S&S™
MIDDLE EAST

Products & Applications Catalogue

Volume 1 - MENA

Gas, Air & Water Controls For Life & Property Safety

About Us

S&S Middle East is the leading manufacturer and provider of gas, water & air safety solutions in the MENA region, based in Dubai.

Since 1995, our UK family owned company has specialized in the manufacture and supply of high-quality products including gas detection systems, gas safety systems, water leak detection, indoor air quality monitors, and solenoid valves. Our commitment to innovation and safety ensures that our clients receive reliable and effective solutions tailored to their specific needs.

Designed and manufactured in the UK, at our ISO:9001 factory.

Global Reach

Recognizing the importance of global reach and local presence, we have expanded our operations internationally. Our global footprint includes:

United Kingdom/Europe: S&S Northern Ltd
North America: Operating under American Gas Safety
Canada: Operating under Canadian Gas Safety
New Zealand/Australia: Operating under Oceania Gas Safety

At S&S Middle East, our mission is to enhance safety and peace of mind for our clients through innovative products and exceptional service. Explore our extensive range of solutions and discover how we can help you achieve optimal safety and compliance in your environment.

Three Decades Of Experience

S&S Middle East is a family business based in Dubai, a sister company to the UK based S&S Northern Ltd, originally started in 1995 by Steve & Sue McMahon, the names behind 'S&S'.

S&S continually invest in training for every member of staff to ensure the customer receives the right product to meet their requirements at the right price and delivered on time.

S&S Middle East is committed to investing in research to improve its efficiency and the quality of its gas, air & water safety and control systems. Our products are UK manufactured in our ISO 9001 factory near London.

Our Quality

At S&S Middle East, we take pride in our commitment to safety. All our products are meticulously designed and manufactured in the UK at our ISO 9001 certified factory. Our dedicated team includes 5 full-time designers and over 40 skilled workers on the factory floor, supported by an additional 20 staff members handling administration, sales, and technical assistance.

Our reputation for excellence is built on precision engineering, ensuring that we produce the highest-quality safety solutions available. We prioritize safety research and engineering investments, setting us apart as leaders in our industry.

Each product we create reflects our unwavering dedication to protecting the health and well-being of our customers. At S&S Middle East, we are driven by a singular mission: making the world safer, one person and one building at a time.

Gas, Air & Water Controls For Life & Property Safety.

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Combined CO/NO2/PM10
Gas Detection & Ventilation Control

In the Middle East, stringent regulations govern gas detection and ventilation control systems in enclosed car parks to ensure user safety and compliance with local standards. These regulations are typically enforced by civil defense authorities and municipalities, emphasizing the detection of harmful gases such as carbon monoxide (CO), nitrogen dioxide (NO2), and particulate matter (PM10).

Gas detection systems must identify CO, a colorless and odorless gas that can cause severe health issues, NO2, which is toxic and irritates the respiratory system, and PM10, small particles that pose significant health risks. Ventilation systems must automatically activate when gas levels exceed safe thresholds, ensuring the continuous removal of harmful gases. These systems should be integrated with gas detectors for optimal air quality and energy efficiency.

Toxic materials can enter the body in many ways, and the respiratory system presents the quickest and most Alarm systems are also required, featuring audible and visual alerts to warn occupants and trigger emergency procedures if gas levels become dangerous. Regular maintenance and testing are mandated to ensure system reliability and accuracy.avenue of entry.

In the UAE, Dubai and Abu Dhabi Civil Defence regulate these requirements, while Saudi Arabia follows the Saudi Building Code (SBC). Qatar adheres to guidelines from Qatar Civil Defence and ASHRAE standards, and Kuwait and Bahrain follow similar regulations incorporating ISO standards.

S&S Middle East provides advanced CO/NO2/PM10 detection systems, meeting stringent Middle Eastern regulations for superior safety and compliance.
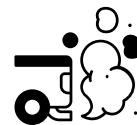
GM Series 100 - Combined CO/NO2/PM10 Sensor

Key Features:

• Single, dual or tri gas monitoring
• Replaceable, plug-and-play smart sensors
• Non-intrusive calibration
• IP65 Dust & splashproof protection
• RS485 Bacnet MS/TP or Modbus RTU
• Dust & splashproof protection
• One SPST signal relay (70mA 30V)
• 0-10VDC & 4-20mA Outputs (field selectable)
• 24V AC/DC power supply

• RGB LED status indication
• Audible alarm – 85dB.
• Operating Temperature -20° to 50°C (-4° to 122°F)
• Gas Performance UL2075 (CO & NO2)
• Supplied calibrated
• Strong anti-interference circuit boards and RoHS compliant
• Corrosion-resistant enclosure with optional accessories
• Indoor & outdoor use. 538-1076ft2 coverage
• Designed & manufactured in the UK

Product Overview:

Introducing the S&S GM Series 100 - CO/NO2/PM10 Detector, a cutting-edge solution engineered to safeguard enclosed areas from the dangers of vehicle exhaust fumes & PM10 dust protection. Specifically designed for car parks, maintenance bays, emergency service stations, wash bays, and similar environments, this 24V powered detector offers unparalleled reliability and precision. With customizable parameters accessible on-site, engineers can tailor its configuration and settings to suit the unique needs of each project, minimizing the requirement for additional hardware and streamlining the scope of work for controls contractors to ensure the sequence of operation can be achieved.

The GM Series 100 features two alarm levels, and line voltage relays with configurable time delays, a selectable audible alarm, LED status display indicating power, alarm status and fault conditions.

The equipment can be used indoors or outdoors. If used outdoors, choose a sheltered location which is protected from direct sunlight, rain, and other extreme conditions.

Applications:

Parking Garages

Emergency Services

Public Buildings

Hospitals / Medical Buildings

Commercial Buildings

Partcodes:

Product Name	Description
GM Series 100 - CO	Standalone CO monitor for enclosed car parks
GM Series 100 - NO2	Standalone NO2 monitor for enclosed car parks
GM Series 100 - CONO2	Standalone combined CO & NO2 monitor for enclosed car parks
GM Series 100 - CONO2PM10	Standalone combined CO, NO2 & PM10 monitor for enclosed car parks

Gas, Air & Water Controls For Life & Property Safety

Indoor Air Quality Monitors
Air Quality Matters. Make The Invisible Visible.

In the Middle East, maintaining optimal indoor air quality (IAQ) in occupiable public, commercial, and light industrial spaces is crucial for the health and well-being of occupants. Regulatory frameworks across the region mandate stringent IAQ monitoring and control measures, aligning with international standards to address air quality concerns and promote healthy buildings.

Regulatory bodies, such as the Dubai Municipality and Abu Dhabi's Department of Municipal Affairs, have established guidelines for IAQ. These regulations require the continuous monitoring of key air quality parameters, including Carbon dioxide (CO_2), temperature, humidity, volatile organic compounds (VOCs), and particulate matter (PM10, PM2.5 and PM1). Ensuring these measures are met is essential for maintaining safe and comfortable indoor environments.

This focus on IAQ is especially important in the Middle East due to the region's hot temperatures and dusty environment. High temperatures can exacerbate the effects of poor air quality, necessitating effective temperature and humidity control. The dusty environment, characterized by frequent sandstorms and high levels of outdoor particulate matter, significantly impacts indoor air quality. Without proper monitoring, dust particles can infiltrate buildings, leading to respiratory problems and other health issues for occupants.

