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AIR QUALITY

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DriSteem Humidification Systems

DriSteem is a premier provider of humidification, evaporative cooling, and water treatment solutions for commercial and industrial applications. DriSteem offers custom systems for critical indoor environments such as health care, data centers, and other facilities requiring precise control of moisture and cooling in the air.

STEAM GENERATION - GAS STEAM

GTS® HUMIDIFIER LX SERIES - GAS-TO-STEAM HUMIDIFIER

The GTS humidifier LX Series is the only gas-fired humidifier that combines the highest efficiency on the market with ultra-low NOx in a single design.

Thermal (combustion) efficiency

- 94% Higher Heating Value (HHV) of fuel
- 103% Lower Heating Value (LHV) of fuel

The GTS humidifier LX series offers

- Condensing design for highest efficiency and PVC venting.
- Ultra-low NOx certified to SCAQMD 1146.2 standards.
- Smart drain technology adjusts drain intervals automatically based on water quality.
- Universal water control for use with any water type, including RO/DI water.
- Modulating output with minimum 5:1 turndown for accurate humidity control.
- Outdoor and indoor models for application flexibility.

Specifications

- Capacity: Steam capacities from 50 to 600 lbs/hr (23 to 272 kg/h)
- Control: ±3% RH
- Applications: Designed to be space-conscious and streamlined
- Options: Water treatment system, climate-controlled outdoor enclosure, wall mount (LX-50 to LX-100), and support legs (LX-50 to LX-150)

All LX Series GTS humidifiers feature touchscreen display. This new display has all the industry-leading functionality of Vapor-logic® controller with an intuitive interface, animated graphics, and a Set-up Wizard for easier start-ups.

Controlled by

- Vapor-logic® controller

Dispersion devices

- Ultra-sorb® steam dispersion panel
- Rapid-sorb® dispersion tube system
- Single dispersion tube
- Space distribution units

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STEAM GENERATION - ELECTRIC STEAM

RTS® HUMIDIFIER RX SERIES

The RTS humidifier is loaded with state-of-the-art features that make it stand out against other steam humidifiers on the market. Compatible with all water types including tap, softened, deionized, and reverse osmosis, this unit continuously learns as it runs and automatically adapts to optimize steam output and overall performance.

The new RTS humidifier offers a next generation breakthrough in resistive steam humidifiers, with ease of maintenance, installation flexibility, and environmental protection, while continuing DriSteem's legacy of sustained quality and dependability.

RTS humidifier RX series from DriSteem

RTS humidifier RX series with floor stand

FLEXIBLE

- Capacity from 2.7 to 147 kg/h, link up to 8 units for capacity up to 1176 kg/h.
- Integrated drain water tempering automatically cools discharged hot water to 60 °C.
- Disperses steam through ductwork with dispersion tubes or panels, or directly into a room with a Space Distribution Unit (SDU) mounted remotely or above the RTS humidifier.
- Enclosures for virtually any environment: outdoor or indoor, or factory-HVAC installed.

ACCURATE

- Standard solid-state relay (SSR) operation on every unit.
- Control to ±1% RH.
- Optional mini-drain operation mode allows for 24/7 continuous steam output.

EASY TO MAINTAIN

- DriSteem's smart drain technology adjusts drain intervals automatically based on water quality. Draining removes precipitated minerals from the tank.
- User-adjustable water skimmer skims off floating minerals.
- End-of-season auto-drain minimizes microbial growth.
- Tank bottom is dual sloped with a side exit drain port located at the bottom of the slopes to ensure complete draining of tank.

COMPREHENSIVE CONTROL WITH VAPOR-LOGIC CONTROLLER

- The RTS humidifier with the Vapor-logic® touchscreen controller sets new standards for control in electric steam humidification:
- Interoperability allows communication with building automation systems via Modbus® or BACnet® or with optional LonTalk® protocols.
- Safety presets initiate fill and drain cycles and keep the humidifier cool and safe if sensed conditions, though unlikely, could be hazardous.
- Web-enabled control allows you to set up, view, and adjust humidifier functions via Ethernet, either directly or remotely through a network.

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VAPORMIST® ELECTRIC HUMIDIFIER

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The Vapormist humidifier is a compact, cabinet-style unit perfect for finished spaces and compatible with all water types and numerous dispersion options. Installation is a snap, just attach the frame to a supporting structure and connect electrical and water services.

Features and Benefits

- Compatible with all water types (tap, softened, deionized, reverse osmosis)
- Disperses steam through ductwork with dispersion tubes or panels, depending on the dispersion method chosen.
- Passed rigorous tests to meet IBC standard and OSHPD pre-approval for Seismic Certification option
- Made in the USA

Specifications

- Capacity: Steam capacity from 6 to 102 lbs/hr (2.7 to 46 kg/h), link up to 16 units for capacity up to 1632 lbs/hr (740 kg/h)
- Control: ±3% RH
- Applications: Designed to be space-conscious and streamlined
- Options: Water treatment system, climate controlled outdoor enclosure, wall mount (LX-50 to LX-100), and support legs (LX 50 to LX-150)

Controlled by

Vapor-logic® controller

Dispersion devices

- Ultra-sorb® steam dispersion panel
- Rapid-sorb® dispersion tube system
- Single dispersion tube
- Space distribution

VAPORSTREAM® ELECTRIC HUMIDIFIER

From providing comfort humidity to meeting the strictest clean-room requirements, the Vaporstream electric humidifier is an industrial-grade unit designed to meet the humidification demands of any building environment. Vaporstream models and options include multiple control capabilities, a broad capacity range, and compatibility with all water types.

Features and Benefits

- Accurate, responsive control with Vapor-logic® controller
- On-off or time-proportioned control, with solid-state relay option
- Disperses steam through ductwork or directly into a space
- Passed rigorous tests to meet IBC standard and OSHPD pre-approval for Seismic Certification option
- Made in the USA

Specifications

- Capacity: Steam capacity from 6 to 102 lbs/hr (2.7 to 46 kg/h), link up to 16 units for capacity up to 1632 lbs/hr (740 kg/h)
- Control: ±1% RH, Vapor-logic® controller
- Applications: Designed to be space-conscious and streamlined
- Options: Water treatment system, weather cover, and climate-controlled outdoor enclosure

Controlled by

Vapor-logic® controller

Dispersion devices

- Ultra-sorb® steam dispersion panel
- Rapid-sorb® dispersion tube system
- Single dispersion tube
- Space distribution units
- Area-type fan

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Humidi-tech humidifier from DriSteem

HUMIDI-TECH® HUMIDIFIER

The DriSteem Humidi-tech humidifier is a compact, cabinet-style unit compatible with all water types (tap, softened, deionized, reverse osmosis) and numerous dispersion options. Installation is a snap - just attach the frame to a supporting structure and connect electrical and water services.

Available matching Space Distribution Units disperse steam with no visible vapor trail, making Humidi-tech ideal for use in finished spaces.

VERSATILE

- Capacity from 2.7 to 46 kg/h, link up to 16 units for capacity up to 740 kg/h.
- Disperses steam through ductwork with dispersion tubes or panels, or directly into a room with a Space Distribution Unit (SDU) mounted remotely or on top of the Humidi-tech.
- Control to ±3% RH.
- On-off or time-proportioned (TP) control for application control in most environments; solid-state relay (SSR) option for tight control.
- Electronically monitored water level ensures safe and reliable operation.

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XT SERIES ELECTRODE HUMIDIFIER

XT Series electrode humidifiers provide humidification for a wide range of buildings, including health care, commercial, industrial, and government facilities. Easy installation and cylinder replacement together with minimal maintenance make XT Series one of the most affordable humidification systems to purchase and install.

XT Series Electrode Humidifier With Outdoor Enclosure

The XTP humidifier with outdoor enclosure is made to be mounted to the side of an air handler or exterior wall and is CSA/ETL certified for outdoor operation.

It includes

- NEMA 3R rated enclosure with operating temperature range between 40°F (5°C) and 120°F (50°C)
- Enclosure panels that are fabricated from 14 and 18-gauge G-90 galvanized steel for corrosion resistance with weather-tight silicone sealant.
- An optional heating package with a thermostatically controlled heater lowers the operating range to -40°F (-40°C).

Mini-drain Setting

A mini-drain setting can now be enabled on the XT electrode humidifier to help maintain output capacity and prevent excessive swings in conductivity by performing frequent drains and water fills that are so small that they result in a continuous boil in the steam cylinder.

Simply confirm the Vapor-logic® firmware is version 06.02.04 or greater.
Main > Diagnostics > Humidifier > Firmware version
(New tab)Watch a video with firmware update instructions
Navigate to the mini-drain setting on the Vapor-logic® controller:
Main > Setup > XT management > Mini Drain > Enable
(New tab)Watch a video walk-through of this process

Features and Benefits

- Easy to maintain
- Adaptable
- Automatic drain and fill events for optimized humidifier performance based on water type
- Mini-drain setting can be enabled on Vapor-logic controller
- Outdoor enclosure option for wall/ AHU installation
- Made in the USA

Specifications

- Capacity: Steam capacities from 5 to 287 lbs/hr (2 to 130 kg/h)
- Control: Vapor-logic® controller
- Applications: Designed for easy installation and minimal maintenance
- Options: User-selected drain water tempering

Controlled by

Vapor-logic® controller

Dispersion devices

- Ultra-sorb® steam dispersion panel
- Rapid-sorb® dispersion tube system
- Single dispersion tube
- XT steam blower

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XTR ELECTRODE HUMIDIFIER

The XTR electrode humidifier provides humidification for a wide range of buildings, including residential and light commercial applications. Replaceable cylinders make this humidifier ultra-easy to maintain.

Features and Benefits

- Easy to operate
- Easy to maintain – just replace the cylinder
- Affordable to buy; economical to operate
- Disperse steam into ductwork or open spaces
- Automatic drain and fill events for optimized humidifier performance based on water type

Controlled by

On-board push-button controller

Specifications

- Capacity: Steam capacities from 5 to 11 lbs/hr (2.5 to 5.1 kg/h)
- Control: On-board push-button controller
- Applications: Designed for easy installation and minimal maintenance
- Options: XTR fan pack for finished stud walls

Dispersion devices

- XTR dispersion tube for ducts
- XTR steam blower top mounted or wall mounted
- XTR fan pack for finished stud walls

STS® HUMIDIFIER

DriSteem's STS® (steam-to-steam) humidifier creates chemical-free humidification steam using boiler steam as its energy source. Boiler steam in the heat exchanger vaporizes clean fill water into humidification steam. No boiler steam or chemicals ever enter the humidified space, instead they return to the boiler.

Features and Benefits

- Chemical-free humidification using on-site boiler steam
- Easy retrofit for steam injection humidifiers
- Passed rigorous tests to meet IBC standard and OSHPD pre-approval for Seismic Certification
- Made in the USA

Specifications

- Capacity: Steam capacities from 20 to 1600 lbs/hr (9.1 to 726 kg/h)
- Control: ±1% RH, Vapor-logic® controller
- Applications: Designed to use on-site boiler steam
- Options: Water treatment system, weather cover, climate-controlled outdoor enclosure, and Drain-kooler™ water tempering device

Controlled by

Vapor-logic® controller

Dispersion devices

- Ultra-sorb® Model LV & LH Steam Dispersion Panel (Non-pressurized)
- Ultra-sorb® Model XV Steam Dispersion Panel (Pressurized)
- Rapid-sorb® dispersion tube system
- Single dispersion tube
- Area-type™ fan

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STEAM DISPERSION

ULTRA-SORB® MODEL XV STEAM DISPERSION PANEL

Integral condensate management

An industry first for pressurised steam, Ultra-sorb Model XV vaporises dispersion-generated condensate and returns pressurised condensate to the boiler without additional pumps, valves, vents, or controls.

