

Energy &
Environment

Motor and Pump Monitoring & PHM Solution

Condition Monitoring and Optimized
Efficiency by IoT Cloud Services

Solution
Ready
Package

SRP-PHM403



- Visual dashboard for pump and motor monitoring
- Pump health management and failure diagnostics for efficient prognostics and health management
- Reliable analysis facilitates preventative maintenance



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Enabling an Intelligent Planet

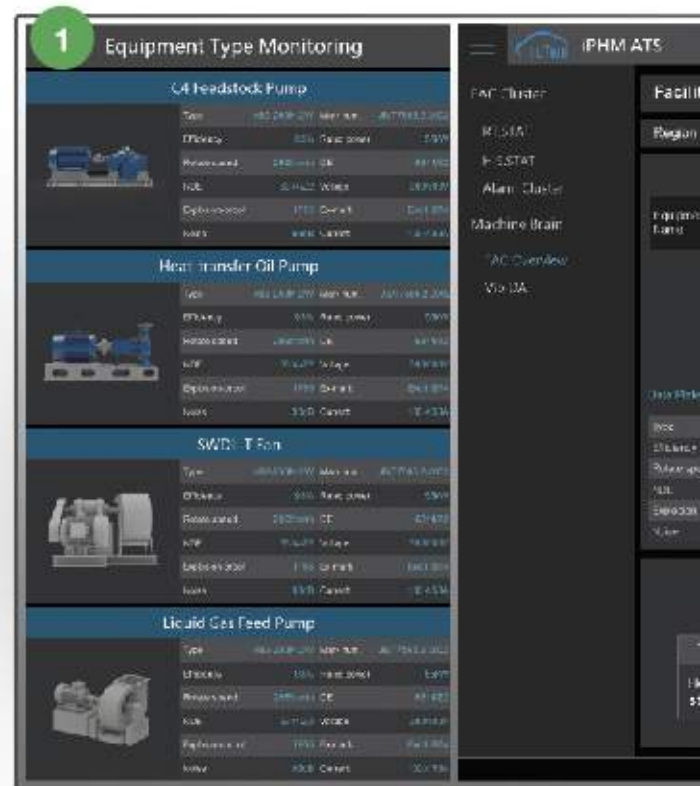


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WISE-PaaS

System Introduction

With the inclusion of failure diagnostics and preventive analysis for system monitoring and management, Advantech's motor and pump monitoring and prognostics and health management solution (PHM) offers real-time equipment monitoring, reliable failure diagnosis, and performance management to facilitate predictive maintenance and maximize operational efficiency.

WISE-PaaS/Dashboard



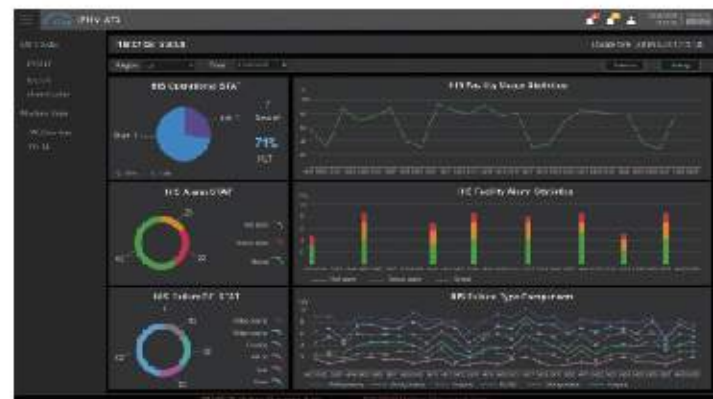
1 Focal Point: Equipment Type Monitoring

- Basic equipment data including type, power rating, and explosion tolerance
- Real-time equipment data including rotation speed, noise, voltage, and status



Real-Time Status

- Real-time operational statistics
- Real-time alarm statistics
- Real-time failure distribution statistics
- Equipment operational status



Historical Status

- Operational statistics
- Failure distribution statistics
- Facility usage statistics
- Facility alarm statistics
- Failure type comparison