Poor IAQ can cause elevated CO_2 levels, leading to discomfort, headaches, and reduced cognitive function. Improper temperature and humidity levels affect comfort and health, potentially causing dehydration and respiratory problems. VOCs can cause irritation and long-term health issues, while dust particles (PM10, PM2.5 & PM1) can penetrate deep into the respiratory system, leading to asthma and other serious conditions.

RS IAQ - Combined CO2, Temperature, Humidity, PM1, PM2.5, PM10 & VOCs

Key Features:

- RS485 digital output
  Bacnet MS/TP or modbus RTU
- 24V AC/DC or 110-240V AC
- Blank or display screen available
- Non-intrusive calibration
- Automatic ventilation control
- Meets WELL performance & RESET

- TFT display screen traffic light indicator
- In-built audible alarm
- Strong anti-interference circuit boards and RoHS compliant
- Corrosion-resistant enclosure with optional accessories
- Indoor & outdoor use. 538-1076ft2 coverage
- Duct mounting probe available
- Designed & manufactured in the UK

Product Overview:

Introducing the S&S RS IAQ (Indoor Air Quality) Monitor, an advanced environmental monitoring solution designed to provide comprehensive insights into indoor air quality parameters.

With the ability to monitor and measure carbon dioxide (CO2), temperature, humidity, dust (PM), volatile compounds (VOCs), and relative humidity, this system is engineered for a wide array of applications in residential, public, commercial, and light industrial environments.

The RS IAQ can operate as a standalone unit, or with 3rd party devices capable of accepting digital signals, i.e., Building Management System (BMS) through RS485 Bacnet MS/TP or Modbus RTU.

Applications:

Occupiable Spaces	Academic Buildings	Public Buildings	Hospitals / Medical Buildings	Commercial Buildings

Partcodes:

Product Name	Description
RS IAQ - BAC	24VAC/DC Indoor Air Quality Sensor - BACNET (PM1, PM2.5, PM10, VOC, RH, CO2) - Blank
RS IAQ - MOD	24VAC/DC Indoor Air Quality Sensor - BACNET (PM1, PM2.5, PM10, VOC, RH, CO2) - Blank
RS IAQS - BAC	24VAC/DC Indoor Air Quality Sensor - MODBUS (PM1, PM2.5, PM10, VOC, RH, CO2) - Screen
RS IAQS - MOD	24VAC/DC Indoor Air Quality Sensor -MODBUS (PM1, PM2.5, PM10, VOC, RH, CO2) - Screen
RSV IAQ - BAC	110-240VAC Indoor Air Quality Sensor - BACNET (PM1, PM2.5, PM10, VOC, RH, CO2) - Blank
RSV IAQ - MOD	110-240VAC Indoor Air Quality Sensor - BACNET (PM1, PM2.5, PM10, VOC, RH, CO2) - Blank
RSV IAQS - BAC	110-240VAC Indoor Air Quality Sensor - MODBUS (PM1, PM2.5, PM10, VOC, RH, CO2) - Screen
RSV IAQS - MOD	110-240VAC Indoor Air Quality Sensor -MODBUS (PM1, PM2.5, PM10, VOC, RH, CO2) - Screen

Indoor Room Sensors
Comfort Matters. Optimize Every Breath

In the Middle East, maintaining optimal conditions in occupiable public, commercial, and light industrial spaces is vital for the health and well-being of occupants. Regulatory frameworks across the region mandate stringent monitoring and control measures for indoor environments, aligning with international standards to address environmental concerns and promote healthy buildings.

Regulatory bodies, such as the Dubai Municipality and Abu Dhabi's Department of Municipal Affairs, have established guidelines for maintaining safe indoor environments. These regulations require the continuous monitoring of key parameters, including carbon dioxide (CO_2), temperature, and humidity. Ensuring these measures are met is essential for maintaining safe and comfortable indoor environments.

This focus on environmental monitoring is especially important in the middle east due to the region's hot temperatures and dusty environment.

High temperatures can exacerbate the effects of poor air quality, necessitating effective temperature and humidity control. The dusty environment, characterized by frequent sandstorms and high levels of outdoor particulate matter, significantly impacts indoor conditions. Without proper monitoring, dust particles can infiltrate buildings, leading to respiratory problems and other health issues for occupants.

Poor indoor conditions can cause elevated CO_2 levels, leading to discomfort, headaches, and reduced cognitive function. Improper temperature and humidity levels affect comfort and health, potentially causing dehydration and respiratory problems. Accurate monitoring of these parameters is crucial to preventing these issues and ensuring a healthy indoor environment.

RS - Combined CO2, Temperature & Humidity

Key Features:

- Single, dual or triple sensor
- RS485 digital output
  Bacnet MS/TP or modbus RTU
- 24V AC/DC or 110-240V AC
- Blank, LED or display screen available
- Automatic ventilation control
- 1 x SPST VFC relay 70mA Max (CO2)

- Non-intrusive calibration
- In-built audible alarm
- Strong anti-interference circuit boards and RoHS compliant.
- Corrosion-resistant enclosure with optional accessories
- Indoor & outdoor use. 538-1076ft2 coverage
- Duct mounting probe available
- Designed & manufactured in the UK

Product Overview:

Introducing the S&S RS Indoor Room Sensor Range, our advanced environmental monitoring solution designed to provide comprehensive insights into indoor air quality parameters. This range is engineered to monitor and measure essential factors such as carbon dioxide (CO2), temperature, and humidity, ensuring precise control over indoor environments. Ideal for residential, public, commercial, and light industrial applications, these sensors play a crucial role in maintaining healthy and comfortable indoor conditions.

The RS can operate as a standalone unit, or with 3rd party devices capable of accepting digital signals, i.e., Building Management System (BMS) through RS485 Bacnet MS/TP or Modbus RTU.

Applications:

| Occupiable Spaces | Academic Buildings | Public Buildings | Hospitals / Medical Buildings | Commercial Buildings |

Partcodes:

Model	Descriptions
RS	24VAC/DC
RSV	120VAC
Sensors	
CO2	CO2 Only
CO2T	CO2 & Temperature
CO2TH	CO2, Temperature & Humidity
T	Temperature Only
TH	Temperature & Humidity
Display Type	
1	Blank Display
2	LED Display
3	TFT Display Screen
Communications Outputs	
*Leave Blank	0-10V Output & VFC Relay
-MOD	0-10V Output, VFC Relay & Modbus
-BAC	0-10V Output, VFC Relay & Bacnet

ASHRAE BACnet®   **Modbus**

Example (1)	**Example (2)**	**Example (3)**
RSCO2TH1-BAC	RSCO2T2-MOD	RSVCO23

Refrigerant Gas Leak Detection
Unseen Risks, Visible Solutions.

In the Middle East, refrigerant gas leak detection in chiller rooms is critical for safety, environmental protection, and efficient HVAC operation. Regulatory frameworks such as those from Dubai Municipality and the Abu Dhabi Department of Energy mandate rigorous monitoring and control of refrigerants. These regulations emphasize the need for leak detection systems in large commercial buildings and public facilities to minimize environmental impact and ensure occupant safety.

In Saudi Arabia, the Saudi Standards, Metrology and Quality Organization (SASO) and the Saudi Building Code (SBC) provide specific requirements for HVAC systems, including refrigerant leak detection to prevent environmental damage and ensure safety. Qatar's Qatar Construction Specifications (QCS) also mandate the installation of leak detection systems in chiller rooms, enforced by the Ministry of Municipality and Environment (MME) to control refrigerant emissions and ensure safety.

International standards such as ASHRAE Standard 15 and Standard 34, along with ISO 5149, are widely referenced. These standards provide guidelines for the safe design, construction, installation, and operation of refrigeration systems, emphasizing the necessity of leak detection and control measures.

