



OUR INNOVATION MOVES

# Frequently Asked Questions

ABOUT THE SMART CONDITION MONITORING SYSTEM



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# Smart Condition Monitoring System for Falk A+Plus, Y-Unit, and V-Class Gear Drives **Frequently Asked Questions**

To help you understand the features and benefits of the Smart Condition Monitoring System for Falk A+Plus, Y-Unit, and V-Class Gear Drives, read our frequently asked questions (FAQs) and their answers below. Don't see your questions? Contact your Rexnord Account Executive or call the Rexnord Support team at 866-REXNORD (866-739-6673).

## Questions

## Answers

### INSTALLATION

<b>How are sensors calibrated?</b>	The sensors are factory calibrated and do not require additional field calibration.
<b>Can the Smart Condition Monitoring System be installed during plant downtime?</b>	Yes. The drive will need to be clean, cool and free of oil before Rexnord personnel arrive on site. Please contact Rexnord Customer Care at 1-866-REXNORD (866-739-6673) or fill out the request form located <a href="#">here</a> to start the Smart Condition Monitoring System field upgrade process.
<b>How long does it take to install?</b>	Rexnord installation technicians are able to install the field upgrade for A+Plus, Y-Unit, and V-Class Gear Drives in eight hours or less. Please contact Rexnord Customer Care at 1-866-REXNORD (866-739-6673) or fill out the request form located <a href="#">here</a> to start the Smart Condition Monitoring System field upgrade process.
<b>Is any drilling required?</b>	Yes, minor drilling will be required to mount sensors to the gear drive. Drilling will not occur on any surface that will be in contact with the oil to prevent the possibility of metal shavings falling into the gear drive housing.
<b>Why aren't we drilling to the bearing race for A+Plus, Y-Unit, and V-Class Gear Drives?</b>	Rexnord wanted to develop a solution that can be easily field installed to reach the greatest amount of customers, while offering a superior solution.
<b>What is needed to hook up the Smart Condition Monitoring System?</b>	110-220 VAC, 50/60 HZ, ½ Amp for power and AT&T cellular connection or wired Ethernet.
<b>How are the A+Plus, Y-Unit, and V-Class Gear Drives set up?</b>	A Rexnord Industrial Services technician will perform the hardware and sensor installation on site and verify that the system is working correctly before they leave.  The Rexnord Connect Portal access instructions will be sent to the site contact prior to commissioning.

### COMMUNICATIONS

<b>How does the Edge Device communicate to the cloud?</b>	The Edge Device communicates to the cloud (optional) via ethernet or cellular connectivity.
<b>What PLCs does the Edge Device work with?</b>	The Edge Device supports PROFINET®, Modbus TCP and EtherNet/IP™ communication protocols, which covers major manufacturers like Allen-Bradley and Siemens.
<b>Can the Edge Device communicate directly to a phone?</b>	Yes, but only by logging into the portal or through emails generated from the portal.
<b>What determines the state and light color of the indicator light?</b>	Utilizing years of gear drive design and application knowledge, Rexnord has developed proprietary algorithms to set the correct sensor limit levels for each gear drive. These limits trigger three possible conditions of the indicator light: 1) Green – everything is operating within acceptable limits; 2) Yellow – one or more conditions exist that require attention; 3) Red – one or more conditions exist that indicate potential damage or overall failure. It is highly recommended that operations stop immediately during a red condition to avoid any unexpected or unplanned downtime.
<b>When is vibration notified?</b>	The drive vibration reading will be presented in a 0-100 scale. If the system detects a problem (~80% vibration) a yellow light will be triggered, and the likely source of the vibration will be shown on the portal. Once the vibration has reached 100% a red light will be triggered and again the likely source of the vibration will be shown on the portal.

## Questions

## Answers

Is there a way to change the temperature setting to Celsius instead of Fahrenheit?	Yes. This setting is under the user settings in the Rexnord Connect Portal.
How long is data stored?	Our database will store the collected application data for 24 months.
<b>PERFORMANCE</b>	
What data is reported on?	The Smart Condition Monitoring System reports the health issues associated with your drive. See the Operations and Owner's Manual for more information.
Can the Smart Condition Monitoring System shut down equipment on an alarm?	The Smart Condition Monitoring System will provide data that a PLC can use to make decisions. It is not designed to shut down any process equipment by itself, it only provides information to the control system.
Can the Smart Condition Monitoring System be installed on a competitor's drive?	Rexnord sells two Universal Kits that can be used to monitor competitor's gear drives. Refer to the <a href="#">SS5-002</a> product sheet for more information.
How is vibration sensed on the drive?	We have strategically located vibration sensors that will monitor the gear drive for problematic vibration signatures and communicate problems via the Rexnord Connect Portal and an indicator light or through a PLC connection.
Does the Smart Condition Monitoring System detect low oil levels?	When the critical low oil sensor is installed, it will detect if the oil in a gearbox has reached a critically low level where further loss of oil will result in damage or catastrophic failure of the gear drive. This feature will also detect if there is no oil in a gearbox upon startup.
What is the oil tested for? Is this information available to production and operators?	<p>We monitor the oil for oxidation, water content, viscosity and oil temperature as these factors are the most common contributor to failure for lubricants in gear drives. These pieces of information are run through our proprietary algorithms to develop a composite oil quality level that is reported as a percentage left of oil life 0% - 100%. Based on the rate at which the oil life is declining we will also notify the end user that they have 30 days of oil life along with total number of operating hours remaining to help optimize oil life and maintenance costs.</p> <p>The oil quality measurement will always be available on the Rexnord Connect Portal, and also available to be read by a PLC for the Smart Condition Monitoring System.</p>
What can the sensors monitor?	Refer to the <a href="#">SS1-001 brochure</a> for exact sensor and application information.
<b>HARDWARE</b>	
Is one Edge Device needed per unit?	Yes, the Smart Condition Monitoring System will require one Edge Device and sensor package per drive.
<b>MAINTENANCE</b>	
How are QR codes read in harsh environments?	We have specifically chosen QR code materials that can withstand the harsh environments that our drives are installed in. Simply cleaning off the QR code should be sufficient, but we also include a second copy of the QR code along with the drive literature so that it can be scanned if the QR code on the gear drive is damaged or otherwise unreadable.
What lubricants are approved for use in Falk drives?	Our customers are required to use one of the lubricants from the approved lubricant list that can be found in the units Operations and Maintenance manual on Rexnord.com.
<b>SECURITY</b>	
How secure is the Smart Condition Monitoring System?	We at Rexnord take protecting our systems and our users' information seriously. Because of that, we utilize OAuth which is a strong secure authentication and authorization industry standard. No external parties can access without user permissions.
How secure is the Edge Device to the PLC?	Data from the Edge Device is only provided when requested by the PLC. The architecture does not allow access to the Edge Device applications or operating system and will not send any data to the PLC unless requested. The architecture prevents a path or capability for the cloud or Edge Device to disrupt or change the PLC control.

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#### WHY CHOOSE REXNORD?

When it comes to providing highly engineered products that improve productivity and efficiency for industrial applications worldwide, Rexnord is the most reliable in the industry. Commitment to customer satisfaction and superior value extend across every business function.

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The highest quality products are designed to help prevent equipment downtime and increase productivity and dependable operation.

#### Valuable Expertise

An extensive product offering is accompanied by global sales specialists, customer service and maintenance support teams, available anytime.

#### Solutions to Enhance Ease of Doing Business

Commitment to operational excellence ensures the right products at the right place at the right time.