2 Interactive Dashboards: Facility Overview

- Equipment overview
- Status statistics
- Diagnostics
- Lifecycle data

3 Group Alarm Overview for Last 7 Days

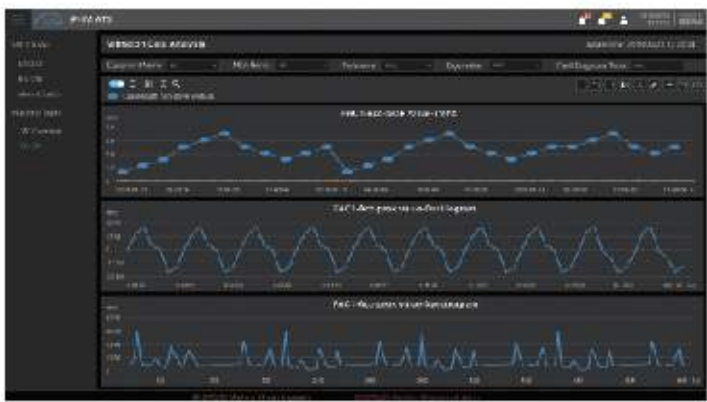
- Alarm type statistics
- Alarm analysis
- Alarm result statistics

Alarm Cluster List

Alarm ID	Alarm Name	Alarm Type	Event	Alarm Time
1	Temperature of the motor is too high	Warning alarm		2018/05/23 10:20:34
2	Motor oil level is too low	Warning alarm		2018/05/23 10:20:34
3	Temperature of the motor is too high	Warning alarm		2018/05/23 10:20:34
4	Motor oil level is too low	Warning alarm		2018/05/23 10:20:34
5	Temperature of the motor is too high	Warning alarm		2018/05/23 10:20:34
6	Motor oil level is too low	Warning alarm		2018/05/23 10:20:34
7	Temperature of the motor is too high	Warning alarm		2018/05/23 10:20:34
8	Motor oil level is too low	Warning alarm		2018/05/23 10:20:34
9	Temperature of the motor is too high	Warning alarm		2018/05/23 10:20:34
10	Motor oil level is too low	Warning alarm		2018/05/23 10:20:34
11	Temperature of the motor is too high	Warning alarm		2018/05/23 10:20:34
12	Motor oil level is too low	Warning alarm		2018/05/23 10:20:34
13	Temperature of the motor is too high	Warning alarm		2018/05/23 10:20:34
14	Motor oil level is too low	Warning alarm		2018/05/23 10:20:34