Key regulatory requirements include continuous monitoring of refrigerant gases, alarm systems to alert personnel of leaks, and adequate ventilation and extraction systems to mitigate leaks' effects. Regular maintenance and inspection of HVAC systems and leak detection equipment are also mandated to ensure compliance and proper functioning.

S&S Middle East. offers advanced refrigerant gas leak detection solutions that meet these regulatory requirements. Our sensors monitor a wide range of gases, including new A2L lower global warming potential refrigerants, and use Modbus RS485 communications for seamless integration with Building Management Systems (BMS).

Refrigerant Leak Detection - Chiller Rooms

GDPX+ Controller Key Features:

• 16 zones for up to 16 individual sensors
• Modbus RTU connectivity
• 110-240V AC powered
• Building management system relay output
• Fire alarm and remote emergency button inputs
• Refrigerant solenoid valve control output
• Ventilation activation control output
• In-built sounder & visual alarm
• Remote sounder/visual alarm strobe output
• Designed & manufactured in the UK

Detector X Key Features:

• 24VAC/DC powered from GDPX+
• TFT traffic light display screen indicator
• Modern and compact design
• Plug & play installation - no programming needed
• In-built audible alarm
• Designed & manufactured in the UK

Product Overview:

The Merlin GDPX+ is an advanced 16-zone detection panel designed for comprehensive refrigerant gas leak detection in chiller rooms. Capable of monitoring up to 40 different gases, including new A2L refrigerants, the GDPX+ offers plug-and-play installation with no programming required.

The touch screen interface of the GDPX+ features both engineer and user modes, allowing easy configuration via a settings dip switch. Once adjustments are made, the system automatically restarts, ensuring seamless operation. Each of the 16 detectors can be individually monitored on the TFT display, providing precise and real-time data.

Integration with Building Management Systems (BMS), mechanical ventilation, fire alarms, and remote emergency buttons enhances safety and operational efficiency. The system can activate remote audible alarm strobes through its 24VDC output and shutdown liquid line solenoid valves and electrical contactors during an alarm through its 230V output.

The Merlin Refrigerant Detector-X, utilizing NDIR technology, functions as a standalone unit or with the Merlin controller. Mounted 12 inches from the floor for optimal detection, it alarms at 1000ppm, triggering ventilation fans and alarms to promptly address leaks, ensuring a safe environment.

Applications:

Chiller Rooms

Academic Buildings

Public Buildings

Hospitals / Medical Buildings

Commercial Buildings

Partcodes:

| Product Name	Description
GDPX+	16 Zone Gas Detection & Ventilation Controller with Modbus Connectivity
GDP2X	8 Zone Gas Detection & Ventilation Controller
Refrigerant Detector X	Refrigerant Gas Detector R*** (i.e. R134a - Contact S&S Middle East For List Of Refrigerant Gases Available)
Remote Audible Alarm Strobe	24VDC Remote Audible Alarm Strobe

Gas, Air & Water Controls For Life & Property Safety
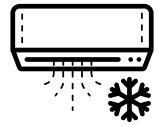
VRF Refrigerant Gas Leak Detection
Protecting Lives, Detecting Leaks: Safeguarding VRF Systems with Precision

Regulations surrounding Variable Refrigerant Flow (VRF) leak detection in the Middle East primarily focus on ensuring safety, environmental protection, and efficient operation of HVAC systems using these technologies. While specific regulations can vary slightly between countries and municipalities, several common themes and standards are observed across the region.

In the United Arab Emirates, including Dubai and Abu Dhabi, regulatory bodies such as the Dubai Municipality and the Abu Dhabi Department of Energy enforce guidelines for HVAC installations and maintenance. These guidelines often require the implementation of leak detection systems for refrigerants, including those used in VRF systems. The emphasis is on preventing environmental damage and ensuring the safety of building occupants by detecting leaks early and implementing necessary corrective measures.

Saudi Arabia follows similar principles through standards set by the Saudi Standards, Metrology and Quality Organization (SASO) and the Saudi Building Code (SBC). These standards outline specific requirements for HVAC systems, including provisions for leak detection to minimize refrigerant emissions and enhance safety.

In Qatar, the Qatar Construction Specifications (QCS) govern the installation and maintenance of HVAC systems, requiring leak detection systems to be integrated into VRF systems to mitigate environmental impact and ensure operational safety.

Internationally recognized standards such as those from the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) and the International Organization for Standardization (ISO) are also influential. These standards provide guidelines for the safe design, installation, and operation of refrigeration systems, including the implementation of effective leak detection measures.
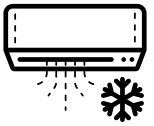
RS RG - VRF Refrigerant Gas Leak Detectors

Key Features:

- RS485 digital output
  Bacnet MS/TP or modbus RTU
- Analog output: 0-10V relay
- Volt free relay output
- 24V AC/DC or 110-240V AC powered
- Fully calibrated
- Blank or LED display available

- 40 Refrigerant gases available
- Blank or LED display available
- In-built audible alarm
- Strong anti-interference circuit boards and RoHS compliant
- Duct mounting probe available
- Thermistor output
- Designed & manufactured in the UK

Product Overview:

Discover the S&S RSRG VRF Refrigerant Gas Detector, crafted for the Middle East's reliance on refrigerants in air conditioning & VRF (variable refrigerant flow) systems. Engineered by S&S Middle East, this detector ensures top-tier safety and efficiency in residential, commercial & light industrial settings.

Equipped with advanced sensors, the S&S RS RG Detector swiftly identifies leaks of refrigerants, critical for HVAC system integrity. Its robust design meets international standards, ensuring reliability in high-temperature climates. 40 refrigerant gases available, including new A2L lower global warming potential gases.

Installation is effortless with its user-friendly interface and adjustable sensitivity settings, seamlessly integrating into any environment. The compact size allows discreet placement without compromising aesthetics.

Safety is prioritized with audible and visual alarms that promptly alert to leaks, enabling quick response and mitigation. Ideal for facilities managers, HVAC technicians, and homeowners, the S&S Detector offers proactive monitoring to protect equipment and occupants alike, making it the premier choice for air conditioning safety in the Middle East.

Applications:

Occupiable Spaces

Academic Buildings

Public Buildings

Hospitals / Medical Buildings

Commercial Buildings

Partcodes:

Product Name	Description
RSRG1 - R*** -	RS Refrigerant Detector - R*** (Specify Refrigerant Gas) - 24/230V Power Supply With Blank Display
RSRG2 - R***	RS Refrigerant Detector - R*** (Specify Refrigerant Gas) - 24/230V Power Supply With LED Display

Gas, Air & Water Controls For Life & Property Safety
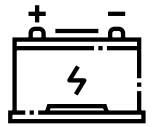
Hydrogen Gas Leak Detection
Ensuring Safe and Reliable Battery Storage

Regulations surrounding hydrogen gas detection in battery storage applications in the Middle East are crucial for safety, environmental protection, and operational efficiency. Key regulatory bodies such as the Dubai Municipality and the Abu Dhabi Department of Energy in the UAE enforce stringent guidelines requiring hydrogen gas detection systems in battery storage facilities to prevent explosions and ensure occupant safety. These regulations emphasize early leak detection to enable timely corrective actions.

In Saudi Arabia, standards set by the Saudi Standards, Metrology and Quality Organization (SASO) and the Saudi Building Code (SBC) mandate the inclusion of hydrogen gas detection in battery storage systems to mitigate risks and enhance safety. Regular maintenance and inspection of these systems are also required to ensure continuous protection.

