

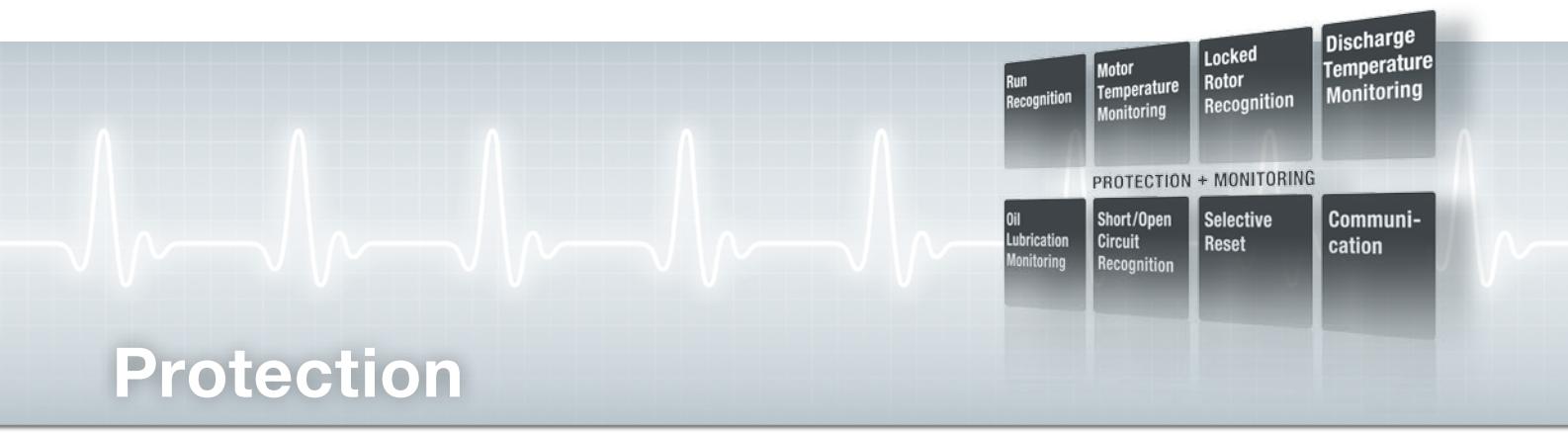
KRIWAN Diagnosis System



The next Generation of Compressor Protection

RECIPROCATING, SCREW AND
SCROLL COMPRESSORS





Protection

The basis for comprehensive diagnosis: precise and secure protection

The KRIWAN Diagnosis System is a milestone in the development of compressor protectors. The system offers communication capabilities for comprehensive and detailed diagnosis and analysis in addition to proven monitoring and protection features.

Accurate measurements are a prerequisite for the efficient diagnosis of your system's operation. KRIWAN diagnosis motor protectors reliably provide relevant information about any compressor. They continuously monitor parameters such as motor temperature, current consumption, phase status, oil (pressure, level, temperature) and discharge gas temperature. Possible shorts and discontinuities are detected and saved to memory for later evaluation. Separate inputs enable selective detection, evaluation, and responses, for targeted intervention at any time.

Take advantage of the excellent KRIWAN diagnosis control and protection system for your refrigeration units.

Benefits at a glance

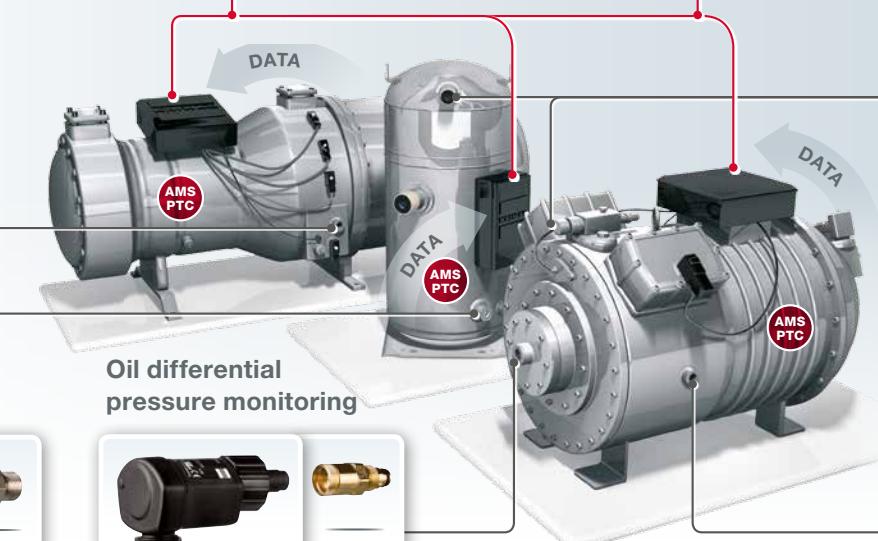
- Storage of all relevant compressor data
- Comprehensive functionality:
Blockage detection; individual delays; current measurement; protection against abnormal operation
- Early fault detection
- Available for nearly any compressor