Features and Benefits

- Most efficient dispersion
- Zero water waste
- All condensate returns to the boiler while still hot, saving energy, water, and boiler chemicals
- Lowest heat gain
- High-efficiency insulated tubes and an insulated steam delivery header reduce airstream heat gain by up to 85%
- Made in USA

Specifications

- Capacity: Wide capacity range and options, steam capacity up to 2,720 lbs/hr (1,235 kg/h)
- Applications: Designed for rapid, drip-free absorption, steam does not condense on downstream devices
- Options: 316 stainless steel construction, seismic certification

ULTRA-SORB® MODEL LV & LH STEAM DISPERSION PANEL

Models LV and LH disperse steam generated by pressurized steam boilers or by non-pressurized steam generators such as DriSteem's GTS® humidifier, STS® humidifier, Vaporstream® humidifier, Vapormist® humidifier, and XT series humidifiers.

Features and Benefits

- Most versatile dispersion
- Efficient
- Lowest installation cost
- Made in USA

Specifications

- Capacity: Wide steam capacity range, up to 4,000 lbs/hr (1814 kg/h)
- Applications: Designed for rapid, drip-free absorption, steam does not condense on downstream devices
- Options: High-efficiency insulated tubes, 316 stainless steel construction, seismic certification

ULTRA-SORB® MP STEAM DISPERSION PANELS

DriSteem steam dispersion units disperse steam generated by pressurized steam boilers or by non-pressurized steam humidifiers. The steam is distributed through ducts, air handlers, and even directly into finished spaces, where it is released in the airstream.

DriSteem's Ultra-sorb Model MP is a multi-purpose humidifier dispersion panel for both pressurized and atmospheric steam applications in AHUs or ducts.

- Wide steam capacity range, up to 1235 kg/h
- Same side steam inlet and drain for reduced piping and a clean installation in AHUs or ductwork.
- In-frame condensate drain piping maximizes available face dimensions and minimizes blank-off requirements.
- Integral steam header allows clear space on exterior walls of AHUs.

HIGH-EFFICIENCY TUBE OPTION

Ultra-sorb MP steam dispersion panel are available with DriSteem's industry-leading high-performance dispersion tube insulation.

Insulated dispersion tubes produce less condensate, leaving more steam available for humidification, and increasing the capacity of each tube. As a result, fewer tubes may be required to meet application requirements, further lowering condensate production and heat gain while reducing resource consumption and cost.

Ultra-sorb Model MP steam dispersion panel from DriSteem with high-efficiency insulated tubes

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RAPID-SORB® DISPERSION TUBE SYSTEM

Rapid-sorb dispersion tube systems are designed for applications where multiple tubes are needed to accommodate load and/or when available non-wetting distance is limited. Rapid-sorb dispersion tube systems disperse steam generated by non-pressurized steam generators such as DriSteem's GTS® humidifier, STS® humidifier, Vaporstream® humidifier, Vapormist® humidifier, and XT Series humidifiers.

Features and Benefits

- Better non-wetting distance compared to standard dispersion tubes
- Models available in sizes from 10″ x 10″ (254 x 254 mm) and up
- For horizontal or vertical airflow with header inside or outside of duct
- Available with high-efficiency dispersion tubes
- Made in USA

Specifications

- Capacity: Steam capacity up to 2100 lbs/hr (953 kg/h)
- Applications: Designed for applications where multiple tubes are needed to accommodate load and/or when available non-wetting distance is limited
- Options: Add DriSteem's high-efficiency tube option to achieve significant energy savings

MINI-BANK® HUMIDIFIERS

Mini-bank humidifiers are designed to accommodate small ducts and short non-wetting distances. They are factory assembled.

Features and Benefits

- Accommodate small ducts and short non-wetting distances
- Factory assembled
- Made in USA

Specifications

- Capacity: Steam capacities up to 84 lbs/hr (38 kg/h).
- Applications: Pre-assembled for small ducts

SINGLE DISPERSION TUBES

Single dispersion tubes are an excellent choice for lower capacity applications. Add tubes for more capacity.

Features and Benefits

- Available with a wide range of steam capacities and dispersion tube lengths
- Suitable for longer non-wetting distances
- Made in USA

Specifications

- Capacity: Steam capacities to 525 lbs/hr (238 kg/h)
- Applications: Suitable for, but not limited to, small-capacity systems.

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EVAPORATIVE COOLING & HUMIDIFICATION

DriSteem's Adiatec products provide evaporative cooling and humidification in multiple zones and in a wide variety of applications. Humidify to enhance indoor air quality, manufacturing processes, material longevity, and comfort while taking advantage of the free cooling and energy savings inherent with this technology.

Free Cooling and Energy Savings
DriSteem's Adiatec® systems provide evaporative cooling and humidification in multiple zones and in a wide variety of applications.

EVAIR™ DEHUMIDIFIERS

DriSteem's refrigerant-based dehumidifiers remove excess moisture from indoor air in a wide range of commercial environments. They can be applied for continuous control or problem remediation. Available to ship within 5 business days or less.

Perfect for manufacturing, food processing, breweries, and storage applications

EVAIR™ DEHUMIDIFIER RL SERIES

These refrigerant-based dehumidifiers are an excellent fit for any commercial application requiring capacity from 70 pints / day (3 lb/h) to 710 pints / day (31 lb/h) @ 80°F, 60% RH

All models are available to order now! Comes with a 5 year warranty.

The Evair™ dehumidifier RL series complements DriSteem's existing lineup of world-class humidification, evaporative cooling, and water treatment systems, helping implement comprehensive HUMIDITY CONTROL solutions like never before.

Dehumidification removes moisture from the air, offering protection against condensation and frost, as well as against mold, mildew, and fungus. The DriSteem Evair™ dehumidifier RL series dehumidifies the air coming into the unit by passing it over an evaporator coil to drop the air temperature below the dew point of the air. Moisture is removed from the air and drained out of the unit to a common floor or waste drain. The air is then reheated in the condenser coil and exits the unit. Dehumidification occurs until the set point is reached, then shuts off until the control determines a need for operation.

Maintaining a controlled environment will:

- Prevent damage to sensitive instruments in processing environments
- Support the plant grow cycle for indoor agriculture such as cannabis
- Minimize the risk of equipment failure in manufacturing facilities
- Preserve important materials and artifacts in storage space and museums
- Safeguard against the spread of viruses and bacteria in dry storage and warehouses
- Comprehensive control with the D77 Controller or BACnet humidistat options

The optional D77 control allows the user to set and adjust the humidity setting and turn dehumidification on or off from a convenient location. In this application, the RL series uses an onboard sensor to monitor the relative humidity (% RH) in the space in which it is located and displays the measured relative humidity on the digital display.

- Control range: 35% – 80% RH
- Accuracy: +/-5% RH

Features and Benefits

- The most water removal for your investment with 0.03 or 0.06 gallons per minute
- Can be suspended or installed on ground level
- Ducting allows you to separate the unit from the environment, saving space and increasing ease of access
- 5 year warranty included

Specifications

- Capacity: from 70 pints / day (3 lb/h) to 710 pints / day (31 lb/h) @ 80°F, 60% RH
- Control: ±5% RH
- Applications: perfect for manufacturing, food processing, breweries, and storage applications

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WATER TREATMENT SYSTEMS

DriSteem's reverse osmosis (RO) and water softening systems meet varying levels of water quality for any application. Designed to be used as stand-alone systems or with DriSteem's humidification and evaporative cooling products, they are also capable of supplying high-purity treated water for any process.

DriSteem's RO systems remove over 98% of dissolved solids, significantly reducing or eliminating humidification equipment maintenance.

Remove Over 98% of Dissolved Solids
DriSteem's reverse osmosis (RO) and water softening systems meet varying levels of water quality for any application.

RO 200 SERIES WATER TREATMENT SYSTEM

RO 200 series water treatment system
Designed for DriSteem equipment and stand-alone operation, the RO 200 series reverse osmosis water treatment system significantly reduces or eliminates maintenance on downstream equipment by removing over 98% of dissolved solids from supply water.

Water treatment that works with building automation systems
The Vapor-logic® controller in our compact RO 200 series reverse osmosis water treatment system provides menus for all system functions, with a web interface, and integrates with Modbus®, BACnet®, and LonTalk® building automation systems.

Built-in TDS Monitoring
The RO-200 system includes a built-in TDS sensor that sends notifications to the BAS system when the total dissolved solids concentration rises too high, ensuring continued system performance.

Designed to be Energy-efficient
High-efficiency, extra low-energy membranes use little energy to generate pure water. Pull-up membrane cartridges save space and make membrane replacement easy.

RO 400 SERIES WATER TREATMENT SYSTEM

Designed for DriSteem equipment and stand-alone operation, the RO 400 Series reverse osmosis water treatment system significantly reduces or eliminates maintenance on downstream equipment by removing over 98% of dissolved solids from supply water.

Maintenance is easy with innovative front-only maintenance access to the system. Quickly replace membranes and sediment filters without wrestling within tight spaces or working around other equipment.

Complete systems with dechlorinator, duplex water softeners, and brine tank ensure the longest membrane life possible for the system.

The industry-leading Vapor-logic® controller offers BAS network communications capability and delivers comprehensive system management. Alarms quickly inform the users of issues or changes for easy monitoring and corrective action. The Vapor-logic controller makes these RO systems the first interoperable systems available with BACnet® , Modbus®, and LonTalk®.

Pre-treatment Systems and Chemical Feed System also available. Contact a rep for more details.

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THE IMPORTANCE OF INDOOR AIR QUALITY

The relationship between poor indoor air quality (IAQ) and both short- and long-term adverse health effects has long been established. Despite the importance of breathing clean indoor air, many of us are often unknowingly exposed to poor IAQ regularly, underscoring the importance of taking proactive steps to improve IAQ and minimize our exposure to indoor air pollutants. A first line of defense of any comprehensive strategy to address IAQ includes air filters in a building's HVAC system.

IAQ experts recommend using at least MERV-13-rated filters for better filtration of particulate matter (PM). But higher-rated filters present several challenges. First, they are often much more expensive, and the costs of replacing and maintaining them can add up quickly, as filters must be regularly replaced (up to four times a year). Additionally, all filters — regardless of their efficiency rating — often struggle to capture microscopic and submicroscopic particles, including many common viruses and bacteria.

One way to improve filter performance and reduce airborne PM is by adding a complementary air-cleaning technology as part of a multilayered approach. Ionization provides a cost-effective solution that doesn't compromise filter performance or IAQ; in fact, it is shown to improve both.

IMPROVE YOUR INDOOR AIR QUALITY WITH NEEDLEPOINT BIPOLAR IONISATION TECHNOLOGY

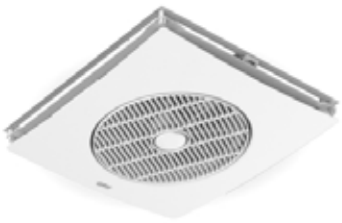
GPS® patented NPBI technology works to improve IAQ by targeting airborne particles including certain odors, viruses and bacteria. NPBI technology introduces ions into a space via the existing HVAC system. When these ions disperse throughout a space, they seek out and form bonds with particles in the air through a process called agglomeration. This creates a snowball effect in which particles begin to cluster together. The larger a cluster of particles becomes, the easier it is for an HVAC system to filter it out of the air. In addition to this clustering effect, contact with ions also inactivates certain viruses and bacteria.

IDF-2™ CEILING MOUNTED ION DISTRIBUTION FAN

Efficiently Reduce Germs and Odours

Ideal for spaces such as conference rooms, classrooms, healthcare waiting rooms and open plan offices. The IDF-2 is a low-profile, quiet operation ceiling tile fan with NPBI™ technology directly integrated.