Alarm Cluster List

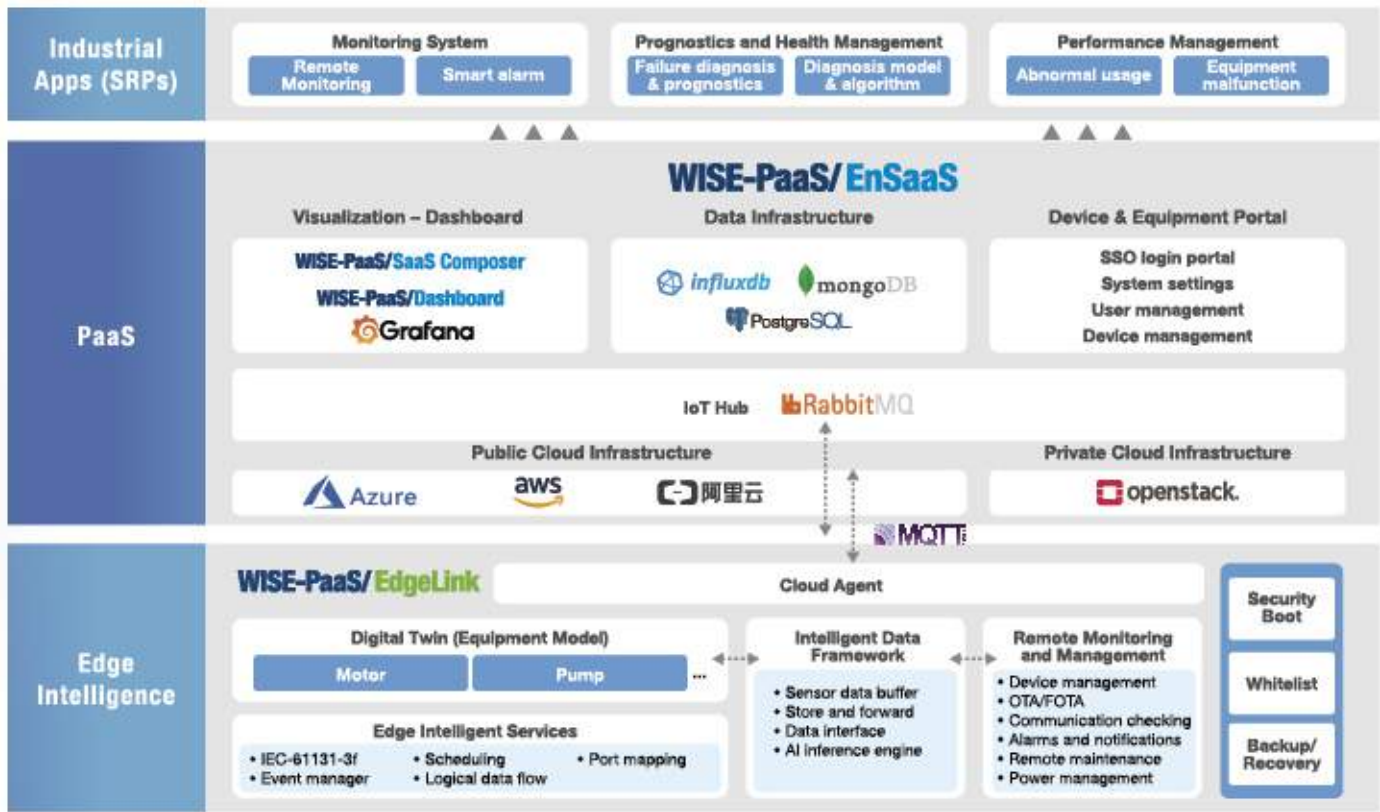
- Alarm summary by occurrence
- Alarm highlights (tendency/threshold)



