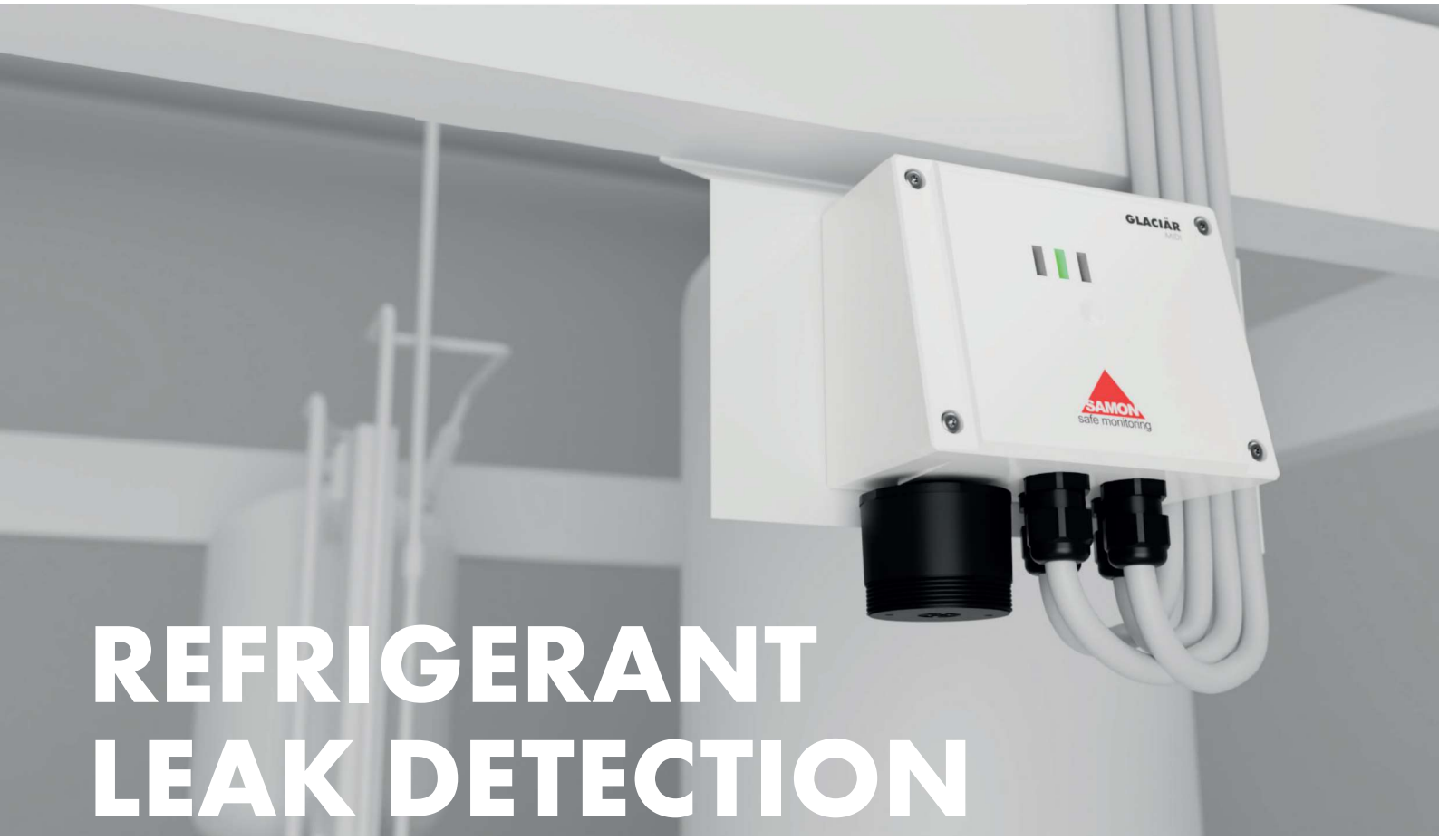
SAMON
safe monitoring



REFRIGERANT LEAK DETECTION

FOOD RETAIL & STORAGE

SIMPLY RELIABLE REFRIGERANT GAS DETECTORS

www.samon.se

KEEP PEOPLE SAFE

Refrigerant gases can be dangerous if they leak in sufficient quantity. Many are potentially explosive, toxic, or asphyxiant, presenting a danger to life and health. A core part of **SAMON's mission is to keep people safe** who are working in these dangerous environments, so at the end of the day they can go home to their families and friends.