Compressor protection



Interlinking multiple pistons, screw, or scroll compressors

Motor protection



Discharge gas monitoring



Oil level monitoring

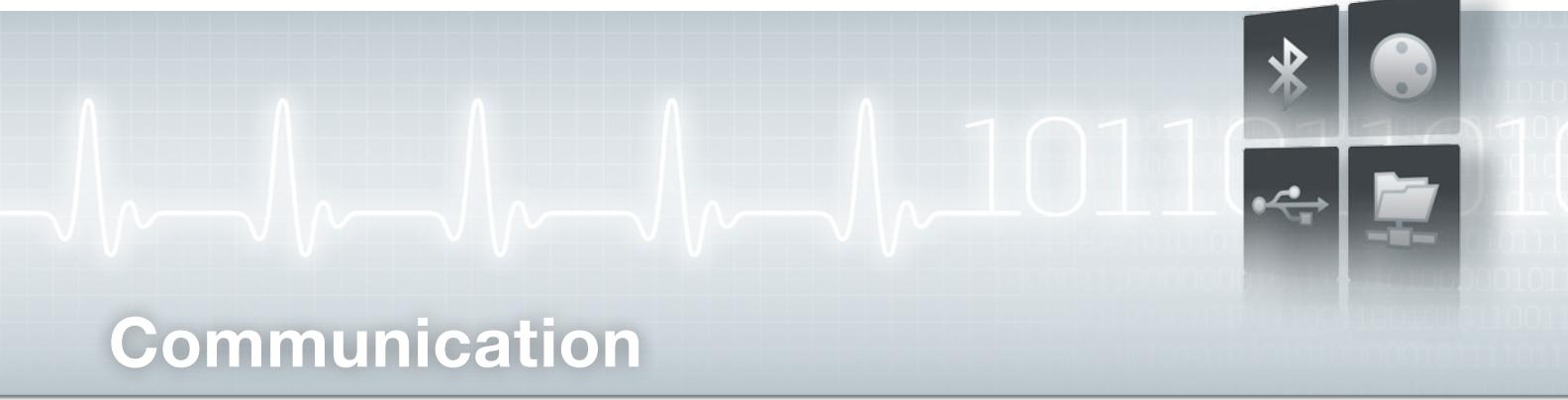


Oil differential pressure monitoring



Oil level control





Communication

Easy access to diagnosis data: User-friendly interfaces and communication

Communication interfaces turn the KRIWAN Diagnosis System into a comprehensive source of data about a refrigeration system. The well-designed and standardized system is easy to use:

On site, data can be accessed directly at the compressor via USB or Bluetooth using a smartphone, a tablet, or a laptop.

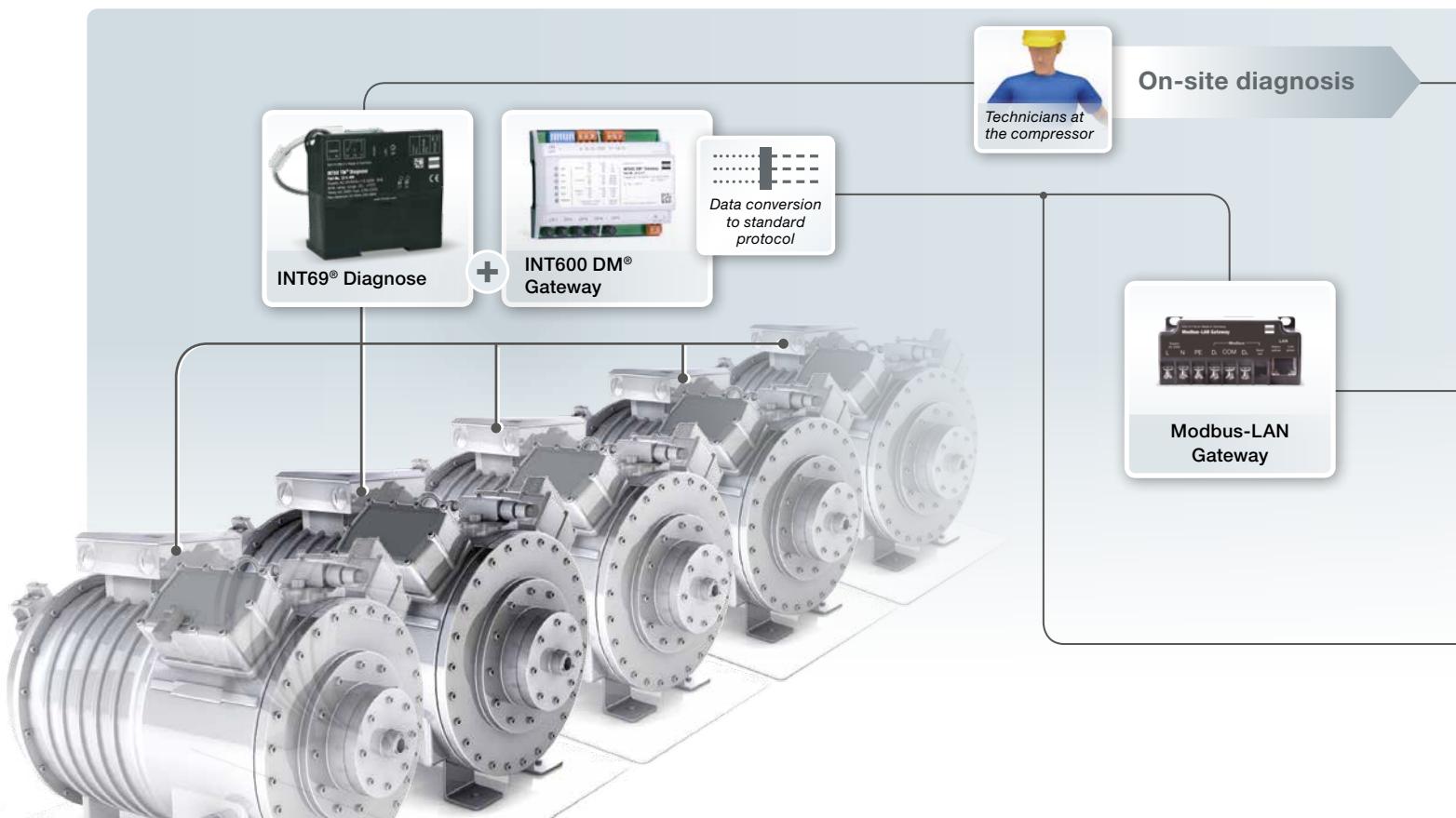
For permanent integration of all compressors into the system controller, the INT600 DM® Gateway provides a Modbus interface.