- Designed to be fit commercial drop/suspended ceilings using a standard 24" x 24" tile footprint
- High efficiency brushless fan motor
- Revolving diffuser ensures an even introduction of ions for optimal in-space concentration levels
- Easy to install
- Ideally suited to spaces such as conference rooms, classrooms, and open-plan offices



PF-E™

Filter Enhancement System

The GPS Air PF-e is an indoor duct mounting filter enhancement system. The Opti-Lok™ technology improves an air filters ability to capture sub-micron particles, making it more efficient. It's low profile design allows for mounting on typical outdoor air and return ducts.

H2: Superior Performance with GPS Air Opti-Lok Filters

The PF-e can enhance your current filters or be paired with GPS Air Opti-Lok filters to achieve optimal very fine particle* reduction, with the removal performance of our proprietary MERV 11 filter being equivalent to a standard MERV 13 filter.

PF-I™

Filter Enhancement System

Body: The GPS Air PF-i is a self-cleaning filter enhancement system. The Opti-Lok™ technology improves an air filters ability to capture sub-micron particles, making it more efficient. The unit is designed for mounting inside ducts and air handling units upstream of system filtration.

Superior Performance with GPS Air Opti-Lok Filters

The PF-i can enhance your current filters or be paired with GPS Air Opti-Lok filters to achieve optimal very fine particle* reduction, with the removal performance of our proprietary MERV 11 filter being equivalent to a standard MERV 13 filter.

OPTI-LOK™ FILTERS FOR PF-E™ AND PF-I™

Dedicated filters for enhanced removal efficiency

The OL11 and OL14 series filters from GPS Air are specifically optimised to work with Opti-Lok products such as the PF-e® and PF-i®. These fully synthetic non-shedding microfiber mini-pleat panel filters provide up to 5 times the amount of media of most pleated filters of the same size. This high loading capacity means a longer service life and fewer filter changes.

Combined Opti-Lok™ System Performance

When combined with either a PF-e or a PF-i, it is more efficient at removing contaminants of concern in urban areas. For E1 bin particles such as wildfire smoke amongst others, filter removal performance is equivalent to that of a standard MERV 13 or MERV 16 filter.

Standard Features

- Opti-Lok technology approved
- Waterproof and Impact Resistant media construction
- Inherent antimicrobial properties
- Non-shedding microfiber media
- Heavy duty moisture resistant beverage board frame
- Upstream and downstream crosshatch for extra strength
- 100% polypropylene spacer beads for media rigidity.

SMARTIAQ™ - ASHRAE 62.1 STANDARDS BASED ON-DEMAND AIR CLEANING WITH REAL ROI. THE FIRST INTELLIGENT CLEAN AIR SYSTEM.

smartIAQ™ delivers on-demand air cleaning with integrated sensors, recognising air quality patterns based on ASHRAE standards.

Standard Features

- Simple IAQP Compliance: smartIAQ makes it easy to meet ASHRAE 62.1 standards for indoor air quality.
- Intelligent Monitoring: The system monitors for various air quality factors including TVOCs, CO2, Formaldehyde, NOx, and particulate matter.
- On-Demand Air Cleaning: smartIAQ provides quiet and efficient air cleaning only when needed, saving energy.
- Long-Life Filtration: The system uses high-quality filters that last for over a year, reducing maintenance needs.
- Quiet Operation: With a quiet EC blower, smartIAQ operates at whisper-quiet sound levels (NC-25 to NC-35).
- Advanced Technology: Integrated NPBI technology helps reduce small particles, viruses, bacteria, and other pollutants.
- Versatile Installation: smartIAQ can be installed as a standalone unit or integrated with an existing HVAC system.
- Cost Savings: The system helps reduce energy costs and equipment expenses by optimizing ventilation rates.
- IAQP Calculator: A dedicated calculator helps demonstrate compliance and potential cost savings.

DM-2™

The DM-2 is the auto-cleaning NPBI™ system designed for indoor duct mounting. Its low-profi le design allows for mounting in proximity to the occupied space, especially when combined with the DM-S™ round-duct mounting accessory.

CI-2™

The CI-2 is an auto-cleaning NPBI system designed to fi t where traditional air ionizers don't, including fan coils, PTACs, ductless mini splits, ceiling cassettes and ducted modules, as well as traditional split systems and air handlers up to 2,400 CFM.

GPS-FC24™-AC

The GPS-FC24-AC is an auto-cleaning, lightweight NPBI system that handles up to 2,400 CFM or 6 tons. Designed for multiple mounting options, including fan inlets, interior duct walls or floors.

GPS-FC48™-AC

The GPS-FC48-AC is an auto-cleaning, lightweight NPBI system that handles up to 4,800 CFM or 12 tons. Designed for multiple mounting options, including fan inlets, interior duct walls or floors.

GPS-DM48™-AC

The GPS-DM48-AC is an auto-cleaning, lightweight NPBI™ system that handles up to 4,800 CFM o r 12 tons. Design optimized for mounting into interior duct walls or floors.

Installations & Applications

IDF-2

The IDF-2 is a low-profile, quiet operation ceiling tile fan with NPBI™ technology directly integrated. The unit is designed to be fitted into commercial drop/suspended ceilings using a standard 24" x 24" tile footprint and utilizes a high efficiency brushless fan motor. The revolving diffuser ensures an even introduction of ions for optimal in-space concentration levels. The IDF-2 is easy to install and ideally suited to spaces such as conference rooms, classrooms and open plan offices.

Specifications

NPBI™
120–240 VAC Voltage Input
Auto-Cleaning Ionizer
Carbon Fiber Brush Emitters
DC Brushless Fan Motor
360 Degree Rotating Diffuser
User Remote Control
UL 867 Compliant
UL 2998 Compliant

Mount to drop/suspended ceilings and run independent of HVAC for optimal in-space ionization

IDF-2 IOM

GPS-IRIB®-18/36

The GPS-iRIB is available in 18- and 36-inch lengths. This mechanism is engineered to deliver the highest level of ionization with the least amount of energy in the most compact size.

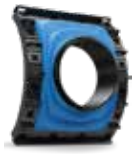
GPS-IMOD®

The GPS-iMOD is a modular NPBI system that is fi eld-assembled to any length up to 240 inches in 6-inch increments. Designed for mounting in air handling units, the iMOD is ideal for preventing buildup on evaporator coils.

GPS-FC-3-BAS

The GPS-FC-3-BAS unit is designed to be mounted inside of fan coils, heat pumps, PTACs, ductless mini splits and air handlers up to 3,200 CFM or 8 tons. Its compact size and simple mounting requirement allow it to be mounted almost anywhere in just a few minutes.

ACCESSORIES



DM-S™

The DM-S is a single, adaptable saddle solution for installing the DM-2™ onto varying round-duct diameters of 6 inches and up. The DM-S saddle installation accessory is sold separately from NPBI™ systems.

PS-2™

The PS-2 is a single-power transformation solution for compatible GPS ionizer products.

GPS-IMEASURE

The GPS-iMEASURE is the fi rst commercially available ion detector that can be permanently mounted in the space to measure ion levels in real time and report back to a building management system.

GPS-IMEASURE-D

The GPS-iMEASURE-D ion detector is permanently mounted in the duct downstream of any GPS® ionization device. It measures ion levels in real time and reports back to a BAS. It includes three sensitivity levels — 20,000, 200,000 or 2,000,000 ions/cc — that can be set based on the application and in-duct location.

GPS-IDETECT-P

The GPS-iDETECT-P is a plenum-mounted ionization detector that confi rms the output from the GPS-iMOD® system. The GPS-iDETECT-P provides the ability to monitor ionization status in a plenum to confi rm that the ionization equipment is working properly.

GPS-NEMA4-OE

The GPS-NEMA4-OE is a NEMA 4X-rated fi berglass enclosure designed to house one GPS-iMOD power supply. The panel adds a superior fi nished look to any project while providing the required protection against foreign substances, such as water and dust, when power supplies are mounted in a non-NEMA 1–rated environment.

SMART SENSOR VIASENS

SAUTER
Creating Sustainable Environments.

Real-time room climate monitoring, communication and status signaling in a single device: SAUTER presents the Smart Sensor viaSens for resource-saving and future-proof room automation.

Smart multi-sensors in a mesh network for recording movement/presence, brightness, temperature, humidity, air quality and sound pressure levels in rooms or room zones for energy-optimising room automation and for good, pleasant room air.

Features

- Measurement of indoor air quality (IAQ1)), such as temperature, humidity and air quality (VOC2))
- Measurement of indoor environment quality (IEQ3)), such as motion/presence, brightness and sound pressure level
- Sensor values can be linked together for more precise information on the state of the room (sensor fusion)
- For ceiling mounting (recessed/surface-mounted)
- Minimal sensor wiring thanks to Bluetooth® 4) mesh network
- Controllable coloured LED ring for displaying the room status to room users
- Simple integration into the SAUTER automation system with viaSens196
- Parameterisable animation profiles for LED ring, e.g. room reserved/available, room air quality good/bad, room ready for cleaning, etc.)
- Bluetooth Beacon function for locating the room user with a smartphone and optimised use of SAUTER Mobile Building Services (Mobile Room Control app)
- For up to 16 sensors for an ecos504/505 room controller
- Complete commissioning with CASE Suite and Bluetooth smartphone app
- Meshing of up to 15 viaSens116 sensors via Bluetooth mesh technology to the viaSens196 sensor gateway
- IoT ready thanks to encrypted MQTT communication in the viaSens196 as an MQTT client

ROOM TRANSDUCER, AIR QUALITY, SURFACE-MOUNTED - EGQ 120

Allows demand-controlled regulation of ventilation systems and reduces energy consumption

Features

- Measures the relative VOC mixed gas concentration (organic components in the room air), such as tobacco smoke, kitchen vapours
- Demand-based ventilation control in buildings such as restaurants and offices
- Active VOC semi-conductor sensor for measuring mixed gas concentration
- Suitable for direct wall mounting and recessed junction boxes

Part Number	Description
EGQ120F031	IAQ room transducer; wallmounting;0-10V
EGQ120F032	IAQ room transducer; wallmounting;0-10V

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ROOM TRANSDUCER, CO2, SURFACE-MOUNTED - EGQ 220, 222

Measuring CO2 concentration for energy-efficient room climate control. Simultaneous measurement of room temperature possible (depending on type)

Features

- Measurement of CO2 concentration for demand-controlled ventilation of rooms such as meeting and conference rooms, offices and classrooms
- Very fast response to changes in the CO2 concentration in rooms
- Available with and without temperature sensor
- CO2 measurement with NDIR Dual-beam technology, therefore stable in the long term and largely resistant to external influences
- Developed according to EN 13779, EN 15251, VDI 6038 and VDI 6040 directives

Part Number	Description
EGQ220F031	CO2 room transducer; wallmounting;0-10V
EGQ220F032	CO2 room transducer; wallmounting;0-10V
EGQ222F031	CO2+temp. room transducer;wall mounting;2x0-10V
EGQ222F032	CO2+temp. room transducer;wall mounting;2x0-10V

ROOM TRANSDUCER, CO2, RECESSED - EGQ 281

Measuring the CO2 concentration for energy-efficient control of the room climate

Features

- CO2 sensor for continuous measurement of the CO2 concentration for the demand-controlled ventilation of rooms (e.g. meeting rooms, conference rooms, offices, classrooms, etc.)
- CO2 measurement with NDIR dual-beam technology, therefore stable in the long term and resistant to external influences
- Any ageing or contaminating effects are continuously compensated in real time
- Very fast response to changes in the CO2 concentration in rooms
- Temperature-compensated calibration for the standard air pressure of 1013 mbar
- Calibrated ex works and ready to use immediately
- Low energy requirement of the ventilation system during the warming up time of the sensor
- Frame included

