 to +40 BAR                                                                                          | -15 to +6,000 PSI<br>-1 to +400 BAR                                                                                        | 0 to 10,000 PSI<br>0 to 690 BAR                                                                                          | 10 to 415" WC<br>25 to 1,000 mBAR<br>0.36 to 15 PSI                                                        | 0 to 6,000 PSI<br>0 to 400 BAR                                                                             |
| Accuracy                                       | 0.25% FS                                                                                                                                                            | 0.25% FS                                                                                                                 | 0.25% FS<br>0.15% FS                                                                                                       | 0.10%<br>0.08%                                                                                                           | 0.25% FS                                                                                                   | 0.15% FS                                                                                                   |
| Operating<br>Temperature Range                 | -40 to +125°C                                                                                                                                                       | -40 to +125°C                                                                                                            | -40 to +125°C<br>(Termination Dependant)                                                                                   | -54 to +135°C<br>(Termination Dependant)                                                                                 | -40 to +100°C<br>(Termination Dependant)                                                                   | -30 to +100°C<br>(Termination Dependant                                                                    |
| Output                                         | 4 – 20 mA<br>0 to 5 V<br>0 to 10 V<br>1 – 6 V<br>1 – 5 V<br>0.5 – 4.5 V (Ratiometric)                                                                               | 4 – 20 mA<br>0 to 5 V<br>0 to 10 V<br>1 – 6 V<br>1 – 5 V<br>0.5 – 4.5 V (Ratiometric)                                    | 100 mV<br>4 - 20 mA<br>0 to 5 V<br>0 to 10 V<br>1 - 6 V<br>1 - 5 V<br>0.5 - 5.5 V<br>0.2 - 10.2 V<br>0.1 - 5.1 V           | 30 mV                                                                                                                    | 4 – 20 mA<br>0 to 5 V<br>1 – 6 V<br>1 – 5 V<br>0.1 – 5.1 V<br>0.5 – 5.5 V                                  | 4 – 20 mA (<br>Undamped)                                                                                   |
| Electrical<br>Terminations                     | Industrial DIN 9.4mm<br>M12 x 1P (4-PIN)<br>Cable Version<br>Large DIN (43650A)<br>½" NPT Male Conduit<br>Amp Superseal 1.5<br>Deutsch DT04-4P<br>Packard MetriPack | Industrial DIN 9.4mm<br>M12 x 1P (4-PIN)<br>Large DIN (43650A)<br>Industrial DIN<br>Deutsch DT04-4P<br>Packard MetriPack | 4-PIN Micro DIN<br>NEMA 4 Cable<br>European Cable<br>IP67 Cable<br>Large DIN (43650)<br>Imersible Cable IP68<br>½" Conduit | 10-6 Bayonet Plug<br>IP66 Cable<br>Immersible Cable IP68                                                                 | Large DIN (43650)<br>M12 x 1 (5-PIN)<br>Immersible Cable IP68<br>½" Conduit                                | 10-6 Bayonet Plug<br>Imersible Cable IP68<br>Large DIN (43650)<br>M12 x 1 (5-PIN)<br>½" Conduit            |
| Pressure Fittings                              | G1/4" External 4" Male NPT 1/8" Male NPT 7/16" External (SAE) M14 x 1.5 Schrader SAE #4                                                                             | G1/4" External ¼" Male NPT 1/8" Male NPT 7/16" External (SAE) M12 x 1.5 (6G) G1/8" External                              | G1/4" External %" Male NPT 1/8" Male NPT %" Male NPT 7/16" External (SAE) Sink Weight Cone                                 | G1/4" Internal<br>G1/4" External<br>%" Male NPT<br>%" Male NPT<br>7/16" External (UNJF)<br>Sink Weight Cone              | G1/4" External<br>G1/4" Internal<br>¼" Male NPT<br>KF25 Flange<br>Sink Weight Cone<br>7/16" External (UNF) | G1/4" External<br>G1/4" Internal<br>%" Male NPT<br>½" Male NPT<br>7/16" External (UNF)<br>Sink Weight Cone |
| Wetted Materials                               | 17-4 PH SS                                                                                                                                                          | 316L Stainless Steel                                                                                                     | 17-4 PH Stainless Steel                                                                                                    | 17-4 PH / 15-7 Mo SS<br>Inconel®                                                                                         | 318 Duplex SS                                                                                              | 17-4 PH / 15-7 Mo SS                                                                                       |
| Other Configurations                           | With Restrictor<br>Cal Certificates<br>Oxygen Cleaning<br>ATEX Available                                                                                            | With Restrictor<br>Cal Certificates<br>Oxygen Cleaning                                                                   | Cal Certificates<br>Oxygen Cleaning<br>ATEX Available                                                                      | Low Thermal Error<br>Hastelloy Case for<br>Seawater                                                                      | Specific Calibration<br>ATEX Available                                                                     | ATEX Available<br>Lloyds Register<br>mBAR Range                                                            |

Pressure Regulators, Self Acting Control Valves, Pressure Sensors & Switches, Safety Relief Valves, Gauges & Manometers

Flow Meters, Switches & Control Valves, Solenoid Valves, UHP & Cryogenic Valves, Excess Flow Valves, Filters, Strainers, Pumps & Mixers

Level Sensors, Indicators & Switches, Submersible Transducers, Float Valves, Bleeding & Venting Valves, Steam & Condensate Traps, Thermocouples

Tube, Pipe, Weld and UHP Fittings, Quick Connects, Instrumentation Valves, Bottle Connectors, Tubing, Piping & Flexible Hoses

Differential Pressure Sensors, Room Condition Monitors, Power Meters, Particle Counters, Humidity Sensors & Calibrators

Installation Training, Subassemblies, Valve Sizing, Servicing & Repairs, Site Surveys



# Boiswood

**GAS AND LIQUID CONTROL TECHNOLOGIES** 

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