

Alfa Laval Clariot™

Condition monitoring

Introduction

Are my pumps and other rotating equipment in the factory in good condition? Vibration analysis provides alerts for anomalies and detects changes in condition during production. Reduce unplanned downtime by capturing the critical data required for smart, condition-based maintenance decisions using condition monitoring.

Alfa Laval Clariot[™] condition monitoring system – Your reliable partner for securing uptime and efficiency of your pumps and other rotating equipment. Maximise the use of resources - both natural and human. Every drop counts.

Alfa Laval Clariot[™] provides complete clarity of the health of your connected equipment. Leveraging actionable data to steer your maintenance decisions in real time enhances process continuity and improves asset management.

Alfa Laval Clariot™ is an Al driven service for condition monitoring of rotating equipment. The Alfa Laval Clariot™ hardware is designed for all industries served by Alfa Laval, like food, personal care, and pharmaceuticals, amongst others. Alfa Laval is the world leader in these industries with long experience in the processes involved.

Applications

Alfa Laval Clariot™ is an advanced data analysis system platform, designed and developed for use on rotating equipment in hygienic industries.

Alfa Laval ClariotTM will notify and help you optimise your uptime and increase efficiency. Alfa Laval ClariotTM is uniquely designed for use on rotating equipment for the operational complexity of hygienic industry and therefore applicable in any other industry.

With this powerful tool, you can monitor your pumps and other equipment, identify and notify potential issues to prevent breakdowns.

Alfa Laval Clariot™ enables you to make data driven decisions, improving your bottom line.

Benefits

Alfa Laval Clariot™ provides an early warning, when changes in your production equipment's condition are detected.



Plan your service ahead of time and execute the maintenance outside production hours.

Predictive Maintenance with Condition-Based Services: Utilize the power of advanced monitoring features in Alfa Laval Clariot $^{\text{TM}}$.

Stay informed with real time information and events: Stay ahead of potential issues and ensure the smooth operation of your machinery.

Alfa Laval Clariot™ dashboard ensures you are always in the loop by keeping you updated on all important machine events, such as alarms, warnings, newly available reports, or messages – empowering you to make informed decisions and take action when needed.

- Continuous monitoring of production processes
- Advanced data analysis and visualisation
- Reduced downtime and improved efficiency
- Increased productivity and profitability
- Easy to use and integrate with your existing service setup

Standard design

The Alfa Laval Clariot™ condition monitoring system consists of 3 basic components:

- Clariot™ VX sensor
- Clariot[™] Connect gateway
- Clariot[™] Monitoring







Working principles

Continuous data collection: Alfa Laval Clariot™ Monitoring collects data from a variety of sources including sensors, machine learning, and manual inputs, ensuring that you have the most up-to-date information of your rotating machinery at all times.

Advanced data analysis: Our Al-driven platform uses advanced algorithms to analyze your data and identify trends, patterns, and anomalies. It automatically sends notifications, helping you make informed decisions and take action to optimise the health of your assets.

Customizable dashboards: Alfa Laval Clariot™ allows you to customise your dashboards to display the metrics that matter most to you.



Operational data

| Notification | mothode |
|--------------|---------|

With Alfa Laval Clariot™ condition monitoring system, you choose the notification method that best suits your needs:

| your needs: | |
|-----------------------|--|
| Email: | Receive notifications directly into your inbox |
| In-app notifications: | Stay informed with notifications within the Clariot™ App |
| SMS: | Receive SMS notifications for important messages or new reports |



Technical data

Clariot™ VX sensor

| General | |
|----------------|---|
| Plastic parts: | PA12 |
| Steel parts: | 1.4301 (AISI 304) |
| Battery: | 2 pcs Tadiran SL761/S 2/3 AA or similar |
| Battery life: | 2 years standard monitoring |
| Size: | Ø62 x 31 mm / Ø2.44 x 1.22 in |
| Weight: | 127 g / 0.270 lbs including two batteries |



| Environment | |
|----------------------|-------------------------------|
| Ambient temperature: | -10°C to 60°C / 14°F to 140°F |
| Protection class: | IP 69 |

| Operating parameters | |
|-------------------------------|------------------------------------|
| Sensing principle: | 3-axis vibration range |
| Mounting surface temperature: | From -10°C to 80°C / 14°F to 176°F |
| Bluetooth range: | 20 m / 65 ft line of sight |
| Mobile app: | Available for iOS and Android |

Compliance

Clariot™ VX sensor complies with all relevant legislation. See AlfaLaval.com for updated list.

Warranty

12 months from date of dispatch.

Clariot™ Connect gateway

| General | |
|----------------|---|
| Plastic parts: | PA12 |
| Steel parts: | 1.4301 (AISI 304), stainless |
| Size: | 137 x 89 x 43 mm / 5.39 x 3.50 x 1.69 in (L x H x W) |
| Weight: | 241 g / 0.53 lbs |



| Power requirements | |
|--------------------|------------------|
| Power supply: | 24 VDC, 7 - 15 W |

| Wireless Communication | |
|------------------------|---|
| Cellular data: | 4G LTE with global frequencies support SIM card |
| | included |
| Bluetooth Low Energy: | BLE 5.2 Host based |

| Environment | |
|-----------------------------------|-----------------------------|
| Operating temperature: | 0°C to 50°C / 32°F to 122°F |
| Protection class (water ingress): | IP65 |

| Operating parameters | | |
|----------------------|----------------------------|--|
| Surface temperature: | Up to 50°C / 122°F | |
| Cloud connection: | Cellular data | |
| Bluetooth range: | 20 m / 65 ft line of sight | |

Compliance

Clariot™ Connect gateway complies with all relevant legislation. See AlfaLaval.com for updated list.

Warranty

12 months from date of dispatch.

Clariot™ Monitoring

Clariot™ Monitoring is an Al driven, automated analytic service for vibration of rotating equipment and temperature data. Notifications can be accessed by PC or mobile device.

General

Contents of the package:

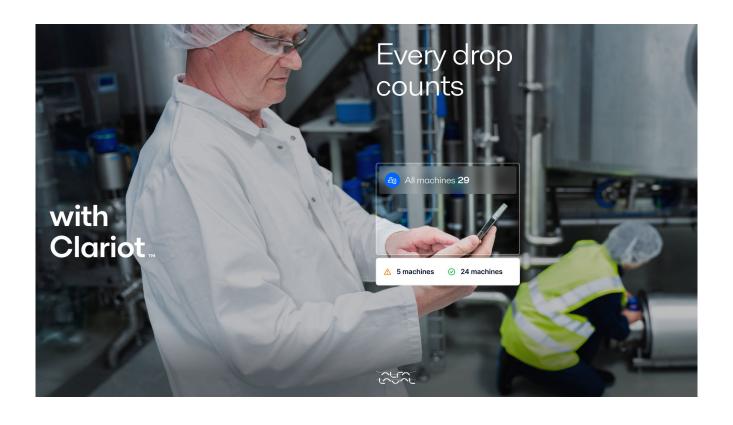
Clariot $^{\mathsf{TM}}$ Monitoring is a subscription service

| Duration: | 12 months |
|-----------|---------------|
| Renewal: | Automatically |



Spare parts access

You can order Alfa Laval Clariot™ components and spare parts via your normal sourcing channel. Find a list of items in the Alfa Laval online product catalogue.



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