



# Sabroe Integrated Standard Automation Concept (ISAC)

Monitoring and control interface configuration system for industrial refrigeration installations

ISAC is unique Sabroe software that provides a toolbox for designing and configuring refrigeration control and monitoring setups of virtually all kinds. It provides an effective way to integrate SCADA graphics with PLC functionality to ensure effective, reliable monitoring and control of both large and small industrial refrigeration installations.

ISAC modules provide standardised, pre-vetted solutions for almost any installation, based on consistent, industry-standard data inputs and outputs that ensure seamless, glitch-free exchanges of data between many different kinds of equipment, regardless of capacity, configuration or manufacturer.



Advantages	Benefits
Extensive Sabroe practical experience is embedded in all ISAC modules	Ensures rapid, cost-effective application of best practice
All modules are designed as modular building blocks and based on standardised interfaces and data exchange configurations	Minimises the time required for design, planning, configuration and service
Each module designed and tested individually to eliminate technical incompatibilities	Greater safety, greater reliability and lower operating costs
Supports a wide range of standard configurations, ranging from single touch screens to multiple workstations	Easy to scale to the exact functionality required
Based on standardised components with a very high degree of documentation, for maximum consistency and efficiency	High saving potential on commissioning, running in and system optimisation, as well as on energy consumption

## Where and how ISAC can be used

The Sabroe ISAC system is easily scalable to meet a broad spectrum of refrigeration plant configurations. It provides advanced, flexible control functions with intuitive user features designed for the best match with the performance and technical requirements of each installation.

The ISAC system toolbox is designed to enable controls application engineers with only basic PLC and SCADA programming skills to build advanced, structured, and error-free program applications.

Once engineers are familiar with the toolbox and how to use it, ISAC makes it possible to build applications much faster than with conventional programming methods.

Extensive field and factory testing of the ISAC toolbox ensures error-free modules and paves the way to smooth, effective commissioning without the usual subsequent adjustments and fault corrections.

Access to the ISAC toolbox requires membership of the ISAC

user community, and the ISAC community administrators provide new members with free training courses.

ISAC is easily applicable to both new and existing refrigeration setups, including extension schemes and retrofits of complete refrigeration plants.

## Standard features

- Defrost queue, automatic temperature-controlled defrost time, multiple room temperature control setups, etc.
- Automatic equalisation of running hours in installations with multiple pumps and fans
- Differential pressure control of NH<sub>3</sub> pumps
- Manual control possibility of all motors, valves and other actuators
- Hour counters for all motors
- Historical trending
- Alarm and shutdown monitoring

ISAC is based on – and completely compatible with – industry-standard Siemens S7 hardware and GE IFIX Proficy SCADA software.

