



PROtect your assetsPROtect the environmentPROtect your budget



AHUs

**CHILLERS** 

**PROJECTS** 

**SERVICE** 

## Daikin **PRO**tect

## for peace of mind

### What is Daikin **PRO**tect?

## Daikin PROtect is your long term economical and sustainable maintenance solution, direct from the manufacturer.

We offer a three year maintenance package (option to extend to five years) designed to protect and optimise your HVAC equipment. Because your maintenance is directly from the manufacturer, you can have peace of mind knowing that your assets are in the hands of the experts.

With the Daikin PROtect maintenance package we can offer you:

Fast and reliable remote diagnostics with Daikin On Site active monitoring

Rapid fault identification and resolution

Protected three year parts warranty (option to extend to five years) plus labour in the first year

Up to four hour response time for emergency callouts

Factory trained technicians (F-gas registered)





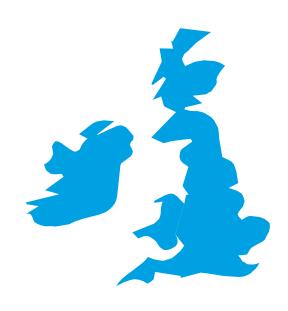
## What you get with Daikin **PRO**tect:

Conforms to SFG20 maintenance standard	
F-Gas leak test	
Oil Analysis	
Daikin on Site active monitoring	
Four visits per annum (1 major / 3 minor)	
3 years parts warranty	
1 point vibration analysis	Optional extra

## Why choose Daikin Applied Service?

Daikin Applied Service is one of the leading specialists for the maintenance and refurbishment of all brands of HVAC equipment. We operate across the UK and Ireland, offering rapid response and specialist solutions to your maintenance needs.

Our service solutions are further enhanced by Daikin On Site - active remote monitoring, which enables the proactive monitoring and diagnosis of AHUs and chillers, 24/7/365. This is supported by a reliable network of technical and on-site support services, helping you to optimise your system efficiency.



## Daikin on Site

## active remote monitoring

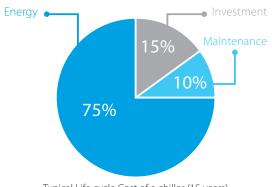
### What is Daikin on Site?

Daikin on Site (DoS) is a web-based 24/7/365 active remote monitoring system that collects complex operational data from the AHU or chiller control system.

Daikin's Smart Centre turns the operational data into useful information that allows the user to remotely monitor performance. It also allows Daikin professionals to remotely optimise and maintain the equipment.

## Lifetime cost of your system

Energy costs and maintenance typically account for 85% of the system's total lifetime cost. With DoS we can provide a preventative maintenance schedule to ensure maximum efficiency and reliability of your equipment, preventing costly downtime and major repairs and keeping your energy costs to a minimum.



Typical Life cycle Cost of a chiller (15 years)

### What you get with Daikin on Site

### Active monitoring and assistance

- > 24/7/365 automated alarm via email
- > Remote diagnostic support from Daikin experts
- > Quick site assessment
- > Smart mobilasation of service personnel to site if necessary

### **User friendly**

- > Access to DoS web app
- > Remote software upgrades
- > Interactive personalised dashboards

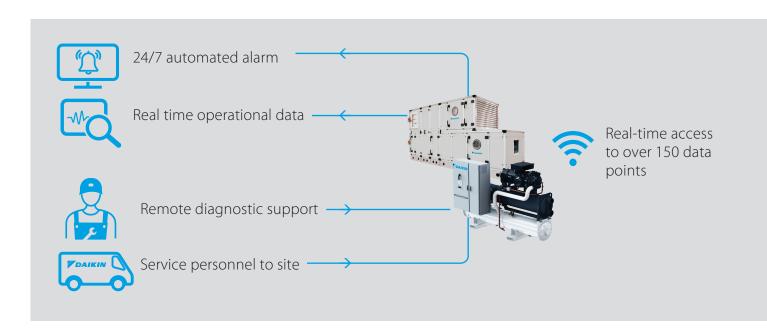
### Control and measuring



- > Master / slave functionality
- > Real time operational data and trend insights 24/7/365
- > Lifecycle data log
- > Automated and tailored reports

### Efficiency and reliability

- > Reduced operational costs
- > Optimised energy efficiency
- > Reduced waste
- > Reduced carbon footprint
- > Enhanced system reliability
- > Reduced system downtime



### How it works



### Cloud technology to hand

Using cloud technology, process data is collected automatically in real time and stored centrally.



## Insight into operational data for enhanced control and reliability

Through enhanced operational data, Daikin engineers are able to remotely monitor system performance, run diagnostics and software upgrades. If an on-site visit is required, the service engineer will arrive already informed of the issue, reducing system downtime.