For an example in a refrigeration system using CO_2 as a refrigerant, in a typical walk-in cold room with a volume of $25m^3$ and a rate of one air exchange per hour we can calculate that **a leak rate of 500g/hr will create an atmosphere containing 40,793ppm of CO_2 in just 250 seconds.**

That surpasses the level of 40,000ppm at which CO_2 presents an **immediate danger to life and health.**

The use of refrigerant gas detectors is a vital component in ensuring that dangerous leaks are identified, and people are alerted to the danger to ensure they stay safe.

PROTECT THE ENVIRONMENT

In recent years, awareness has increased of the high global warming potential of refrigerants now in use. **SAMON** helps the industry to reduce and prevent leaks of these greenhouse gases by using refrigerant gas detection solutions where the risks are highest.

The direct identification of refrigerant leaks at an early stage means that leaking assets can be isolated to prevent the release of harmful gases into the environment, and technicians can quickly be called out to repair the system.

GLACIÄR

SENSOR SELECTION

- All sensor types compatible with the **GLACIÄR MIDI** detector platform
- HFC/HFO blends detected via just two broad-band sensor variants
- CO_2 detection via infra-red sensor
- Electrochemical sensors for NH_3 detection
- R290 (propane) & hydrocarbon sensor

EASY INSTALLATION

- Comes ready to install with standard configuration
- Multiple cable glands located for easy access to power connections & output terminals
- Pluggable screw terminals for simple installation on site
- IP67-rated enclosure & -40°C - + 50°C operating range suitable for all refrigeration environments
- Built-in & remote sensor options

PREVENT FOOD SPOILAGE

Refrigeration systems lose efficiency when they lose refrigerant through leakage. **A refrigerant leak will cause the refrigeration system to fail** if it is left unmitigated, because there will be no refrigerant left in it to enable the cooling process.

Food retailers can suffer losses when refrigeration systems fail because the lack of effective cooling means **valuable produce is lost** due it becoming unsafe to remain in the food chain. **Refrigerant leak detection can help avoid significant financial losses and the environmental impact of food waste** resulting from failed cooling. Identification of a leak means that cooling system repairs can be initiated, and produce can be moved to a different storage location before spoilage can occur.

REGULATORY COMPLIANCE

Depending on the gas used, the dangers presented by leaking refrigerant can include asphyxiation, oxygen depletion, flammability and toxicity. Measures to mitigate these risks are defined within **refrigeration safety standards.**

In Europe, the standard to follow is EN 378, Refrigerating Systems and Heat Pumps – Safety and Environmental Requirements. Of the four parts of EN 378, the one detailing the **regulatory requirements for refrigerant gas detection** is EN 378-3:2016+A1:2020, Installation Site and Personal Protection.

MIDI

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MULTIPLE CONFIGURABLE OUTPUTS

- Alarm indication via relay contacts for high- and low-alarm levels
- Interface to control systems via Modbus RTU over RS485 & selectable analogue output range
- Visual health-check via high-intensity status LEDs
- Selectable fault relay

INTELLIGENT SERVICE & MAINTENANCE

- Service counter tells you when service is needed
- Bluetooth® connectivity to app for configuration & calibration (Android™ & iOS)
- Analogue configuration via service-wheel & magnetic switch
- Pre-calibrated sensor module replacements
- Sensor lifetime counter

ABOUT SAMON.

At **SAMON**, our focus is on **protecting the environment, protecting people, and protecting our planet**. We work hard to create real benefits for society by operating sustainably and safely ourselves, and by helping our customers to do the same.

A stable climate, rich in biodiversity, is essential for future generations to thrive. Sustaining that is the biggest challenge of our time, and we believe that we must work hard every day to make planet Earth a better place. Our job is to support our partners in the refrigeration industry to do that.

Experts in Refrigerant Gas Detection

SAMON was founded in Sweden in 1990. For over 30 years, we have been continually working to understand the developing needs of the refrigeration industry so that **we can provide what our customers need**. The market does not stand still. From changes in the types of refrigerants in use, to advances in control system technology - as the industry evolves, so do we.

OUR OFFICES.

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