Qatar's regulations, governed by the Qatar Construction Specifications (QCS) and enforced by the Ministry of Municipality and Environment (MME), similarly demand the integration of hydrogen gas detection in battery storage facilities to prevent environmental and safety hazards.

International standards from bodies like the National Fire Protection Association (NFPA) and the International Organization for Standardization (ISO) also influence these regulations, providing guidelines for safe design, installation, and operation of battery storage systems.

S&S Middle East offers advanced hydrogen gas detectors compatible with BMS systems, ensuring compliance with these stringent Middle Eastern regulations and providing reliable, real-time monitoring for battery storage applications.
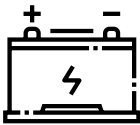
HGD 100 - Hydrogen Gas Detection

Key Features:

- Replaceable sensor with a long life
- 230AC, 24V AC, 18-60VDC power supply
- 2 x Internal relays for fan/alarm activation
- 2 x Analogue outputs 0-10V or 4-20mA

- Output to external strobe
- 4second alarm delay to prevent false activation
- Supplied calibrated
- Designed and manufactured in the UK

Product Overview:

Introducing the S&S HGD Series 100 Hydrogen Detector, designed to monitor hydrogen gas buildup in storage rooms and facilities that house batteries. The detector provides terminal block connections for single-phase 230 AC, 24VAC or 18-60VDC power. Detected Hydrogen levels are displayed in % Vol and traffic light indication - Green (Normal) Yellow (Warning) Alarm (Red).

The control relays are used to switch an extract fan and warning alarms, the detector also provides analogue outputs that can be connected directly to the fan speed controller to regulate the fan speed. If the concentration of hydrogen gas detected reaches 1% Vol the screen will display yellow, and the warning relay will close activating the ventilation fan. If the concentration reaches 2% the screen will display red, and the alarm relay and an 80 dB internal warning will sound.
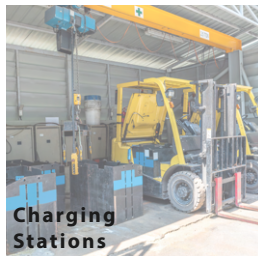
Applications:

Battery Storage

Emergency Services

Power Stations

Hydrogen Refuelling Stations

Charging Stations

Partcodes:

Product Name	Description
HGD100 Series	Hydrogen Gas Monitor

Combustible & Toxic Gas Leak Detection
Guarding Every Space

Regulations governing combustible and toxic gas leak detection in the Middle East prioritize safety, environmental sustainability, and operational efficiency in HVAC systems utilizing these gases. While regulations vary across countries and municipalities, they universally emphasize early detection and mitigation of gas leaks to protect occupants and infrastructure.

In the United Arab Emirates, including Dubai and Abu Dhabi, regulatory oversight by entities like the Dubai Municipality and the Abu Dhabi Department of Energy mandates stringent guidelines for gas detection systems. These regulations require integration of detectors for natural gas, carbon monoxide (CO), LPG, hydrogen, refrigerants, oxygen, nitrogen dioxide (NO2), and carbon dioxide (CO2) into HVAC systems to minimize risks and ensure compliance with environmental and safety standards.

Saudi Arabia adheres to similar principles through standards set by the Saudi Standards, Metrology and Quality Organization (SASO) and the Saudi Building Code (SBC), which detail specific requirements for gas detection equipment in commercial and industrial settings. Qatar follows suit with regulations outlined in the Qatar Construction Specifications (QCS), stipulating the integration of gas detection systems to enhance safety measures.

Internationally recognized standards from organizations like ASHRAE and ISO provide additional guidelines for the design, installation, and operation of gas detection systems, ensuring comprehensive safety protocols are upheld across the Middle East.

Detector i/iS - Standalone Combustible and Toxic Gas Leak Detection

Detector iS Key Features:

• 24V AC/DC or 110-240V AC powered
• Traffic light indicator display
• 0-10V output
• Alarm relay volt free output
• Plug & play installation
• In-built audible alarm
• Designed & manufactured in the UK

Detector i Key Features:

• 24V AC/DC or 110-240V AC powered
• LED status indication display
• 0-10V output
• Alarm relay volt free output
• Plug & play installation
• In-built audible alarm
• Designed & manufactured in the UK

Product Overview:

Introducing the S&S Middle East range of standalone fixed gas detectors tailored for commercial and light industrial properties. Our comprehensive lineup includes detectors for natural gas, carbon monoxide (CO), carbon dioxide (CO_2), LPG, oxygen (O_2), refrigerants, and nitrogen dioxide (NO_2). These detectors are meticulously crafted to meet stringent performance standards, ensuring precise monitoring of gas concentrations in various operational settings.

The Merlin Gas Detector-iS & i series exemplifies our dedication to safety and innovation. Equipped with advanced sensing technologies, these detectors swiftly detect gas leaks and provide accurate readings.

Featuring local display panels for real-time data visualization, audible alarms for immediate alerts, and seamless integration with building management systems (BMS).

Ideal for various commercial & light industrial environments such as boiler rooms, commercial kitchens and labs, our standalone detectors provide early hazard detection, enabling prompt responses and mitigation actions to enhance safety and regulatory compliance.

With our proven expertise in gas detection solutions, S&S Middle East ensures dependable performance, safeguarding commercial and light industrial properties from potential gas-related risks.

Applications:

Boiler Rooms

Academic Buildings

Public Buildings

Hospitals / Medical Buildings

Commercial Buildings

Partcodes:

Product Name	Description
NG i Detector	24V AC/DC Natural Gas Detector, 0-10V output, 2x VFC Switch, LEDs on front fascia
CO i Detector	24V AC/DC Carbon Monoxide Detector, 0-10V output, 2x VFC Switch, LEDs on front fascia
LPG i Detector	24V AC/DC LPG Gas Detector, 0-10V output, 2x VFC Switch, LEDs on front fascia
CO2 i Detector	24V AC/DC Carbon Dioxide (CO2), 0-10V output, 2x VFC Switch, LEDs on front fascia
NO2 i Detector	24V AC/DC Nitrogen Dioxide (NO2), 0-10V output, 2x VFC Switch, LEDs on front fascia
H i Detector	24V AC/DC Hydrogen Gas Detector, 0-10V output, 2x VFC Switch, LEDs on front fascia
R i Detector	24V AC/DC Refrigerant Gas Detector, 0-10V output, 2x VFC Switch, LEDs on front fascia - Specify refrigerant gas required
NG iS Detector	24V AC/DC Natural Gas Detector, 0-10V output, 2x VFC Switch, TFT Screen
CO iS Detector	24V AC/DC Carbon Monoxide Detector, 0-10V output, 2x VFC Switch, TFT Screen
LPG iS Detector	24V AC/DC LPG Gas Detector, 0-10V output, 2x VFC Switch, TFT Screen
CO2 iS Detector	24V AC/DC Carbon Dioxide (CO2) Detector, 0-10V output, 2x VFC Switch, TFT Screen
NO2 iS Detector	24V AC/DC Nitrogen Dioxide Gas Detector, 0-10V output, 2x VFC Switch, TFT Screen
H iS Detector	24V AC/DC Hydrogen Gas Detector, 0-10V output, 2x VFC Switch, TFT Screen
R iS Detector	24V AC/DC Refrigerant Gas Detector, 0-10V output, 2x VFC Switch, TFT Screen - Specify refrigerant gas required
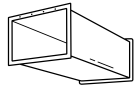
Duct Mount Gas Leak Detection
In-Duct Safety, Out-of-Sight Protection

Regulations governing duct mount gas detectors in the Middle East focus on safety, environmental protection, and operational efficiency within HVAC systems that manage a variety of gases. The need for effective gas detection is paramount to safeguard against hazards posed by carbon monoxide (CO), refrigerants, natural gas, carbon dioxide (CO_2), hydrogen, liquefied petroleum gas (LPG), and nitrogen dioxide (NO_2).