Part Number	Description
EGQ281F031	Room transducer, CO2; 0...10 V, recessed

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CO2+TEMP. DUCT TRANSDUCER - EGQ 212

Measuring the CO2 concentration and duct temperature for energy-efficient, demand-controlled ventilation and room climate regulation

Features

- Duct sensor for measuring carbon dioxide (CO2) content for demand-based ventilation of indoor spaces
- CO2 measurement with NDIR1) Dual-beam technology, therefore stable in the long term and largely resistant to external influences
- Automatic drift compensation
- Measurement of temperature in ventilation ducts
- Two analogue 0...10 V outputs are available: one for CO2 measurement and one for temperature measurement. This allows direct connection to an automation station
- Mounting accessories and flange included

Part Number	Description
EGQ212F032	CO2+temp. duct transducer;2x0-10V

IAQ DUCT TRANSDUCER - EGQ 110

Detection of volatile organic compounds (VOC) and duct temperature for energy-efficient, demand-controlled ventilation and room climate regulation

Features

- Duct air quality sensor for detection of volatile organic compounds (VOC) for demand-controlled ventilation of indoor spaces. VOC sources include flue gases, solvents as well as various cleaning agents and building materials
- Measurement of temperature in ventilation ducts
- Two analogue 0...10 V outputs are available: one for VOC measurement and one for temperature measurement. This allows direct connection to an automation station
- Automatic calibration via an integrated algorithm
- Mounting accessories and flange included

Part Number	Description
EGQ110F032	Duct transducer; VOC and temperature; 2 × 0...10 V

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REGIN

SINGLE TUBE SMOKE DETECTOR FOR DUCT MOUNTING - SDD-OE65

Optical detector with service alarm (max 20 sensors, to be connected to CABV control unit) including 600 mm Venturi tube.

The SDD-range of smoke detectors are duct mounted and for use in ventilation systems. They are constructed to meet the high demands of modern fire installations.

The detector comes in two types, with or without relay. SDD-OE65 are intended for use together with Regin's ABV... series of control units.

Features

- Optical
- Multiple detectors can be connected to a single control unit (does not apply to SDD-OE65-RAC)
- Service alarm signal available, with ABV unit
- The detector is bayonet mounted to simplify service and maintenance
- Compact design
- RFI-protected (radio interferences)

Part Number	Detection area
SDD-OE65	Optical detector for loop mounting with control unit
SDD-OE65-RAC	Optical detector with relay output

SMOKE DETECTOR FOR CEILING MOUNTING - S65-OE

Smoke detector for all kinds of areas. Constructed to meet the high demands of a modern fire installation.

Features

- Optical
- Multiple detectors can be connected to a single control unit
- Compact design
- Service alarm available
- The detector is bayonet mounted to simplify service and maintenance
- RFI-protected (radio interferences)

Part Number	Detection area	Detection
S65-OE	Optical detector with service alarm	Optical. Photoelectric, reflecting type

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CO_2, CO, VOC TRANSMITTERS

This series with automatic calibration sets new standards in CO_2 measurement for HVAC applications. It combines the measurement of the carbon dioxide level, temperature and relative humidity. Models with or without display are available.

Part Number	Description	Output signal	Accuracy, temperature
TCO2A	CO_2+ °C	0...10 V + 0...10 V	± 0.4 °C
TCO2A-D	CO_2+ °C	0...10 V + 0...10 V	± 0.4 °C
TCO2A-M	CO_2+ °C	Modbus	± 0.4 °C
TCO2A-D-M	CO_2+ °C	Modbus	± 0.4 °C
TCO2AU	CO_2+ °C + RH	0...10 V + 0...10 V + 0...10 V	± 0.4 °C
TCO2AU-D	CO_2+ °C + RH	0...10 V + 0...10 V + 0...10 V	± 0.4 °C
TCO2AU-M	CO_2+ RH + °C	Modbus	± 0.4°C

Full range of configurations available on request

Technical Features	Description
Supply voltage	24 V AC ±10 %, 50...60 Hz / 15...35 V DC
Working range, CO_2	0...2000 ppm
Working range, temperature	0...50 °C
Working range, humidity	10...90 % RH (non-condensing)
Relay output	Max. 1 A at 50 V AC, min. 1 mA at 5 V DC
Protection class	IP30

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CO_2 TRANSMITTER, AIR DUCT MOUNTING

Measures the concentration of carbon dioxide in ducts. Exempt from periodic calibration.
Some models are equipped with a passive temperature sensor.

Part Number	Description	Output signal	Accuracy, temperature
TCO2C	CO_2	0...10 V	-
TCO2C-05	CO_2	0...5 V	-
TCO2C-PT100	CO_2+ PT100, 100 Ohm (0°C)	0...10 V + Ohm	± 0.3 °C
TCO2C-NTC10-01	CO_2+ NTC 10, 10 kOhm (25°C)	0...10 V + Ohm	± 0.2 °C

Full range of configurations available on request

Technical Features	Description
Supply voltage	15...35 V DC / 24 V AC ± 10% 50-60 Hz
CO_2 sensor	NDIR (Non-Dispersive Infrared Technology)
Output	0...10 V DC or 0...5 V DC, RL>10 kOhm
Working range, CO_2	0...2000 ppm
Working range, temperature	0...+50 °C
Working range, humidity	10...90 % RH (non-condensing)
Max. air velocity	10 m/s
Insertion length	60...230 mm
Dimensions	75 x 77 x 36 mm (housing)
Protection class	IP65 case (sensor excluded)

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CARBON MONOXIDE TRANSMITTER

This device measures the carbon monoxide concentration using an electrochemical method of measurement characterised by high selectivity even in low concentrations. It is installed for both safety and energy-saving reasons. The output signals are linear representations of the gas concentration.

The transmitter is TÜV-approved in accordance with VDI 2053.

Part Number	Description
TCO1	CO transmitter

Technical Features	Description
Supply voltage	12...28 V DC
Measuring range	0...300 ppm
Outputs	4...20 mA, two-wire / 0...10 V DC, three-wire
Calibration	Automatic zero adjustment
Dimensions	80 x 82 x 86 mm
Protection class	IP56

ROOM AIR QUALITY TRANSMITTERS, VOC

Analysis of the air quality based on a mixed gas VOC (Volatile Organic Compounds) sensor.

Detectable gases:

- carbon monoxide CO
- hydrogen sulfi de H2S
- solvent vapours
- cigarette smoke
- car exhaust
- air produced by human breathing
- combustion smoke from wood, paper and plastics.

Part Number	Description	Application
DB-RLQ	0...10 V DC, 0...20 mA, 4...20 mA	Room
DB-RLQ5	0...5 V DC, 0...20 mA, 4...20 mA	Room

Technical Features	Description
Supply voltage	15...36 V DC or 24 V AC/DC ± 10%, 50-60 Hz
Outputs	0...10 V DC, 0...20 mA or 4...20 mA, selectable by jumpers
Sensor	VOC
Ambient temperature	0...50 °C
Ambient humidity	10...90 % RH (non-condensing)
Storage temperature	-20...+50 °C
Storage humidity	< 95 % RH
Casing	Plastic material similar to RAL 9010
Weight	80 g
Dimensions	75 x 75 x 25 mm
Protection class	IP30 (case)
Isolation class	III
Certification	EN 60335-1: safety / EN 60529: IP degree of protection / EN 60730: domestic controls

AIR QUALITY & GAS

A comprehensive selection of air quality & gas measuring products that are designed and manufactured for long-term stability and performance. Each product provides a repeatable and accurate output signal for efficient air quality & gas monitoring and control.

GREYSTONE ENERGY SYSTEMS INC

CARBON DIOXIDE

CE, CD, CDD4 Series

FEATURES
- Menu driven set-up
- 0-2,000 scalable to 20,000 PPM CO2
- NDIR, dual channel
- Optional temperature sensor outputs
- Guaranteed 5 year calibration interval
- Easily field calibrated

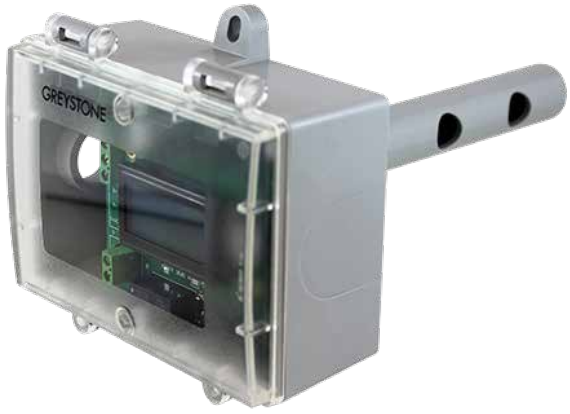
PRODUCT TYPES
- Room
- Duct
- Outside

CARBON DIOXIDE, TEMPERATURE AND HUMIDITY

CDD3, CDD5, CHT Series

FEATURES
- Outputs CO2, Temperature, & RH Levels
- Menu driven set-up
- 0-2,000 scalable to 10,000 PPM CO2
- NDIR, dual channel
- Guaranteed 5 year calibration level
  Easily field calibrated
  Analog, BACnet® or Modbus output

PRODUCT TYPES
- Room
- Duct



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PARTICULATE MATTER

PM Series

FEATURES
- Selectable PM1, 2.5, 4 & 10 Particle Sizes
- 0 - 1000 ug/m3 range
- LCD displaying PM level
- Tri-color LED to indicate IAQ level
- Analog, BACnet® or Modbus output
- Field replaceable sensor

PRODUCT TYPES
- Room
- Duct
- Outside

CARBON MONOXIDE/ NITROGEN DIOXIDE

GDT, CMD, NDD Series

FEATURES
- electable ranges up to 500 ppm CO or 10 ppm NO2
- Single or dual gas monitoring
- Combination or remote sensor
- Replaceable electrochemical sensing pods
- Analog, BACnet® or Modbus output
- Optional alarm relays with field adjustable trip point
- Optional audible and visual alarm indication
- Optional temperature output
- Easy to calibrate in the field

PRODUCT TYPES
- Surface
- Duct

	Part Number	Description
Product	**CMD5B1**	Wall/Surface Mount Carbon Monoxide Detector
Relay Option	**000** **100**	No Relay With Relay (Not available with Modbus communications)
Options	- **010** **MOD**	Leave blank for 4-20 mA 0-10 Vdc output Modbus communications

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DUCT SMOKE DETECTOR

DSD Series

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FEATURES

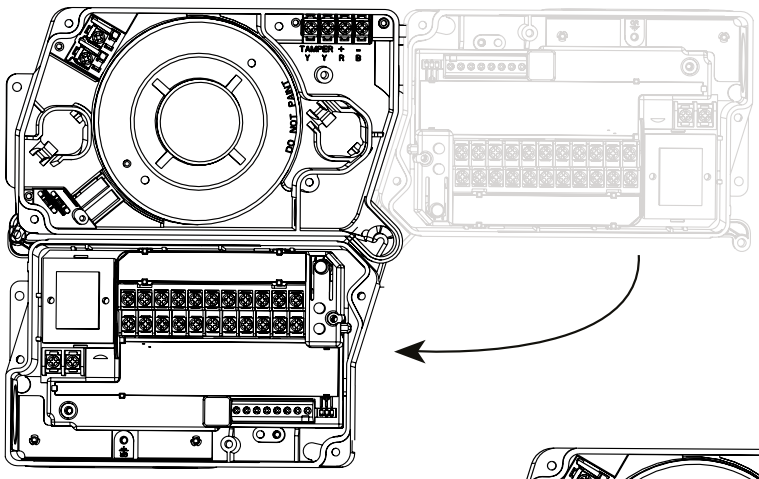
- Simple change-out of photoelectric detector heads
- Low flow air velocity rating from 100 to 4000 FPM
- UL, CSFM, and MEA listed
- Two sets of 10A form "C" alarm contacts
- One set of 10A form "C" trouble contacts
- Clear cover for convenient visual inspection
- Built-in reset switch/alarm test switch