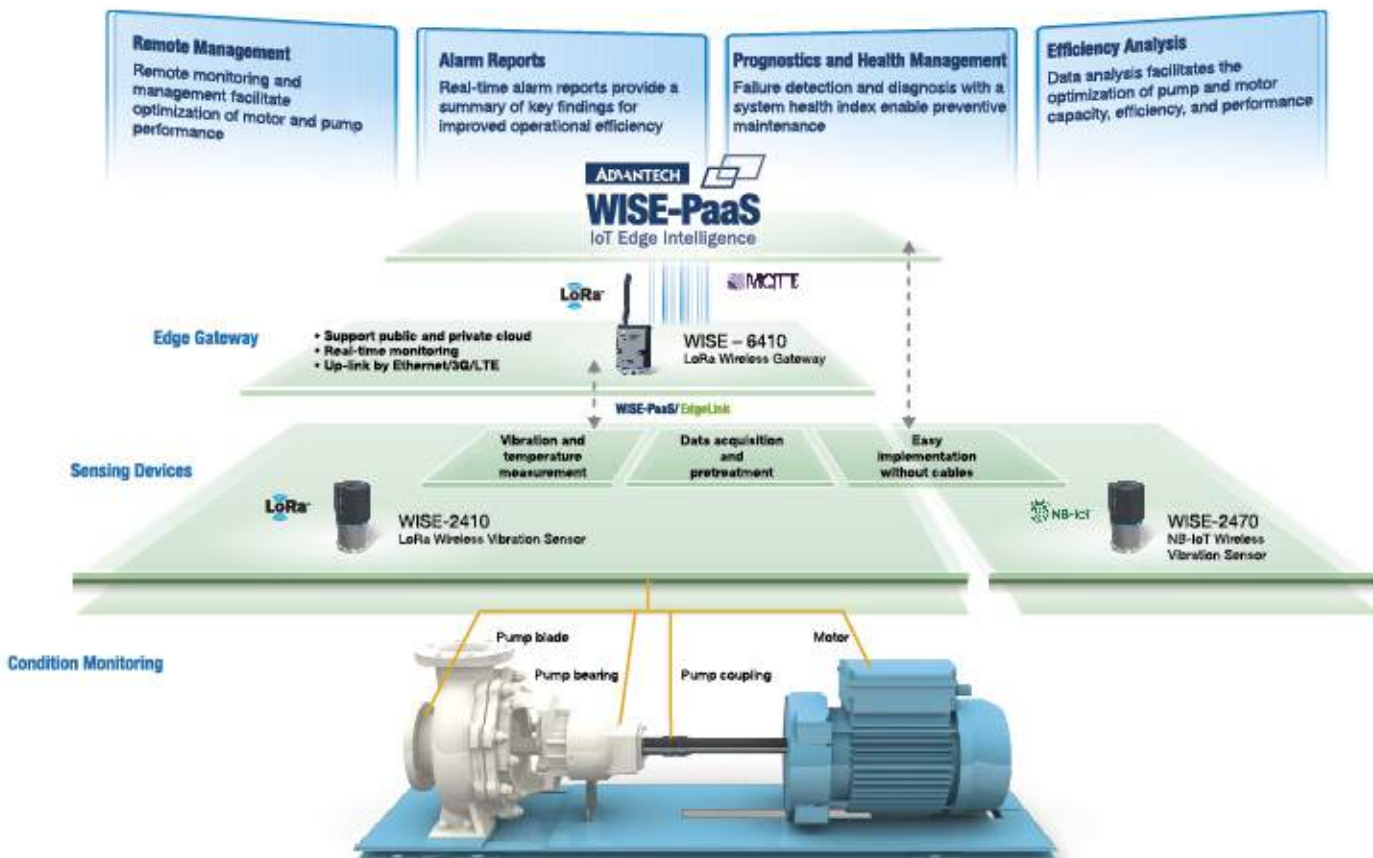
Vibration Data Analysis

- Motor and pump peak value trends for speed, displacement, and acceleration
- Oscillogram of motor and pump peak value
- Spectrogram of motor and pump peak value

Software Diagram



System Diagram



Feature Highlights

Reliable Failure Diagnosis

Diagnose motor and pump failure issues to enhance equipment performance

Vibration Data Analysis

Real-time motor and pump monitoring and data acquisition for optimum efficiency

Intelligent Performance and Maintenance

PHM improves motor and pump operation, extends the product lifecycle, and ensures equipment maintenance

Application Stories

Intelligent Prognostics and Health Management Facilitate Water Treatment






- Pump health management and failure diagnostics enhance equipment efficiency and facilitate intelligent prognostics and health management for water treatment applications
- Real-time pump monitoring and equipment overview shows type, power rating, and acceleration data
- Equipment operation monitoring enables optimized, centralized management



Remote Pump Monitoring and Predictive Maintenance in the Petrochemical Industry

- Real-time remote monitoring of key parameters such as pump speed, displacement, and acceleration
- Accurate diagnosis and preventive maintenance enhance operational insights and strategic planning
- Remote pump prognostics and health management extends the lifecycle of circulating pump bearings by up to 30%

Ordering Information

Solution Package		
WISE-PaaS Situation Room SRP-SR-100-BTO	LCD Wall: 1 x 86" + 2 x 55" Server and Display: 1 x DS-980 Control Panel: 1 x UTC-520 WISE-PaaS/Signage CMS	
WISE-PaaS VIP Membership 98DPWAP2K	2,000 WISE points	
SRP-PHM403 Motor and Pump Monitoring & PHM Solution	<ul style="list-style-type: none"> • Motor and pump condition monitoring software • Prognostics and health management of motor and pump software • Performance management software 	
SRP-PHM435 Intelligent PHM Solution for Pumps and Motors (LoRa)	WISE-2410 x1 WISE-6410 x1 WISE-PaaS/EdgeLink	
SRP-PHM436 Intelligent PHM Solution for Pumps and Motors (NB-IoT)	WISE-2470 x 1	
Optional Purchase		
IoT.SENSE Training	Basic training	2 days
	Advanced training	1 day
IoT.SENSE Consulting	IoT solution and on-site technical support	3 days

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