In the United Arab Emirates, authorities such as the Dubai Municipality and the Abu Dhabi Department of Energy impose strict regulations for gas detection systems. These regulations mandate the installation of duct mount detectors to monitor harmful gases, ensuring prompt detection and response to potential leaks. Carbon monoxide, a colorless and odorless gas, poses serious health risks, making its early detection crucial for occupant safety. Similarly, the use of refrigerants in cooling systems necessitates vigilant monitoring to prevent leaks that could lead to environmental damage and regulatory non-compliance.

Saudi Arabia follows comparable safety protocols as dictated by the Saudi Standards, Metrology and Quality Organization (SASO) and local building codes, which require gas detection solutions across commercial and industrial environments. These systems are essential in identifying natural gas leaks that could lead to explosive situations and addressing the presence of nitrogen dioxide, which can adversely affect respiratory health.

Qatar's regulations, guided by the Qatar Construction Specifications (QCS), further emphasize the importance of gas detection in mitigating the risks associated with LPG and hydrogen, both of which can pose significant safety hazards if not properly monitored.

By adhering to internationally recognized standards from organizations like ASHRAE and ISO, the Middle East establishes a comprehensive framework for the design, installation, and operation of duct mount gas detection systems. This proactive approach enhances safety, protects infrastructure, and ensures compliance with environmental regulations across the region.
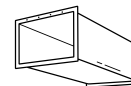
Detector DRS - Standalone Duct Mount Gas Detectprs

Detector DRS Key Features:

• 24V AC/DC or 110-240V AC powered
• Traffic light indicator display
• 0-10V or 4-20mA output
• Alarm relay volt free output
• Bacnet MS/TP or Modbus RTU (field selectable)
• Plug & play installation
• In-built audible alarm
• Available with CO, CO2, NG, LPG, H2, NO2 & Refrigerant sensors
• Designed & manufactured in the UK

Product Overview:

Introducing the Merlin DRS Duct Mount Sensors from S&S Middle East, specifically engineered for reliable gas detection within HVAC systems in commercial and light industrial environments. These sensors are optimized for monitoring air quality and gas concentrations in ducted systems, ensuring effective detection of a variety of gases, including natural gas, carbon monoxide (CO), carbon dioxide (CO2), LPG, hydrogen (H2), nitrogen dioxide (NO2), and refrigerants.
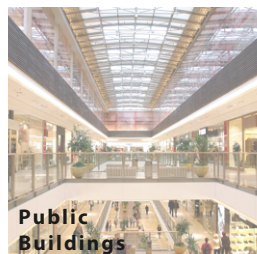
The Merlin DRS sensors incorporate advanced detection technologies tailored for duct mount applications, providing swift identification of gas leaks to enhance safety within operational spaces.

Featuring a traffic light indicator display, these sensors deliver clear visual signals regarding gas levels, while in-built audible alarms promptly alert personnel to any potential hazards, facilitating immediate action.

Designed for seamless integration into existing HVAC systems, the Merlin DRS sensors offer versatile power options of 24V AC/DC or 110-240V AC. They easily connect to building management systems (BMS) via Bacnet MS/TP or Modbus RTU, ensuring efficient monitoring and control.

The plug-and-play installation simplifies deployment, making them ideal for critical environments where gas safety is paramount.

Applications:

Occupiable Spaces | Academic Buildings | Public Buildings | Hospitals / Medical Buildings | Commercial Buildings

Partcodes:

Product Name	Description
NG DRS Detector	24V AC/DC Natural Gas Detector, 0-10V output, 2x VFC Switch, LEDs on front fascia
CO DRS Detector	24V AC/DC Carbon Monoxide Detector, 0-10V output, 2x VFC Switch, LEDs on front fascia
LPG DRS Detector	24V AC/DC LPG Gas Detector, 0-10V output, 2x VFC Switch, LEDs on front fascia
CO2 DRS Detector	24V AC/DC Carbon Dioxide (CO2), 0-10V output, 2x VFC Switch, LEDs on front fascia
NO2 DRS Detector	24V AC/DC Nitrogen Dioxide (NO2), 0-10V output, 2x VFC Switch, LEDs on front fascia
H DRS Detector	24V AC/DC Hydrogen Gas Detector, 0-10V output, 2x VFC Switch, LEDs on front fascia
R DRS Detector	24V AC/DC Refrigerant Gas Detector, 0-10V output, 2x VFC Switch, LEDs on front fascia - Specify refrigerant gas required

Water Leak Detection & Useage Monitoring
Prevent, Detect, Protect.
Your Partner in Water Leak Detection Solutions.

Regulations governing water leak detection across the Middle East prioritize safety, environmental protection, and operational continuity in various building types and environments. In the United Arab Emirates (UAE), including Dubai and Abu Dhabi, mandates from entities such as the Dubai Municipality and the Abu Dhabi Department of Energy require the installation of water leak detection systems in commercial, residential, and industrial buildings. These regulations aim to mitigate risks associated with water damage in areas like basements, server rooms, kitchens, and bathrooms, where leaks could disrupt operations and compromise structural integrity.

Similarly, Saudi Arabia mandates compliance with standards set by entities like the Saudi Standards, Metrology and Quality Organization (SASO) and local building codes, ensuring that water leak detection systems are installed in commercial properties. This proactive approach helps in early leak detection, minimizing potential losses and operational disruptions.

In Qatar, regulations overseen by the Ministry of Municipality and Environment (MME) and guided by the Qatar Construction Specifications (QCS) require the integration of water leak detection systems in commercial buildings. These measures align with international safety standards, reducing water wastage and preserving resources while safeguarding building infrastructure and occupants.

Across the Middle East, adherence to these regulations supports sustainable building practices and ensures compliance with safety standards, benefiting property owners, tenants, and stakeholders by enhancing safety, reducing risks, and promoting efficient resource management.

WLM - Water Leak Monitor

WLM Controller Key Features:

• 24V AC/DC or 110-240V AC powered
• LED status indicator
• Volt free relay
• In-built audible alarm
• Solenoid valve isolation
• Used with WLM sensing cables or pucks
• Connectors & clips included as standard
• Designed & manufactured in the UK

WLM Leak Cable Key Features:

• Various sensing cable lengths available
• 2 core (alarm) or 4 core (alarm & fault)
• Fault condition provides wiring or cable breakage indications
• 4 core is pluggable, allowing multiple sensors to go back to one Merlin WLM
• Plug & play installation

WLM Pucks Key Features:

• Designed & manufactured in the UK

Product Overview:

Introducing our WLM Water Leak Detection Systems tailored for the Middle East, where protecting against water damage is crucial.

Engineered by S&S Middle East, these systems are used with sensing cables: 2-core for basic alarm functionality and 4-core for comprehensive alarm and fault detection, including monitoring for wiring or cable breakages. This ensures early detection and minimizes maintenance downtime. The 4 core is a pluggable type, allowing multiple sensors to go back to one Merlin WLM. Sensing pucks are also available for smaller applications such as drip trays or underneath water heaters.