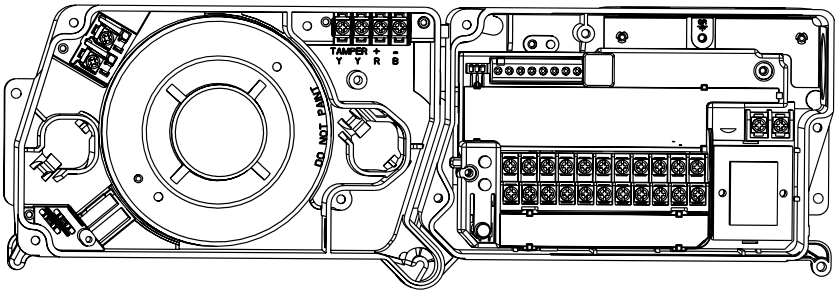
PRODUCT TYPES

- Duct

	Part Number	Description
Product	**DSD**	Duct Smoke Detector, Photoelectric
Power Supply	**120** **240**	120 Vac, 24 Vac/Vdc 240 Vac, 24 Vac/Vdc

	Part Number	Description
Product	**DST-**	Metal Duct Sampling Tube for DSD Series
Power Supply	**1.0** **1.5** **3.0** **5.0** **10.0**	Duct widths up to 305mm (12") Duct widths between 305mm - 610mm (12" - 24") Duct widths between 610mm - 1200mm (24" - 48") Duct widths between 1200mm - 2400mm (48" - 96") Duct widths between 2400mm - 3700mm (96" - 144")





GREYSTONE ENERGY SYSTEMS INC

Total Indoor Air Quality Sensor

IAQ SERIES – PARTICULATE MATTER

With the worldwide need for accurate monitoring of indoor air quality, Greystone's new IAQ is a Total Indoor Air Quality Monitor. The IAQ will monitor up to 6 parameters that include Particulate Matter (PM1.0, PM2.5, PM4.0 & PM10), Volatile Organic Compounds, Carbon Dioxide, Formaldehyde, Humidity & Temperature and provide either a BACnet® or Modbus signal for connection to a building automation system.

FEATURES

- Measurements for Particulate Matter (PM1.0, PM2.5, PM4.0 & PM10), Total Volatile Organic Compounds, Carbon Dioxide, Relative Humidity & Temperature with optional Formaldehyde
- Field replaceable sensors
- Full colour LCD with capacitive touch screen and backlight control
- Configurable LCD for parameter values
- LCD touch screen lockout feature
- Viewable or concealed LCD cover options
- Red/Green/Yellow LED for air quality
- Wide voltage range 12Vac/dc to 28Vac/dc
- Integrated power switch for quick sensor change
- Enclosure designed for quick installation
- Backplate mounted terminals for easy installation
- Removable cover for troubleshooting with unit powered
- Temperature display with selectable °C/°F units
- CO2 Auto-calibration enabled/disabled modes
- CO2 field calibration compatible
- Alarm relay can be assigned to any of the parameters
- Programmable alarm relay setpoint, hysteresis and time delay with visual indication on LCD
- Facilitates compliance with ASHRAE 62.1 standard for air quality
- Contributes toward satisfying Feature A08 and T06 under the WELL Building Standard®.

The IAQ features field replaceable sensor modules, a full-colour capacitive touch screen LCD that's user configurable, and a configurable alarm relay output. All this housed in a new modern, quick mount enclosure.

The IAQ facilitates compliance with ASHRAE 62.1 standard for air quality and contributes toward satisfying the RESETTM Air Standard and Features A08 and T06 under the WELL Building Standard®.

Typical Installation: The IAQ series can be mounted directly to a single gang electrical box or directly to a wall. The backplate includes many mounting hole configurations to allow for mounting on a variety of electrical boxes. The IAQ has a screw block terminal provided for connection to the Building Automation System.

Part Number	Description
IAQRM5XC	Indoor air quality, CO2, humidity, temperature, particulate matter and TVOC. Selectable BACnet and Modbus. Concealed display
IAQRM5XV	Indoor air quality, CO2, humidity, temperature, particulate matter and TVOC. Selectable BACnet and Modbus. Viewable display
IAQRM6XC	Indoor air quality, CO2, humidity, temp, particulate matter, HCHO and TVOC. Selectable BACnet and Modbus. Concealed display
IAQRM6XV	Indoor air quality, CO2, humidity, temp, particulate matter, HCHO and TVOC. Selectable BACnet and Modbus. Viewable display

RESIDENTIAL GAS LEAK DETECTORS

Seitron has been designing and manufacturing gas detectors for civil or domestic use for more than twenty years. From the beginning the choice was limited to 3 gases (2 explosive gases, methane and LPG, and 1 toxic gas, carbon monoxide - CO) and to produce gas leak detectors that deliver the maximum guarantees to those who use them for their own safety:

- Only detectors with acoustic alarm
- Relay output to activate normally closed (N.C.) and normally open (N.O.) electrovalve
- Only detectors powered with 230V mains voltage

BEAGLE & SEGUGIO COMPARISON CHART

Features	Beagle	Segugio
Zone Number	1	2
Natural Gas	RGDME5MP1R, RGDME5MP1T	RGDMETMP1R
LPG	RGDGP5MP1R, RGDGP5MP1T	RGDGPLMP1R
CO	RGDCK5MP1S, RDCBA1	RGDCOKMP1
Kit With 3/4" Gas Electrovalve (NO/NC)	✔	✔
Power Supply	230 V~	230 V~
Acoustic Alarm	✔	✔
Output for 230V~ Gas Ev	✔	✔
Output for 12V= Gas Ev	-	✔
Sensor Life	5 Years	5 Years
Precalibrated replaceable sensor	✔	✔
Instrument Warranty	3 Years	3 Years
Alarm Test Button	✔	✔
Yellow LED for Fault Alarm	✔	✔
Red LED for Gas Alarm	✔	✔
Green LED for Working Unit	✔	✔
Dimensions	L85 x A107 x P38 mm	L148 x A84 x P40 mm

BEAGLE GAS LEAKAGE DETECTOR - METHANE

Domestic methane gas detector with output for driving 230V~ cut-off valves.

Test button. In compliance with CEI-EN 50194-1 standard. IMQ quality mark and compliance with CEI-EN 50194-1certify the absolute reliability and efficiency of the device. Precalibrated sensor, directly replaceable by user. Pre-calibrated sensor (ACMM01), replaceable directly by the user.

Part Number	Description
RGDME5MP1R	SnO2 Semiconductor Precalibrated sensor, directly replaceable by user
RGDME5MP1T	with 2m cable and plug

Technical Features	Description
Power supply	230V~ -15/+10% 50Hz
Sensor life	5 years
IP rating	IP42
Dimensions	H107 W85 D38mm

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BEAGLE GAS LEAKAGE DETECTOR - LPG

Microprocessor based domestic carbon monoxide detector with output for cut-off valves, fans or any other electrical actuators with 230V power supply. Carbon monoxide detection with accumulation mode: it simulates the gas accumulation in the human body according to standard EN 50291-1. Pre-calibrated sensor (ACMC01), replaceable directly by the user.

Part Number	Description
RGDGP5MP1R	SnO2 Semiconductor Precalibrated sensor, directly replaceable by user
RGDGP5MP1T	with 2m cable and plug

Technical Features	Description
Power supply	230V~ -15/+10% 50Hz
Alarm threshold	10% L.E.L.
IP rating	IP42
Dimensions	H107 W85 D38mm

BEAGLE GAS LEAKAGE DETECTOR - CO

Microprocessor based domestic carbon monoxide detector with output for cut-off valves, fans or any other electrical actuators with 230V power supply. Carbon monoxide detection with accumulation mode: it simulates the gas accumulation in the human body according to standard EN 50291-1. Pre-calibrated sensor (ACMC01), replaceable directly by the user.

Part Number	Description
RGDCK5MP1S	Precalibrated chemical cell on module, directly replaceable by user
RDCBA1	with 2m cable and plug

Technical Features	Description
Power supply	230V~ -±10% 50Hz
Alarm threshold	~30ppm CO lasting for >120 minutes
Button	Test/Alarm reset
Alarm Buzzer	Buzzer 85dB(A)@ 1m
IP rating	IP42
Dimensions	H107 W85 D38mm

BEAGLE GAS LEAKAGE DETECTOR - METHANE AND CO

Domestic methane (CH4) gas and carbon monoxide (CO) detector with facility for driving 230V~ cut-off valves or fans. Test button. Not compliant with EN 50291.

Part Number	Description
RGDCM0MP1	SnO2 Semiconductor

Technical Features	Description
Power supply	230V~ -15/+10% 50Hz
Alarm threshold	10% L.E.L. CH4 80ppm CO
Sensor life	5 years
IP rating	IP42
Dimensions	H107 W85 D38mm

SEGUGIO GAS LEAKAGE DETECTOR - METHANE

Microprocessor based domestic methane gas detector with output for both 230V~ and 12V~/= cut-off valves. Test function. Precalibrated sensor, directly replaceable by user.IMQ quality mark and compliance with CEI-EN 50194-1 certify the absolute reliability and efficiency of the device.

Part Number	Description
RGDMETMP1R	SnO2 Semiconductor Precalibrated sensor, directly replaceable by user

Technical Features	Description
Power supply	230V~ ±10% 50Hz
Sensor life	5 years
Alarm buzzer	85dB (A) @ 1m
IP rating	IP42
Dimensions	H107 W85 D38mm

SEGUGIO GAS LEAKAGE DETECTOR - CO

Microprocessor based domestic carbon monoxide detector with output for cut-off valves, fans or any other electrical actuators with 230V~ power supply. Carbon monoxide detection with threshold mode. Not compliant with EN 50291.

Part Number	Description
RGDCOHMP11	Electrochemical cell type internal sensor

Technical Features	Description
Power supply	230V~ -15/+10% 50Hz
Alarm	Buzzer 85dB(A) @ 1m
Pre alarm threshold	16ppm
Alarm threshold	80ppm
IP rating	IP42
Dimensions	H84 W148 D40mm

SEGUGIO GAS LEAKAGE DETECTOR - LPG

Microprocessor based domestic LPG gas detector with output for both 230V~ and 12V~/= cut-off valves. Test function. Precalibrated sensor, directly replaceable by user. IMQ quality mark and compliance with CEI-EN 50194-1 certify the absolute reliability and efficiency of the device. Pre-calibrated sensor (ACMG01), replaceable directly by the user.

Part Number	Description
RGDGPLMP1R	SnO2 semiconductor Precalibrated sensor, directly replaceable by user

Technical Features	Description
Power supply	230V~ ±10% 50Hz
Sensor life	5 years
Alarm Buzzer	85dB (A) @ 1m
IP rating	IP42
Dimensions	H84 W148 D40mm

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SEGUGIO GAS LEAKAGE DETECTOR - CO

Microprocessor based domestic carbon monoxide detector with output for cut-off valves, fans or any other electrical actuators with 230V~ power supply. Carbon monoxide detection with accumulation mode: it simulates the gas accumulation in the human body according to standard EN50291.