### Simple, effective connection

Most Daikin Applied Chiller and AHU controllers allow connection through LAN or with a wireless modem.



### High security

Secure in all aspects such as data privacy, data storage security and data transport.

- All connections are encrypted (HTTPS) to prevent wiretapping and man-in-themiddle (MITM) attacks
- > CSA security attestation security level 2.
- > EU General Data Protection GDPR compliant
- > Geo-redundant data storage in Northern Europe





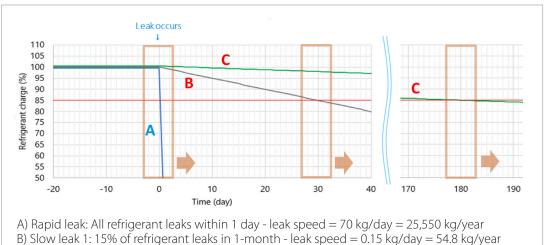


## Leak detection

## with active remote monitoring

New technology to the market, remote monitoring can now detect potential gas losses. An alarm is triggered, notifying the operator and allowing rapid respose to the machinery to prevent further gas loss. This feature can detect losses that are in a range of 0-15% of the total amount of gas. (Automatically available on Daikin on Site with units equipped with liquid temperature sensor). Users can view leak detection data through the DoS dashboard.

### Assumption: 100% refrigerant charge=30kg



### C) Slow leak 2: 15% of refrigerant leaks in 6-months - leak speed = 0.025 kg/day = 9.1 kg/year

# Vibration analysis

All HVAC equipment with rotating components has its own vibration signature. Any deviation from this signature can be used to accurately predict developing problems such as bearing wear, shaft unbalancing and degrading compressor rotor toelerances.

### Benefits

#### Reduced downtime

Vibration analysis when used as part of a condition based monitoring programme can prevent catastrophic failures and equipment downtime.

### Minimise costly repairs

Early detection of potential failures allows corrective action to take place preventing a major component failure.

#### Environment

Non-intrusive diagnostics minimises internal mechanical inspections and subsequent waste.

# Oil Analysis

## diagnostic and predictive maintenance

Oil comes in contact with many important internal components and therefore holds valuable information about a chiller's condition. The presence of harmful acids, corrosion causing water and abnormal metal wear particles can all be detected.

### What you get

- > Expert comments and corrective recommendations
- History and trend lines of chemicals, contamination, wear, acidity and moisture

### **Benefits**

### Reduced downtime

Prevent chiller failures and eliminate the cost of unexpected shutdowns.

### Minimise costly repairs

Identify and remedy problems early before they become bigger problems that are more expensive to repair.

#### Environment

Extending oil lifetime reduces handling of oil waste. It is a winwin for the environment and it is cost saving.

## Oil analysis can identify

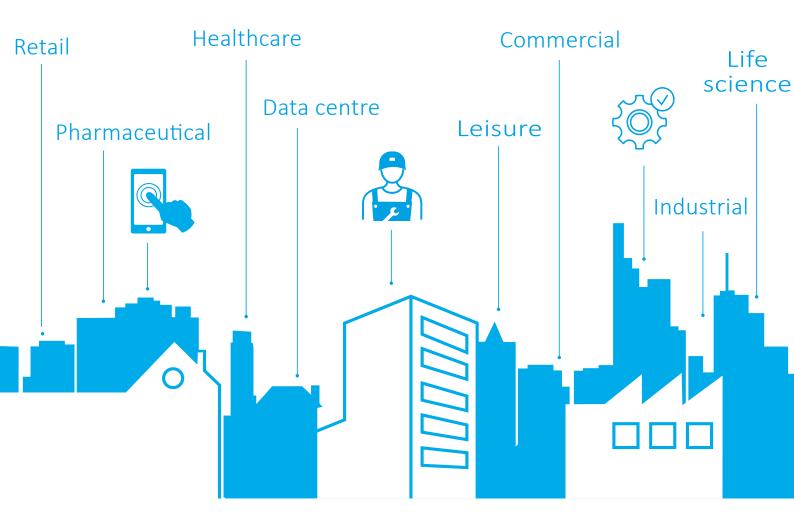
- > Lubricant condition
- → Internal contamination
- > Abnormal wear and mechanical condition



### What you get

- > Expert knowledge of compressor kinematics.
- A detailed report identifying equipment trends and corrective action required.
- Improved reliability and reduced lifecycle costs.





## For more information visit: www.daikinapplied.uk/service

For all Daikin Applied UK, Daikin Applied Service, Rental Solutions, & Spares enquiries call us on:

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