User-friendly interfaces provide real-time monitoring and immediate alerts, empowering facility managers to respond swiftly to leaks or faults. Safety is prioritized with audible and visual alarms that promptly alert to leaks, enabling quick response and mitigation.

Designed to withstand the region's demanding conditions, these systems deliver reliability and performance across commercial, residential, and light industrial sectors. Trust S&S Middle East for robust solutions that safeguard your property and operations against water-related risks.

Applications:

Occupiable Spaces   **Academic Buildings**   **Public Buildings**   **Hospitals / Medical Buildings**   **Commercial Buildings**

Partcodes:

Product Name	Description
WLM	Single Zone Water Leak Detection Controller
WLMC2	2 metre 2 Core Water Leak Cable (Including 2m Lead Wire)
WLMC5	2 metre 5 Core Water Leak Cable (Including 2m Lead Wire)
WLMC10	2 metre 10 Core Water Leak Cable (Including 2m Lead Wire)
WLMC25	2 metre 25 Core Water Leak Cable (Including 2m Lead Wire)
WLMC50	2 metre 50 Core Water Leak Cable (Including 2m Lead Wire)
WLMFC5	5 metre 4 Core Water Leak Cable (Fault Detection Included) - Lead Wire Not Included
WLMFC10	10 metre 4 Core Water Leak Cable (Fault Detection Included) - Lead Wire Not Included
WLMFC20	20 metre 4 Core Water Leak Cable (Fault Detection Included) - Lead Wire Not Included
WLMFC50	50 metre 4 Core Water Leak Cable (Fault Detection Included) - Lead Wire Not Included
WLMFC100	100 metre 4 Core Water Leak Cable (Fault Detection Included) - Lead Wire Not Included
WLMP	Water Leak Puck / Probe for connection to Merlin WLM

Gas, Air & Water Controls For Life & Property Safety

WLMX - Water Leak Monitor with Location Monitoring

WLMX Controller Key Features:

• 24V AC/DC or 110-240V AC powered
• TFT display screen status indicator for
  location monitoring (meters)
• Volt free relay
• In-built audible alarm
• Solenoid valve isolation
• Modbus RTU connectivity
• Used with WLMFC sensing cables or pucks
• Connectors & clips included as standard
• Designed & manufactured in the UK

WLM Leak Cable Key Features:

• Various sensing cable lengths available
• 4 core is pluggable, allowing multiple sensors
to go back to one Merlin WLMX
• Plug & play installation

Product Overview:

Introducing our WLMX Water Leak Detection Systems with water leak location monitoring, tailored for the Middle East, where protecting against water damage is crucial.

Engineered by S&S Middle East, these systems are used with 4-core water leak cables for comprehensive location monitoring (in meters). If a leak is detected, the WLMFC 4 core rope will communicate the location of the leak to the WLMX monitor and provide an alarm. The cable also includes fault detection, monitoring for wiring or cable breakages. This ensures early detection and minimizes maintenance downtime. The 4 core is a pluggable type, allowing multiple sensors to go back to one Merlin WLMX.

User-friendly interfaces provide real-time monitoring and immediate alerts, empowering facility managers to respond swiftly to leaks or faults. Safety is prioritized with audible and visual alarms that promptly alert to leaks, enabling quick response and mitigation.

Designed to withstand the region's demanding conditions, these systems deliver reliability and performance across commercial, residential, and light industrial sectors. Trust S&S Middle East for robust solutions that safeguard your property and operations against water-related risks.

Applications:

Occupiable Spaces

Academic Buildings

Public Buildings

Hospitals / Medical Buildings

Commercial Buildings

Partcodes:

Product Name	Description
WLMX	Single Zone Water Leak Detection Controller with Location Monitoring
WLMFC5	5 metre 4 Core Water Leak Cable (Fault Detection Included) - Lead Wire Not Included
WLMFC10	10 metre 4 Core Water Leak Cable (Fault Detection Included) - Lead Wire Not Included
WLMFC20	20 metre 4 Core Water Leak Cable (Fault Detection Included) - Lead Wire Not Included
WLMFC50	50 metre 4 Core Water Leak Cable (Fault Detection Included) - Lead Wire Not Included
WLMFC100	100 metre 4 Core Water Leak Cable (Fault Detection Included) - Lead Wire Not Included

WCM - Water Check Monitor (Combined Flow Monitoring & Leak Detection)

WCM Controller Key Features:

- Combined flow monitoring & leak detection
- Automatic water shut off as standard
- Various programmable settings dependent on occupancy
- Automatic holiday mode protection
- Audible & visual indication
- Insurance tariffs can be significantly reduced if permanent water leak detection is installed. Aviva, Zurich, More Than and other insurance companies all recommend water leak detection for residential properties

Water Leak Sensors:

- Sensing cables & pucks available
- 2 core (alarm) or 4 core (alarm & fault)
- Plug & play installation

Water Meters:

- Various sizes & types available
- Pulsed output signal communicates flow reading to the WCM controller

Product Overview:

Introducing our WCM Water Check Monitoring system, designed by S&S Middle East to protect against accidental water leaks caused by burst or leaking pipes. This advanced system combines continuous water flow monitoring with precise point leak detection, ensuring comprehensive protection for properties. The WCM automatically resets when the water flow stops, allowing users to set a maximum flow time before the supply is shut off, preventing unnoticed leaks.

The Vacant Mode provides alternative settings for early detection during low occupancy periods, while up to three zones can be configured with rope or puck sensors to cover diverse areas. This versatile setup offers a complete water leak detection solution for enhanced peace of mind and reduced maintenance needs.

Applications:

| Occupiable Spaces | Academic Buildings | Public Buildings | Hospitals / Medical Buildings | Commercial Buildings |

Partcodes:

Product Name	Description
WCM	Water Check Monitor - Combined Flow Monitoring & Point Leak Detection
WLMC2	2 metre 2 Core Water Leak Cable (Including 2m Lead Wire)
WLMC5	2 metre 5 Core Water Leak Cable (Including 2m Lead Wire)
WLMC10	2 metre 10 Core Water Leak Cable (Including 2m Lead Wire)
WLMC25	2 metre 25 Core Water Leak Cable (Including 2m Lead Wire)
WLMC50	2 metre 50 Core Water Leak Cable (Including 2m Lead Wire)
WLMFC5	5 metre 4 Core Water Leak Cable (Fault Detection Included) - Lead Wire Not Included
WLMFC10	10 metre 4 Core Water Leak Cable (Fault Detection Included) - Lead Wire Not Included
WLMFC20	20 metre 4 Core Water Leak Cable (Fault Detection Included) - Lead Wire Not Included
WLMFC50	50 metre 4 Core Water Leak Cable (Fault Detection Included) - Lead Wire Not Included
WLMFC100	100 metre 4 Core Water Leak Cable (Fault Detection Included) - Lead Wire Not Included
WLMP	Water Leak Puck / Probe for connection to Merlin WCM
CWMU	Cold Water Meter with Pulsed Output - Various Types Available 1/2" - 12"
HWMU	Hot Water Meter with Pulsed Output - Various Types Available 1/2" - 12"

Gas, Air & Water Controls For Life & Property Safety

Fuel Leak Detection

Contain Risks. Conserve Resources.

Your Partner in Fuel Leak Detection Solutions.

Regulations governing fuel leak detection across the Middle East are focused on safety, environmental protection, and operational continuity in commercial and industrial facilities. In the United Arab Emirates (UAE), including Dubai and Abu Dhabi, authorities like the Dubai Municipality and the Abu Dhabi Department of Energy mandate fuel leak detection systems in areas such as refineries, storage tanks, and transportation hubs. These standards aim to prevent environmental contamination and reduce fire hazards, safeguarding both public safety and the UAE's environmental goals.

