

eRCM Express™

Powered by eRCM™ Modeling Software

Compressor Monitoring & Safety Solution

- Cost-effective, flat-rate software solution designed for new and retrofit applications.
- Software is directly embedded into the DE/ACM-4000 system, eliminating the need for additional hardware. Moderately priced upgrade kits are available for existing DE/ACM-4000 installations.
- Expanded value and advanced safety monitoring capability for DE/ACM-4000 systems.
- Ideal for midstream and upstream compression units, offering a practical solution for a wide range of compression applications where efficiency and value are important.
- Built on performance models developed and validated by ACI Services, Inc.®, the system incorporates OEM-based algorithms, inclusive of those by Ariel Corporation®, to deliver advanced functionality.

ALTRONIC

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eRCM Express Features

Valve Condition Monitoring¹

Discharge conditions and how they affect unit flow and individual cylinders are constantly monitored to enable preventative maintenance to system valves. The system will identify when/if the unit needs to be taken offline for repair/replacement of valves and rings in addition to individual cylinders that need reviewed. Detecting failed valves early is critical, as valve failure can result in immediate rod load or pin non reversal.

Liquids Prevention

Provides minimum suction stage 1 gas temperature, minimum inter cooler gas temperatures, and minimum after cooler gas temperatures to prevent liquid formation. Selectable to prevent hydrocarbon liquids, hydrates, and/or liquid water.

Safe Neighborhood Check

Identifies safety issues near the current operating setpoints as suction and discharge pressures are expanded. Will alert the operator of low risk, moderate risk, or high risk of shutdown over the near future.

Shutdown Avoidance

System will calculate and consider changes to suction pressure, speed, and/or recycle pressure, based on shutdown avoidance options that are selectable by the operator, to prevent the system from shutting down. Suggested operating setpoints will be returned based on the shutdown avoidance options selected.

Advanced Safety Monitoring

System will monitor several potential critical issues and immediately shut the unit down if any are detected. This includes rod load, pin load, pin non-reversal, gas thermodynamics issues, invalid inputs, and high discharge pressures.

Min/Max Operating Setting

Min and Max operating setpoints for suction pressure, discharge pressure, and speed will be provided for the current load step to assist in preventing the system from running in an unsafe condition.

Actual vs Theoretical Monitoring²

The system will constantly compare discharge pressure, discharge temperature, unit power, and unit flow actual values versus their theoretical (modeled) values. If the difference is outside of acceptable ranges, the operator will need to review other data to determine root cause and then proceed with system modifications.

For ordering information, contact your local distributor and/or Altronic Sales at sales@altronic-llc.com.



¹ Altronic recommends this data be trended and reviewed regularly to assist with valve preventative maintenance.

² Acceptable delta ranges to be determined and configured by the operator. ACI and Altronic recommend setting alarms for values off by over 10% and shutting down for values off by over 20%.