Part Number	Description
RGDCOKMP1	Electrochemical cell

Technical Features	Description
Power supply	230V~ -15/+10% 50Hz
Button	Alarm Test-Reset
Alarm	Buzzer 85dB(A) @ 1m
IP rating	IP42
Dimensions	H84 W148 D40mm

SEGUGIO GAS LEAKAGE DETECTOR - METHANE + CO

Microprocessor based domestic methane and carbon monoxide detector equipped with two separated output relays with output for driving 230V~ cut-off valves. Sensors assembled on precalibrated modules replaceable by user. Carbon monoxide detection with accumulation mode: it simulates the gas accumulation in the human body according to standard EN 50291-1. Pre-calibrated sensor (ACMC01 CO, ACCM01 METANO), replaceable directly by the user.

Part Number	Description
RDXSM1	**CH4 sensor type:** SnO2 semiconductor. Precalib. sensor, directly replaceable by user **CO sensor type:** Precalibrated sensor on module replaceable by user

Technical Features	Description
Power supply	230V~ ±10% 50Hz
CH4 sensor life	5 years
Alarm	Buzzer 85dB(A)@ 1m
IP rating	IP42
Dimensions	H84 W148 D40mm

METHANE OR LPG REMOTE SENSOR (ONLY FOR SEGUGIO)

Remote sensor for natural gas or LPG leaks. Semiconductor sensitive element. Sensor life: 5 years. IP30 container.

Part Number	Description
SGAMET	Methane
SGAGPL	LPG

Technical Features	Description
Power supply	6V = .. 12V = from the control unit
Sensor life	5 years
Detectable gas	Methane or LPG
Degree of protection	IP30
Dimensions	A90 L65 P30mm

Datasheets & install guides available at
www.ibc.ie

INDUSTRIAL GAS DETECTION

Seitron designs and manufactures detectors for methane gas, LPG, gas vapors and CO (Carbon Monoxide) for use in commercial premises and the process industry

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INTERFACES

4..20mA
Fault in current loop: 0.0 mA
ZERO: 4.0 mA
Full range: 20.0 mA

Maximum resistance applicable as load at current loop output (4..20 mA) when supply voltage is 12V= -15% is 350 ohm.

Relays	
Supply voltage:	12 Vdc
Maximum absorption:	80 mA @ 12 Vdc
Contact rating:	3 x 2 A 250 V~ (voltage free)

Modbus ®	
Interface:	RS485.
Parameters:	19200, 8, N, 1.
Communication protocol:	Modbus® RTU

CASE

Plastic Housing	
Filter:	Sinterised PE
Case:	ABS V0 - ABS HB

Plastic Housing	
Dimensions:	W5.3 H4.8 D2.5 in W134 H124 D67 mm
Protection rating:	IP54

ATEX metal for N.C. zones	
Filter:	Sinterised stainless steel
Case:	Die-cast Aluminum

ATEX metal for N.C. zones	
Dimensions:	W4 H5.3 D2.4 in W100 H134 D60 mm
Protection rating:	IP6X

ATEX metal for C.A. zones	
Filter:	Sinterised stainless steel
Case:	Die-cast Aluminum

ATEX metal for C.A. zones	
Dimensions:	W6.5 H4.6 D3.5 in W165 H117 D90 mm
Protection rating:	IP6X

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INDUSTRIAL RANGE TRANSMITTERS

Gas	Working Range	Output signal	Certificate	Cod
Methane	50% L.E.L.	4..20mA + Modbus	IMQ 15 ATEX 003 X	SXMX14M1Y
	100% L.E.L.	4..20mA + Modbus	IMQ 15 ATEX 003 X	SXMX16M1Y
LPG	50% L.E.L.	4..20mA + Modbus	IMQ 15 ATEX 003 X	SXGX14M1Y
	100% L.E.L.	4..20mA + Modbus	IMQ 15 ATEX 003 X	SXGX16M1Y
CO	0 .. 500 ppm	4..20mA + Modbus	IMQ 15 ATEX 003 X	SXCX11M1Y

Gas	Working Range	Output signal	Certificate	Cod
Methane	50% L.E.L.	4..20mA	IMQ 20 ATEX 006	SWMX1411
LPG	50% L.E.L.	4..20mA	IMQ 20 ATEX 006	SWGX1411
Hydrogen	20% L.E.L.	4..20mA	IMQ 20 ATEX 006	SWHX1211

COMMERCIAL RANGE TRANSMITTERS

Gas	Working Range	Output signal	Certificate	Cod
Methane	50% L.E.L.	4..20mA + Modbus	metallic	SYMN54B
LPG	50% L.E.L.	4..20mA + Modbus	metallic	SYGN54B
Hydrogen	0 .. 500 ppm	4..20mA + Modbus	metallic	SYCN51B

BASE RANGE TRANSMITTERS

Gas	Working Range	Output signal	Certificate	Cod
Methane	50% L.E.L.	4..20mA + Modbus	grey plastic	SYMN24B
		4..20mA + Modbus + Relè + Buzzer + LED	transparent plastic	SYMN04R
	100% L.E.L.	4..20mA + Modbus	grey plastic	SYMN26B
		4..20mA + Modbus + Relè + Buzzer + LED	transparent plastic	SYMN06R
LPG	50% L.E.L.	4..20mA + Modbus	grey plastic	SYGN24B
		4..20mA + Modbus + Relè + Buzzer + LED	transparent plastic	SY GN 04R
	100% L.E.L.	4..20mA + Modbus	grey plastic	SY GN 26B
		4..20mA + Modbus + Relè + Buzzer + LED	transparent plastic	SYGN06R
CO	0 .. 500 ppm	4..20mA + Modbus	grey plastic	SYCN21B
		4..20mA + Modbus + Relè + Buzzer + LED	transparent plastic	SYCN01R

All transmitters are compatible with the RYM02M0, RYM02M1, RYM02M2, RYK01M control units.
There is only one exception: SW-X transmitters do not work with the RYK01M control unit.

INDUSTRIAL CONTROL UNIT FOR 8 ZONES

Industrial control unit for gas detection with 8 zones fit in IP44 capable of monitoring gas concentration up to maximum 8 zones. Possibility of connecting a 4 .. 20 mA transmitter in each zone for the detection of LPG, methane, carbon monoxide (CO) or petrol vapours.

Part Number	Description
RXA01M	Industrial control unit for gas detection with 8 zones

Technical Features	Description
Power supply	230V~ 50/60 Hz or 12Vdc with backup battery
Absorption:	15W max.
Activation time:	60 s.
Input (4..20mA):	1 for toxic gases 5 for flammable gases
Contacts rating:	5x3(1)A 250V~ SPDT
Protection rating:	IP 30 (acc. EN 60529)
Humidity limit:	20% .. 80% RH (non condensing)
Dimensions:	245x100x60 mm (LxHxD)

4 IN 2 OUT + RESET CONTROL UNIT

Control unit for gas leakage sensors; input for up to 4 remote sensors (1). Reset and test pushbuttons. Memory of the alarm state. 2 relay outputs.

Part Number	Description
RGI000MSX4	Control unit for gas leakage sensors

Technical Features	Description
Power supply	230V~ -15/+10% 50Hz
Output (relay)	2x6(2)A @ 250V~ SPDT
dicators: active/fault/alarm	4 Green LEDs/blinking LED/4 red LEDs
Delay on e.v. relay	1 .. 90 sec.
Button 1	Test
Button 2	Reset
IP rating	IP54
Dimensions	H188 W230 D114mm

Notes: (1) The remote sensor used are: SGAMET, SGAGPL, SGIME1, SGIGP1, SGIME1M, SGIGP1M..
(2) The back-up battery to be used is ACCSGB12.

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2 IN 2 OUT + RESET CONTROL UNIT

Control unit for gas leakage sensors with two relay outputs, inputs for 2 remote sensors (1). Reset button. IP54 case. For Non-classified ATEX zones.

Part Number	Description
RGI001MSX2	Control unit for gas leakage sensors with two relay outputs

Technical Features	Description
Power supply	30V~ -15/+10% 50Hz
Output 1 (relay x e.v.)	4(2)A @ 250V~ SPDT
Output 2 (relay x alarm)	4(2)A @ 250V~ SPST
Indicators: active/alarm1/alarm2	Green/red/red LED
Delay on e.v. relay	~15 sec.
Push button	Reset
Dimensions	H79 W134 D62mm
IP rating	IP 54

Notes: (1) The remote sensor used are: SGAMET, SGAGPL, SGIME1, SGIGP1, SGIME1M, SGIGP1M.
(2) The back-up battery to be used is ACCSGB12.

REMOTE SENSOR

Remote sensor for methane or LPG gas leakages. Semiconductor sensing element. Alarm threshold: 10% L.E.L. . Sensor life: 5 years. IP 54 case. Powered by control unit.

Part Number	Description
SGIME1	Per gas metano
SGIGP1	Per gas GPL

REMOTE SENSOR

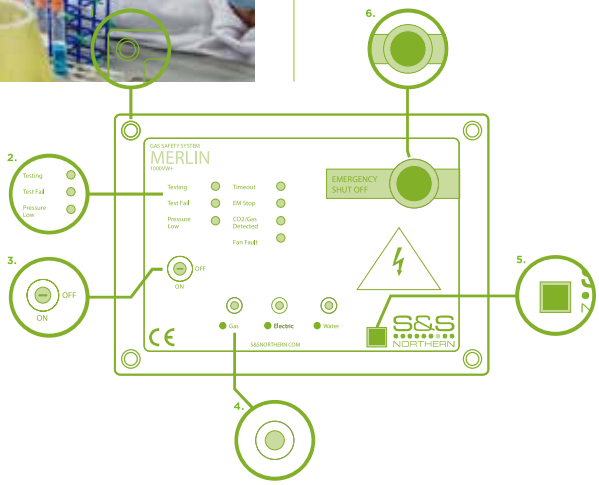
Remote sensor for methane or LPG gas leakages. Semiconductor sensing element. Alarm threshold: 10% L.E.L. . Sensor life: 5 years. IP 54 case. 230V~ power supply.

Part Number	Description
SGIME1M	Per gas metano
SGIGP1M	Per gas GPL

Speak with our team about any large projects

Order before 2pm for same day dispatch

Gas Proving – Education / Science Laboratories



S&S Northern have a range of gas proving systems for educational establishments. Our systems protect Laboratories, food tech and design tech classrooms. We also have products that protect laboratories that have speciality or high pressure gases.

Single, Dual or Triple utility gas pressure proving & isolation system designed specifically for use in School and University Laboratories. Most commonly used to control gas, electric & water.

Part Number	Description
1000V	Gas proving & optional ventilation Interlocking c/w pressure transmitter
1000V+	Gas proving, electrical isolation & optional Ventilation interlocking c/w pressure Transmitter
1000VW+	Gas proving, electrical isolation & optional Ventilation interlocking c/w pressure Transmitter

The pressure transmitter provides a pressure drop analysis on the gas line upon each activation of the gas proving system. This ensures all gas taps and appliances are closed before gas into the space. The pressure drop test also ensures all pipe work is intact and free from fault or damage. this simple 30 second test provides a unique safe start up environment for the user.

Part Number	Description
Pressure Transmitter	Gas pressure proving transmitter (supplied With all merlin gas proving systems)
EM STOP BUTTON	Remote em stop button yellow, shrouded c/w Reset key

Gas Proving – Commercial Kitchens

S&S Northern have a range of gas interlock and environmental monitors to meet all of the latest gas and ventilation regulations for commercial kitchens. We have industry leading range of products, from a simple gas interlock system to our advanced demand controlled kitchen ventilation systems and environmental monitors.