Similarly, in Saudi Arabia, the Saudi Standards, Metrology and Quality Organization (SASO) and local building codes require the installation of fuel leak detection systems in fuel storage and handling facilities. This proactive approach supports early leak detection, enabling rapid response to potential incidents and minimizing risks to infrastructure.

In Qatar, the Ministry of Municipality and Environment (MME), following the Qatar Construction Specifications (QCS), requires that fuel leak detection be implemented in commercial and industrial buildings. These measures reduce environmental impact, support sustainable practices, and ensure safe, efficient operations aligned with Qatar's sustainability commitments.

Across the Middle East, compliance with these regulations promotes safe, sustainable, and resource-conscious operations, benefiting property owners, operators, and the broader community by reducing risks and preserving vital resources.

FLM - Fuel Leak Monitor

FUEL LEAK MONITOR

Mute
Reset

○ Status
● Fuel On
● Fault
■ Alarm

UKCA

FLM Controller Key Features:

• 24V AC/DC or 110-240V AC powered
• LED status indicator
• Volt free relay
• In-built audible alarm
• Solenoid valve isolation
• Used with FLM sensing cables
• Connectors & clips included as standard
• Designed & manufactured in the UK

FLM Fuel Leak Cable Key Features:

• Hydrocarbon liquid leak monitoring
• Quick-connect fittings, plug-and-play
  installation for convenience
• Eco-friendly materials, precise leak detection
• Spiral braided structure reduces interference
  and lowers false alarms
• Used with the Merlin FLM fuel leak monitor.

Product Overview:

The Merlin FLM Fuel Leak Detection System by S&S Middle East is designed for continuous hydrocarbon leak monitoring in high-risk areas across the Middle East. Ideal for fuel storage tanks, refineries, fleets, and power plants, the Merlin FLM ensures reliable leak detection with standalone or networked functionality. Featuring an LED status display, it provides real-time alerts, activating the red LED, sounding an alarm, and isolating fuel sources for rapid response. Manual mute and reset buttons enhance operational continuity and maintenance, ensuring safety in fuel handling.

The system supports 230V and 24V power options, interfaces with BMS/BAS systems, and includes status LEDs for fault monitoring, making it a dependable solution for fuel facilities.

The Merlin FLMC Fuel Leak Detection Cable is a single-use hydrocarbon detector that complements the FLM system, responding only to hydrocarbons without water interference. Built for durability, it contains two sensor wires, an alarm wire, and a continuity wire within a conductive polymer sheath and fluoropolymer braid. The cable immediately triggers an alarm upon exposure to hydrocarbons and must be replaced, offering quick-connect, plug-and-play installation.

Applications:

Power Stations

Academic Buildings

Public Buildings

Hospitals / Medical Buildings

Commercial Buildings

Partcodes:

Product Name	Description
FLM	Single Zone Fuel Leak Detection Controller
FLMC1	1 metre 2 Core Fuel Leak Cable (Including 2m Lead Wire)
FLMC5	5 metre 2 Core Fuel Leak Cable (Including 2m Lead Wire)
FLMC10	10 metre 2 Core Fuel Leak Cable (Including 2m Lead Wire)
FLMC15	15 metre 2 Core Fuel Leak Cable (Including 2m Lead Wire)
FLMC20	20 metre 2 Core Fuel Leak Cable (Including 2m Lead Wire)
FLMC**	Custom length 2 Core Fuel Leak Cable (Including 2m Lead Wire)

Gas, Air & Water Controls For Life & Property Safety

Solenoid Valves

Controlling flow, safeguarding systems.
Solenoid valves for gas & water.

Introducing our high-performance gas & water solenoid valves, designed specifically for commercial, residential and light industrial properties in the Middle East. These valves ensure safety, reliability, and efficiency across various applications such as boiler rooms, schools, and commercial kitchens. Engineered to meet the region's demanding environments, our solenoid valves provide precise control over gas and water flow, which is crucial for maintaining optimal operating conditions and enhancing system efficiency.

Our valves have achieved global recognition, with tens of thousands sold through the UK, Europe, Oceania, the United States, and Canada. Our gas valves comply with EN-161 standards and are KIWA tested and certified for sale in the UK, EU, Australia, and New Zealand. Additionally, we offer a range of UL and ULC approved products for the USA and Canada.

Similarly, our water valves are tested and certified for the UK, EU, Australia, and New Zealand, and are WRAS approved for potable drinking water, ensuring the highest standards of safety and quality.

The use of solenoid valves is essential in these settings to prevent leaks, reduce the risk of fire and water damage, and ensure the safe operation of heating and cooling systems. Whether managing water supply in school facilities or controlling gas flow in commercial kitchens, our solenoid valves offer reliable and efficient solutions tailored for the Middle East market.

With global stocking and short delivery times, we ensure that our products are readily available to meet urgent demands.

Solenoid Valves **Full Range**

Gas & Water Solenoid Valves

Gas Solenoid Key Features:

- 230V powered
- Normally closed, powered open
- 1/2" - 2" screwed type available
- 2+1/2" - 6" flanged type available
- Power LED indicator on all valves
- NPT version available (UL listed)

Water Solenoid Key Features:

- 24VAC, 24VDC or 240VAC versions
- Normally closed or normally open
- 1/2" - 2" screwed type available
- Lead free brass for potable water
- NPT version available (UL listed)

Product Overview:

Discover the S&S range of gas & water solenoid valves, designed for commercial, residential & light industrial applications, with tens of thousands of installations globally.
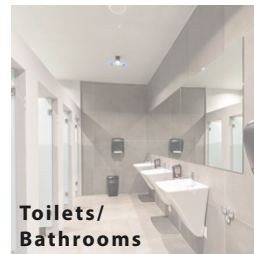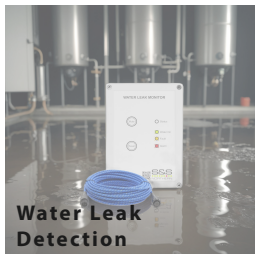
Our gas solenoid valves are 230V powered, normally closed, auto-reset and will most commonly be powered from our Merlin gas safety systems. In the event of an emergency, the Merlin gas safety system will take power away from the gas solenoid valve causing it to slam shut, and when power is re-instated this will then allow gas to flow through the pipework. We have a full range of sizes available, both screwed and flanged, and can offer specialist gas valves on request.

Our water solenoid valves are most commonly found in schools, toilets, water leak detection systems & other areas that require electronic water control.

Our water solenoid valves are available in normally closed or normally open, autoreset and either 24VAC, 24VDC or 230VAC powered so they can be controlled by the Merlin gas safety systems.

All water solenoid valves are WRAS approved for potable water and have global recognition with CE and UKCA. UL listed type also available.