The Modbus-LAN Gateway periodically sends the data to a server for web-based diagnosis and analysis. From there, they can be accessed from any Internet-capable device via a web portal.

Of course, both devices can be easily refitted at any time.

Benefits at a glance

- Standardized interfaces & protocols
- Easy integration into control systems
- Available worldwide via Internet
- Easy refitting



Diagnosis

For clear analysis: Diagnosis software with a well-structured visualization

KRIWAN has an innovative solution for visualizing operation and diagnosis data:

The INTelligence web portal displays all parameters in a clear and organized manner, for easy interpretation of, for example, switch cycles, runtime, or temperature. The intuitive comparison features enable the instant comparison of several compressors or systems. The collected error messages provide more detailed insights into the condition of the system. Significant changes due to wear, changed operating conditions, or other causes can be detected in time by observing trends based on documented long-term data.

The KRIWAN Diagnosis System can be integrated into the system controller via Modbus. The evaluation is implemented in the controller, where it enables advanced compressor diagnosis for power management and system optimization, as well as detailed fault analysis.

INTspector diagnosis app

- Easy, intuitive operation
- Maximum flexibility, minimum technical requirements
- Quick diagnosis

INTelligence web portal

- Easy, intuitive operation
- Web-based, compatible with any device with an Internet connection without installation
- Long-term data for compressors and systems
- Easy comparison across time periods and locations
- Visualized, interactive data
- SMS alert in case of a fault



Diagnosis app INTspector

Direct on-site diagnosis



Free download



DATA SYNCHRONIZATION



Diagnosis web portal INTelligence

Worldwide diagnosis

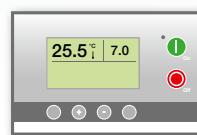


Alarm function



System control

Integration into an existing system



Controller



Quick, efficient, proactive, sustainable: a diagnosis system that thinks ahead

Technical expertise, experience and outstanding product quality have made

KRIWAN a leading manufacturer in the refrigeration and AC market for almost 50 years.

All devices are continuously monitored during production and subjected to extremely rigorous testing. This helps to prevent failures in the systems and makes sure that humans and machinery are always safe.

Building on a long tradition in compressor protection, KRIWAN has set a course for the future with its Diagnosis System. Thanks to precise, reliable measurements and analysis, errors and their root causes are instantly detected.

The advanced KRIWAN diagnosis technology provides direct access to compressor data and a comprehensive analysis of system parameters. This turns a compressor into a source of data about your refrigeration system.

Quick – fault detection

- Efficient troubleshooting
- Root cause and fault time detection
- Early detection of out-of-range errors (e.g. refrigerant low, condenser pollution, faulty defrosting of key components)

Efficient – fault correction

- App interface
- Error memory

Proactive – error prevention

- Focused maintenance
- Evaluation of compressor load

Sustainable – longer system service life, reduced environmental impact

- Reduced CO₂ emissions through minimized power consumption
- Fewer pollutants

The KRIWAN Diagnosis System

- reduces operating and maintenance cost
- simplifies system management
- reduces resource use (fewer sensors and less wiring)
- improves personnel scheduling and reduces manpower requirements

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