Ventilation interlock system specifically designed for use in commercial kitchens to meet BS6173

Part Number	Description
2000S	Gas Ventilation Iinterlock - Gas Proving - Air PD & Current Sensing C/W Pressure Transmitter
CT1250	Gas Ventilation Interlock With Two Built In Current Monitors
CT1200S	Gas Ventilation Interlock - Air PD Compatible
PM2+	2 Channel current sensor for merlin interlock panels

Part Number	Description
930-80	Air PD Switch 20-300 PA
DUCT KIT	To Suit 930-80

MERLIN 3000S SYSTEM

Saves energy by varying the ventilation speed via 0-10V DC output. This reduces manual ventilation control. The Merlin 3000S System is a demand-controlled ventilation system with a built-in gas interlock and optional gas proving. It is designed to automatically adjust the speed of the ventilation based on the kitchen environment. The ventilation is automatically controlled based on the carbon dioxide levels, smoke/steam present in the canopy, carbon monoxide, real-time gas usage, and temperature. This system can offer large financial savings and short payback periods for any commercial kitchen.

Here are some of the additional features of the Merlin 3000S System:

- It saves energy by varying the ventilation speed via 0-10V DC output.
- It reduces manual ventilation control.

MERLIN CT1750 SYSTEM

The Merlin CT1750 System is designed for use in commercial kitchens with solid fuel appliances and charcoal ovens/grills.

This panel acts an interlock between the ventilation and the gas solenoid valve and also carries out a gas proving test on start up to check for any gas leaks or faulty appliances. The system is compatible with both current monitors and air pressure differential switches in order to interlock with up to 4 fans.

MERLIN CT1650+ SYSTEM

The Merlin CT1650+ ventilation interlock system is specifically designed for use in commercial kitchens to meet BS6173. This panel is designed for use when kitchen appliances do have flame failure devices fitted, therefore gas proving is not a requirement.

The System acts as an interlock between the ventilation system and the gas solenoid valve. The systems uses unique built in current monitors displaying the exact fan current, in order to interlock with the ventilation with precision accuracy.

MERLIN CT1250X SYSTEM

The Merlin CT1250X ventilation interlock system is specifically designed for use in commercial kitchens to meet BS6173. This panel is designed for use when kitchen appliances do have flame failure devices fitted, therefore gas proving is not a requirement.

The System acts as an interlock between the ventilation system and the gas solenoid valve. The systems uses advanced built in current monitors displaying the exact fan current, in order to interlock with the ventilation with precision accuracy.

MERLIN CT1200S SYSTEM

The Merlin CT1200S ventilation interlock system is designed specifically for use in commercial kitchens to meet BS6173. This panel is to be used when the kitchen appliances do have flame failure devices, therefore Gas proving is not a requirement.

CT1200S acts as an interlock between the ventilation system and the gas solenoid valve. This system can work in conjunction with both external current monitors and air pressure differential switches in order to interlock with up to 2 fans.

MERLIN 2000X SYSTEM

The Merlin 2000X is the ultimate gas pressure proving & ventilation interlock system, specifically designed for use in commercial kitchens to meet BS6173. This panel is designed for use when the kitchen appliances do not have flame failure devices fitted, therefore gas proving is a requirement.

2000X uses two unique built in current monitors which displays the exact fan current, in order to interlock with the ventilation with precision accuracy. The system is compatible with both current monitors and air pressure differential switches to interlock with up to 4 fans.

MERLIN 2000X+ SYSTEM

Intelligent Current Monitors to set “high” and “low” parameters. Current Monitors parameters 0.2amp to 20amp. Adjustable sensitivity threshold to reduce nuisance dropouts. Fan start/stop output (12v output when on). Facility to interlock using external current switches or air pressure differential switches (4 Fans). Works with gas detectors and Carbon monoxide monitors. Electrical isolation.

MERLIN 2000XW+ SYSTEM

Intelligent Current Monitors to set “high” and “low” parameters. Current Monitors parameters 0.2amp to 20amp. Adjustable sensitivity threshold to reduce nuisance dropouts. Fan start/stop output (12v output when on). Facility to interlock using external current switches or air pressure differential switches (4 Fans). Works with gas detectors and Carbon monoxide monitors. Electrical & Water Isolation.

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GAS DETECTION PANELS

S&S Northern have a solution for every commercial Plant room application. S&S Northern offer offer a wide range of control panels, gas detectors, heat sensors and gas solenoid valves. Whether your project is a small residential application or a large scale plant room we have the knowledge and experience to offer the perfect products. Remote monitoring, Modbus and data logging are available on our GDPX Range.

Part Number	Description
1000BH	2 Zone gas detection & gas proving system

FEATURES

- 2 zone gas detection system for up to 6 gas detectors
- Can accept inputs from remote push buttons, fire alarms & heat detectors
- Built-in connectivity to existing BAS/BMS system
- Gas pressure proving - low & high pressure shut off

Part Number	Description
GDP2	2 Zone gas detection system. An expansion of the excellent Merlin GSP1 the GDP2 operates on the two-zone gas detection having the ability to connect two remote detectors for either multi-area or multi-gas detection. The most common detectors in use are those for carbon monoxide, natural gas or LPG. In combination with this the Merlin gas detection range can incorporate any number of fusible links wired in series to the same terminal for added protection of both property and people.
GDPX+	Gas proving & detection with remote monitoring (16 detectors). Ability to identify up to 16 individual gas detector gas levels and in which monitoring zone the detector is located. Built-in connectivity to existing BAS, fire alarms & MODBUS compatibility. Gas pressure proving for low and high pressure shut off. Fascia mounted EM stop, can accept remote emergency stop buttons & heat detectors. Clear TFT display for system indications. Easy to install – The use of clearly marked PCB connections, low voltage wiring and push-fit wiring connections makes the GDPX+ very simple to install
GDP2X	8 Zone gas detection system. The Merlin GDP2X is a 2 zone gas detection panel it can be used with up to 8 Merlin gas detectors (model X) for monitoring and detecting gas including carbon monoxide, LPG, Natural Gas, Oxygen and Hydrogen.
Merlin 5OOS	The Merlin panel is designed to provide the user with an effective means of isolating the utility, via a key switch or in the event of an emergency, by operation of the emergency shut off button. The 500S has a fascia mounted emergency shut off button fitted as standard and the fascia mounted LEDs give simple and concise information to the operator. The panel is fully compatible with S&S Northern remote emergency stop terminals allowing a large number of emergency terminals to be connected in series and wired back to the panel. Easy installation. Covered by S&S Northern ltd 3 year warranty

FEATURES

- 8 zone gas detection system for up to 8 gas detectors
- TFT screen displays live gas levels & system indications (GDP2X only)
- Can accept inputs from remote push buttons, fire alarms & heat detectors
- Built-in connectivity to existing BAS/BMS systems

Part Number	Description
TFT CO/NG	Dual gas detection system - TFT colour screen CO & Nat Gas
TFT CO/LPG	Dual gas detection system - TFT colour screen CO & LPG
Merlin Gas Detector-iS	The iS range of gas detectors are used in various applications such as boiler/plant rooms, hospitals, laboratories and high rise buildings. These sensors are specifically built to work with all Merlin control panels and can also be used direct with BMS control panels. The clear digital TFT display allows the user to clearly see the current gas levels and the traffic light indicator will summarise the gas levels.
Detector	The Detector range are used in various applications such as boiler/ plant rooms, hospitals, laboratories and high rise buildings. These sensors are specifically built to work with all Merlin control panels and can also be used direct with BMS control panels. The traffic light indicator will summarise the gas levels.

FEATURES

- Emergency Shutdown of Gas & Boilers
- Compact Adaptable Design provides safety and assurances
- Individual relay outputs per gas
- Clear digital display
- Can accept inputs from remote push buttons, fire alarms & heat detectors

DETECTOR-X

Gas detector with VFC output with screen. The Detector X range are used in various applications such as boiler/plant rooms, hospitals, laboratories and high-rise buildings. These sensors are specifically built to work with all Merlin control panels and can also be used directly with BMS control panels. The traffic light indicator will summarize the gas levels: Green Safe; Yellow-Attention; Red-Danger.

Gases Available: Natural Gas, Carbon Monoxide, LPG, CO2 Refrigerant. Oxygen, NO2. Additional features: 24VDC Traffic Light Indication Audible Alarm Relay Output- Alarm 1x CL Connection for GDP Range MODBUS Output Calibration Service and End of Life Reminder.

CO2-X

Carbon dioxide monitor. The CO2-X is a dual powered carbon dioxide and temperature monitor, which has has the ability to show average readings over an 8 hour period. Additional features: Can automatically change alarm settings based on gas valve activation. CO2 and temperature levels measured and displayed clearly. 2x 0-10V Signal output. Displays average readings of CO2 concentration over an 8-hour period.

ADDITIONAL FEATURES

- End of life and fault notifications.
- Pre alarm and alarm output.
- Variable CO2 and temperature output.
- Pre alarm and alarm output.
- Variable C02 and temperature output

CO2-C1

The budget friendly Merlin CO2-C1 detector is a mains powered monitor to give the end user simplified analysis of the carbon dioxide levels in the surrounding area.

CO2 DESKTOP - WHITE

The Merlin C02 Desktop White Detector is designed specifically for use in classrooms or offices to monitor the air and help improve ventilation.

This low cost unit provides teachers with a clear indication of the C02 levels, humidity and temperature.

The sensor can be wall mounted or located on the teachers desk. Each unit comes with a 1 meter cable which can plug into the mains plug provided or via your PC USB drive.

ADDITIONAL FEATURES

- NDIRsensor
- Comes with 1 m USB cable
- Monitors & displays C02 levels, humidity & temperature through a clear LCD display
- Built-in audible alarm
- Meets DfE specification for use in school classrooms

CO2 DESKTOP - BLACK

The Merlin C02 Desktop Black Monitor with NDIR sensor is designed specifically for use in classrooms, offices or any other occupied indoor area, to monitor the air quality and help improve ventilation. This low cost unit comes complete with a 1 meter cable with a use connection so it can be powered by your computer or connecting to a standard use compatible plug.

This monitor provides teachers and end users with a clear indication of the C02 levels, humidity and temperature and also has a rechargeable lithium battery built in so can be used as a portable device without the need for a constant power supply.

ADDITIONAL FEATURES

- NDIR sensor
- Rechargeable lithium battery back-up
- Comes with 1 m USB cable
- Monitors & displays C02 levels, humidity & temperature through a clear LCD display
- Built-in audible alarm
- Meets DfE specification for use in school classrooms

MINI MERLIN CH4CD TFT

Combined natural gas & carbon monoxide detector. The Mini Mellin CH4CO TFT is a dual gas sensor carefully designed and tested to monitor levels of natural gas, Methane (NG) and carbon Monoxide (CO), in the air. If there is a dangerous build-up of gas or unsafe levels of carbon monoxide at the sensor, this device can shut off the gas supply via a gas safety valve.

ADDITIONAL FEATURES

- Dual sensor built into one controller
- End of life notification
- Shuts off gas when in high alarm
- Low voltage input to connect with emergency stops and fire alarms.
- Pre alarm and alarm output
- PG & CO detector available

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Part Number	Description
IBC 1/2" GAS VALVE	230v 4 Test Point Gas Solenoid
IBC 3/4" GAS VALVE	230v 4 Test Point Gas Solenoid
IBC 1" GAS VALVE	230v 4 Test Point Gas Solenoid
IBC 1 1/4" GAS VALVE	230v 4 Test Point Gas Solenoid
IBC 1 1/2" GAS VALVE	230v 4 Test Point Gas Solenoid
IBC 2" GAS VALVE	230v 4 Test Point Gas Solenoid

FEATURES

- IP54 Rated
- LED indicator when powered
- Have ¼" BSP downstream port for our gas proving systems

Water Leak Detection

Permanent water leak detection system aimed towards commercial properties and residential apartment blocks. The S&S WLM can be used standalone or part of a larger multi-zone detection system. Each system requires S&S probes and/or sensing cable. Water solenoid valves are also available.