Applications:

Water Leak Detection | **Academic Buildings** | **Public Buildings** | **Toilets/ Bathrooms** | **Commercial Buildings**

Partcodes:

Product Name	Description
GSW - **/230AC	Goldseal Water Solenoid Valve - WRAS Approved - EDPM Brass - 230V (Replace ** With 13/20/25/32/40/50 For Size)
GSW - **/24AC	Goldseal Water Solenoid Valve - WRAS Approved - EDPM Brass - 24VAC (Replace ** With 13/20/25/32/40/50 For Size)
GSW - **/24DC	Goldseal Water Solenoid Valve - WRAS Approved - EDPM Brass - 24VDC (Replace ** With 13/20/25/32/40/50 For Size)
GSWNO - **/230AC	Goldseal Water Solenoid Valve - WRAS Approved - EDPM Brass - 230V (Replace ** With 13/20/25/32/40/50 For Size)
GSWNO - **/24AC	Goldseal Water Solenoid Valve - WRAS Approved - EDPM Brass - 24VAC (Replace ** With 13/20/25/32/40/50 For Size)
GSWNO - **/24DC	Goldseal Water Solenoid Valve - WRAS Approved - EDPM Brass - 24VDC (Replace ** With 13/20/25/32/40/50 For Size)
GSV**G	Normally Closed Screwed Gas Solenoid Valve 230V (Replace ** With 15/20/25/32/40/50 For Size)
GSV**G(F)	Normally Closed Flanged Gas Solenoid Valve 230V (Replace ** With 65/80/100/150 For Size)

Gas, Air & Water Controls For Life & Property Safety
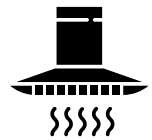
Commercial Kitchen Energy Saving Controls
Reduce Carbon & HVAC Load.
Save Energy, Improve Kitchen Comfort.

In the Middle East, commercial kitchen environments face unique challenges due to high temperatures and humidity levels, making efficient ventilation systems crucial for maintaining safe and comfortable working conditions. Traditional ventilation systems often run at full capacity to combat these harsh conditions, leading to significant energy consumption and associated costs. Demand Controlled Kitchen Ventilation (DCKV) systems, such as the Merlin 3000S from S&S Middle East offer a smart and efficient alternative by dynamically adjusting fan speeds based on real-time kitchen activity.

The extreme climate in the Middle East necessitates robust ventilation solutions. High ambient temperatures and humidity levels can exacerbate the heat generated by cooking appliances, creating uncomfortable and potentially hazardous working conditions. Constant full-speed operation of ventilation fans is a common practice to mitigate these effects, but it is not energy efficient. DCKV systems provide a solution by using advanced sensors to monitor kitchen conditions and adjust ventilation rates.

The Merlin 3000S by S&S Middle East is a state-of-the-art DCKV system designed to optimize energy usage in commercial kitchens. It features various sensors, including duct temperature, optical, carbon dioxide, and carbon monoxide sensors, to monitor gas usage and kitchen activity. By automatically adjusting the ventilation fans based on these readings, the Merlin 3000S ensures fans operate only as needed, significantly reducing energy consumption. One controller can manage up to two hoods, making it versatile for various kitchen configurations. Additionally, the system is compatible with both gas and electric kitchen appliances.

Energy savings from the Merlin 3000S are substantial. Approved by the Energy Technology List (ETL) in the UK, the Merlin 3000S has been supplied to hundreds of restaurant chains across the UK, demonstrating its reliability and effectiveness. A recent case study showed an average load reduction of over 39.1% over a 12-month period, translating to significant cost savings. The average installed return on investment (ROI) for the Merlin 3000S is 1-2 years, making it a cost-effective solution for commercial kitchens in the Middle East looking to reduce energy usage and operational costs.

Merlin 3000S - Demand Controlled Commercial Kitchen Ventilation System

Key Features:

• One controlled monitors up to two hoods
• Works with gas or electric kitchen appliances
• ROI within 1-2 years based on climate
• Controls ventilation based on kitchen useage through sensors such as temperature probes, optical sensors, CO2 & CO detectors
• Based on case study, average 39.1% annaul energy reduction
• Designed & manufactured in the UK

• Based on case study, average 39.1% annaul energy reduction
• In-built visual & audible alarm notification
• Strong anti-interference circuit boards and RoHS compliant
• Boost fan button for fan override
• Key switch for on/off activation
• Optional gas pressure leak detection (gas pressure sensor supplied separately)
• Front mounted emergency shut off buttons can shutdown gas supplies and/or electric appliances
• Approved product on Energy Technology List (UK)

Product Overview:

The Merlin 3000S, crafted by S&S Middle East, is a state-of-the-art Demand Controlled Kitchen Ventilation (DCKV) system designed to optimize energy efficiency in commercial kitchens. Made in the UK, it efficiently manages up to two hoods and seamlessly integrates with both gas and electric kitchen appliances. Using advanced sensors such as temperature probes, optical sensors, CO2 detectors, and CO detectors, the system dynamically adjusts ventilation based on real-time kitchen usage, ensuring both energy savings and a safe working environment.

Equipped with strong anti-interference circuit boards and compliant with RoHS standards, the Merlin 3000S includes visual and audible alarms for immediate alerts, enhancing operational reliability. It features convenient controls like a boost fan button for manual fan override, a key switch for easy activation, and front-mounted emergency shut-off buttons for quick response to emergencies. Recognized on the UK's Energy Technology List (ETL), the system demonstrates an average annual energy reduction of 39.1%, promising a rapid return on investment typically within 1-2 years, making it an efficient choice for cost-conscious commercial kitchens in need of sustainable energy solutions.

Applications:

Commercial Kitchens

Academic Buildings

Public Buildings

Hospitals / Medical Buildings

Commercial Buildings

Partcodes:

Product Name	Description
Merlin 3000S	Energy Saving, Demand Control Ventilation Interlock System
Duct Temp Probe	Variable Duct Temp Probe (Wire Sold Seperately)
Duct Temp Probes - Wire - 10m	10M Wire to be used with Variable Duct Temp Probe
Optical Sensor - 15m	Optical Sensor & Reflector (15m) - (No Enclosure)
CO2 iS Detector	24V AC/DC Carbon Dioxide Detector, 0-10V output, 2x VFC Switch, TFT Screen
CO iS Detector	24V AC/DC Carbon Monoxide Detector, 0-10V output, 2x VFC Switch, TFT Screen
Emergency Shut Off Button (M)	Mushroom Type Emergency Stop, Push To Activate, Twist-Reset
Emergency Shut Off Button (K)	Yellow Shrouded Type, Push To Activate, Key-Reset
GSV**G (Screwed)	Normally Closed Screwed Gas Solenoid Valve 230V (Replace ** With 15/20/25/32/40/50 For Size)

Case Studies **Overview**

United Kingdom & Europe

LegoLand Windsor

Manchester United FC

Houses of Parliament

Mayfair

Natural History Museum

Box Park Wembley

Manchester Airport

Bramley Moore Everton FC

North America

This Old House TV Show

America's Test Kitchen

University of California

Wynn Casino, Boston

Oceania
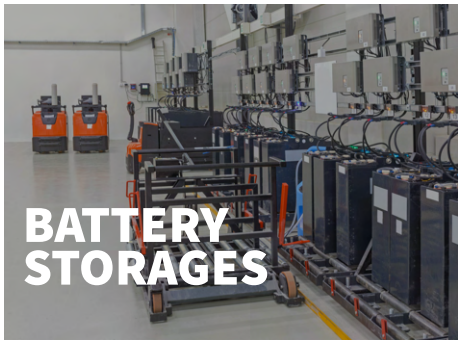

Whangārei Boys School

Double Tree Hilton Hotels

Flinders Street Railway Station

AAMI Park Stadium

BATTERY STORAGES

DATA CENTERS

MANUFACTURING

CAR PARKS

EDUCATIONAL BUILDINGS

RESIDENTIAL

COMMERCIAL BUILDINGS

HEALTHCARE

STADIUMS

COMMERCIAL KITCHENS

HOSPITALITY

TRANSPORTATION

Gas, Air & Water Controls For Life & Property Safety

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