

## CoreSense™ Technology For Refrigeration Ensuring Best Performance Over Full Life Time

With the new Copeland Scroll™ K5 (Summit) series for medium and low temperature applications Emerson Climate Technologies launches its innovative CoreSense technology for scroll compressors.

Offered as an option these compressors can be equipped with CoreSense Diagnostics adding intelligent electronics (to a refrigeration system) that goes beyond compressor protection. By assisting in system diagnosis and optimization service, engineers are provided with detailed information at the right time. System related problems can be diagnosed faster or even before they occur. Benefits for supermarket operators will be an increased system uptime as well as reduced food losses and maintenance costs.

### Benefits Throughout the Chain

Emerson CoreSense comes with a great set of features that offer benefits to refrigeration system manufacturers, service engineers and operators. It is an opportunity for consultants to help their clients to be at the forefront of technology.

### Helping Manufacturers to Keep Applied System Costs Under Control

CoreSense Diagnostics integrates many of the functionalities of modern refrigeration systems directly into the compressor. Protection and sensing devices come pre-installed with the compressor.

Being able to manage directly the system control via the integrated Modbus® protocol, the need for installing sensor cables is greatly reduced when integrating Emerson CoreSense to a system. This accelerates the system manufacturing and eliminates potential design failures.



*Scroll Compressor with optional CoreSense Diagnostics*

Emerson CoreSense Diagnostics measures compressor internal data right at the heart of the compressor. It maintains a data and alarm history together with compressor asset information such as model and serial number. Information is maintained in onboard EEPROM memory and can be downloaded on-site or remotely.

The integrated compressor display provides status information through LED color and flash codes. With CoreSense Diagnostics the compressor turns into a maintenance engineer's assistant.



## Freeing End User's Mind To Focus On The Strategic Parts Of Their Business

Hard to believe that your operation would not benefit from reduced installed system cost, predictive maintenance or a better understanding of the system's power consumption.

With Emerson CoreSense Diagnostics, you enable the team that builds, maintains and operates the refrigeration system to leverage on the best available compressor technology.

### Benefits

- Facilitate predictive maintenance & advanced diagnostics
- Reduce applied system costs
- Manage on-site compressor data
- Reduce maintenance costs
- Increase system uptime / reduce food loss

### Functionality

- Current sensing based diagnostics
- Discharge temperature protection
- Liquid injection control
- Scroll Digital control
- Motor protection
- Asset information
- Compressor proofing
- LED visual indication of alerts
- Modbus communication

### Technical Specification

- Power supply 230V AC
- Front end: Multi-color LEDs
- Communication protocol (Modbus®RTU)
- Bus to system controller: RS 485, 3-wire, (+,GND)
- Discharge temperature sensor
- Current sensor
- EEPROM memory
- Alarm reset button



*For Scroll compressors with CoreSense™ technology*

*Supported by Dixell iPro System Controller*

*Communication with third party Modbus® system controller*

For more details, see [www.emersonclimate.eu](http://www.emersonclimate.eu)

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