MERLIN WDP

The Merlin WDP is a water leak monitoring system that has been specifically designed to help achieve the requirements of 2018: 1.0 BREEAM UK New construction (non-domestic buildings).

The WDP system will allow designers, M&E contractors and developers to achieve the 'Credit' available to reduce the impact of water leaks that may otherwise go undetected.

All the leak detection water meters and solenoid valves are WRAS-approved.

The system is designed to monitor water flowing through a pulse water meter. If the volume of water reaches the pre-set limit (customer adjustable) the system can isolate the mains water pipe, therefore limiting the amount of water and leak damage.

FEATURES

- Achieves one credit from BREEAM WAT 03
- Timer & programmable clock built in
- Two stage monitoring for occupied and unoccupied buildings
- 2 zone input for reading 2x water meters (boundary and incoming)
- BMS output available
- Volt free normally closed input for emergency stop buttons, fire alarm & security systems
- Remote sounder strobe output
- 230VAC & 24VDC outputs for water solenoid valves

MERLIN WLM CONTROLLER

The Merlin WLM system is the new S&S Northern Ltd permanent water leak detection system aimed towards commercial properties and residential apartment blocks. The Merlin WLM can be used standalone or part of a larger multi-zone detection system (WLMZ range) and comes with a clear LED status display.

Attachments available. The system should be connected with a combination of WLM-Water Sensing Cable or WLM-Probes surrounding the area which can highlight when a leak is present and automatically close a water solenoid valve. The Merlin WLM System can also be interfaced with a local sounder alarm beacon, BMS controls or text message alerts.

VRF Refrigerant Gas Detectors

Modern Refrigerant Sensors Designed for Occupiable Spaces.

Merlin RG Lite Series available with Blank Display or LED Display. Designed for all areas being directly connected to low or mains voltage supply, e.g., residential, public, commercial, and light industrial environments, such as, food retailers, hotel rooms, apartments and offices which support the following outputs:

- Analog: 1x 0-10V signals for Refrigerants (PPM).
- Digital RS-485: Modbus RTU or BACnet MS/TP communication protocols.
- Thermistor output for 3rd party temperature monitoring.
- Excellent stability and strong anti-interference, long-life sensors.
- Fully calibrated.
- Standard 3 year manufacturers warranty.
- Audible Alarm
- Visual LED for Alarm Status

Methane and R400 Blends: R1234yf / R1234ze / R134a / R32 / R404a / R407c / R410a / R454a / R454b / R454c / R455a (Others on request)

NEW GM100 COMBINED CO/NO2 MONITOR

Enclosed Car Park Gas Detection – Designed to meet EN 50545-1

Common applications: Car parks, Offices, Hotels, Warehouses, Shopping centres, Data centres, Commercial kitchens, Boiler rooms, Food processing plants, Textile plants, Maintenance bays, Emergency service stations, Wash bays, Fire stations, Ambulance bays, Hospitals, Laboratories, Welding facilities, Mechanical rooms etc.

The GM 100 is a dual CO/NO2 detector designed to protect enclosed spaces from hazardous vehicle exhaust emissions. Engineered specifically for car parks and similar environments, this 24V powered detector supports RS485 BACnet MS/TP or Modbus RTU communication for seamless integration.

FEATURES

- Dual channel operation.
- Factory calibrated field replaceable sensor modules.
- Two analogue output signals in the range of 2-10V or 4-20mA current loop principle.
- One dry-contact 1A max relay signal.
- Digital RS485 communication – Modbus RTU or BACnet MS/TP – field selectable.
- Strong anti-interference circuit boards and RoHS compliant.
- Standard corrosion resistant enclosure

The GM 100 features two alarm levels, line voltage relays with adjustable time delays, a selectable audible alarm, and an LCD display providing real-time information on power status, alarms, gas type, concentration levels, address, and fault conditions. The GM100 features an end-of-life indicators and replaceable plug and play sensor cartridges.

Suitable for both indoor and outdoor use, it should be installed in a sheltered location if placed outdoors, ensuring protection from direct sunlight, rain, and extreme conditions.

Single CO or single NO2 detectors also available.

S&S NORTHERN TEST GAS CANISTERS & REGULATOR

Used to check and maintain gas detectors.
Regulator required.

Regulator is reusable and is a one-time purchase.

Specific canisters usually in stock are:

- Carbon Monoxide
- Methane
- LPG

Other gases available to order.

GS-AQ - INDOOR AIR QUALITY AND TEMPERATURE SENSOR

The GS-AQ series of air quality transmitters determine the air quality through measurement of Total Volatile Organic Compounds (TVOC's). This signal can be used to control fresh air fans and dampers according to the ventilation load. A valuable feature of this sensor is it automatically detects what the controller input is set to, 4-20mA or 0-10Vdc. This removes the requirement for output jumpers that can be inadvertently set incorrectly.

Part Number	Description
GS-AQ-S	Space Mounted Air Quality & Temperature Sensor

Technical Features	Description
Active Outputs	0-10Vdc or 4-20mA (3-wire) self-detecting
Output ranges	Air Quality: 0 to 1,000ppb TVOC Temperature: 0 to 40°C
Power Supply	24Vac/dc ±10%
Protection	IP30
Weight	180g

Part Number	Description
GS-AQ-D	Duct Mounted Air Quality & Temperature Sensor

Technical Features	Description
Active Outputs	0-10Vdc or 4-20mA (3-wire) self-detecting
Output ranges	Air Quality: 0 to 1,000ppb TVOC Temperature: -20 to +20°C
Power Supply	24Vac/dc ±10%
Protection	IP65
Weight	250g

NOTE:
* -T versions use a thermistor element. Please specify type when ordering. When using in space sensors, they are not compensated for self heating.
* Only availiable on Space Sensor Types.
** Plain front, no user interface option available (SP/MS/LCD)

Part Number	Description
-T *	Direct resistive temperature output
-SP *	11-1kΩ/0-10kΩ setpoint
-MS *	Momentary switch
-LCD	LCD display
-TR	Custom temperature range -20 to +50°C
-5V	Output 0-5Vdc (instead of 0-10Vdc)
-BLK**	Black space housing

Suffixes (add to part code)

GS-AQ-X-UN - SINGLE OUTPUT INDOOR AIR QUALITY SENSORS

A valuable feature of this sensor is its ability to automatically detect what the controller input is set to, 4-20mA or 0-10Vdc. This removes the requirement for output jumpers that can be inadvertently set incorrectly. On board LED indication of which output type is in operation is provided. Also available with a passive resistive output for temperature, along with other passive outputs.

Part Number	Description
GS-AQ-S-UN	Space Mounted Air Quality Sensor

Technical Features	Description
Active Outputs	0-10Vdc or 4-20mA (3-wire) self-detecting
Power Supply	24Vac/dc ±10%
Output Range	0 to 10 (0 = good / 10 = poor)
Protection	IP30
Weight	200g

Part Number	Description
GS-AQ-D-UN	Duct Mounted Air Quality Transmitter

Technical Features	Description
Active Outputs	0-10Vdc or 4-20mA (3-wire) self-detecting
Power Supply	24Vac/dc ±10%
Output Range	0 to 10 (0 = good / 10 = poor)
Protection	IP65
Weight	250g

ACCESSORIES

Part Number	Part Number	Description
DECOR	Decorators trim plate	
GASKET	Insulating gasket (pack of 10)	

NOTE:
* -T versions use a thermistor element. Please specify type when ordering.
When using in space sensors, they are not compensated for self heating.

* Only availiable on Space Sensor Types.

** Plain front, no user interface option available (SP/MS/LCD)

Part Number	Description
-T *	Direct resistive temperature output
-SP *	1-11kΩ setpoint
-MS *	Momentary switch
-LCD	LCD display
-BLK**	Black space housing

Suffixes (add to part code)

GS-CO2 - CARBON DIOXIDE, TEMPERATURE AND OPTIONAL RH & IAQ SENSORS

Using a NDIR sensor for measuring CO_2 concentrations and utilizing ABC (Automatic Baseline Correction) algorithm, they offer excellent long term stability & accuracy. Available with active temperature and RH outputs, as well as other passive outputs and user interfaces. A unique feature of this sensor automatically detects what the controller input is set to, 4-20mA or 0-10Vdc. This removes the requirement for output jumpers that can be inadvertently set incorrectly.

Part Number	Description
GS-CO2-S	Space Mounted Air Quality Sensor
GS-CO2-RHT-S	**Space Mounted CO2, RH and T Sensor 0-2000ppm**
GS-CO2-AQ-S	**Space Mounted CO2, T and AQ Sensor 0-2000ppm**

Technical Features	Description
Active Outputs	0-10Vdc or 4-20mA (3-wire) self-detecting
Power Supply	24Vac/dc ±10%
Output Range	0 to 10 (0 = good / 10 = poor)
Protection	IP30
Weight	200g

Part Number	Description
GS-CO2-D	Duct Mounted CO_2 and T Sensor 0-2000ppm
GS-CO2-RHT-D	Duct Mounted CO_2, RH and T Sensor 0-2000ppm
GS-CO2-AQ-D	Duct Mounted CO_2, T and AQ Sensor 0-2000ppm

Technical Features	Description
Active Outputs	0-10Vdc or 4-20mA (3-wire) self-detecting
Power Supply	24Vac/dc ±10%
Output Range	CO_2: 0-2000ppm. Temperature: 0 to 40°C
Protection	IP65
Weight	250g

NOTE:
* -T versions use a thermistor element. Please specify type when ordering.
When using in space sensors, they are not compensated for self heating.
* Only availiable on Space Sensor Types.
** Plain front, no user interface option available (SP/MS/LCD)

Part Number	Description
-T *	Direct resistive temperature output
-SP *	11-1kΩ/0-10kΩ setpoint
-MS *	Momentary switch
-LCD	LCD display
-LED	3-Colour LED indication for CO2
-5V	Output 0-5Vdc (instead of 0-10Vdc)
-BLK**	Black space housing

Suffixes (add to part code)

GS-CO - CARBON MONOXIDE SENSORS

Sontay's range of CO sensors offer real time detection for Carbon Monoxide measurement. A valuable feature of this sensor is when in 3-wire mode it automatically detects what the controller input is set to, 4-20mA or 0-10Vdc. 2-wire loop powering selectable via DIP switch. The long life electrochemical Carbon Monoxide sensor makes it ideal for many applications including underground parking, loading bays and warehouses.

Part Number	Description
GS-CO-S	Space Mounted CO and T Sensor

Technical Features	Description
Active Outputs	0-10Vdc or 4-20mA (3-wire) self-detecting 4-20mA (2-wire) via DIP
Power Supply	24Vac/dc ±10%
Output Range	Carbon Monoxide 0 to 500ppm Temperature 0 to 40°C
Protection	IP30
Weight	200g

Part Number	Description
GS-CO-D	Duct Mounted CO and T Sensor

Technical Features	Description
Active Outputs	0-10Vdc or 4-20mA (3-wire) self-detecting 4-20mA (2-wire) via DIP
Power Supply	24Vac/dc ±10%
Output range	Carbon Monoxide 0 to 500ppm Temperature 0 to 40°C
Protection	IP65
Weight	250g

NOTE:
* -T versions use a thermistor element. Please specify type when ordering. When using in space sensors, they are not compensated for self heating. This range of Carbon Monoxide Sensors is designed for monitoring purposes and should not be used in safety applications.

* Only availiable on Space Sensor Types.

** Plain front, no user interface option available (SP/MS/LCD)

Part Number	Description
-T *	Direct resistive temperature output
-SP *	11-1kΩ/0-10kΩ setpoint
-MS *	Momentary switch
-TR	Custom temperature range -20 to +50°C
-5V	Output 0-5Vdc (instead of 0-10Vdc)
-BLK**	Black space housing

Suffixes (add to part code)

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