



## Co-Driver Services

# Temperature monitoring

Maintain your cold chain operations with a temperature monitoring solution.

Companies specializing in the transport of temperature-controlled goods need to monitor their temperature. The goal is to have an unbroken cold chain from factory to store. Often, their customers require reports with reliable data on temperature history of the delivered products.

There are also requirements from government agencies and industry organizations to equip refrigerators with temperature loggers. In addition to monitoring temperature, transporting companies must be able to provide traceability if goods have been destroyed due to deviating temperatures. This is important when to understand who is responsible. The applicable standard for temperature monitoring is EN12830: 1999.

**Temperature monitoring requires 2 (sometimes more) temperature sensors per cargo space:**

- Inlet air, what temperature is added to the goods?
- Return air, by how much do the goods get the temperature to rise/fall?

Through our temperature monitoring service, you can monitor the temperature in your trailers and other compartments in real time. Define maximum and minimum temperature thresholds, adapted to the transported product. Also, create reports in AddSecure Co-Driver Weboffice to monitor if these thresholds are exceeded. Any suspicious temperature variation can be dealt with immediately. This will prevent damage and penalties.



## Provide reliable temperature reports to your customers

The temperatures of your trailers are continuously recorded and archived. In case of a dispute, you can easily provide the temperature history in reports to justify your activity and avoid penalties related to the delivery of non-compliant goods. The reports can automatically and regularly be distributed to selected users via email.



Through the temperature report you get full control of the temperatures in your cargo spaces.

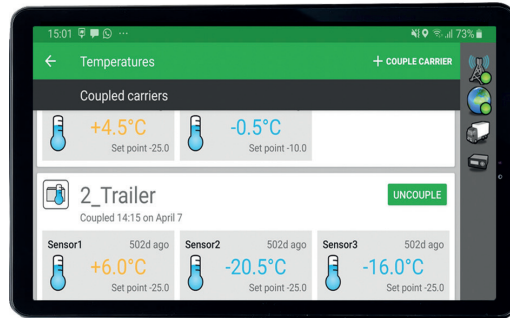
## How to track the temperature of my goods?

To monitor the temperature of your goods, you need an onboard computer that measures the temperature through independent temperature sensors, or connected to a logger at a cooling unit. AddSecure Asset Pro is a compact and easy-to-install unit that can be connected to the cooling equipment or temperature sensors in your trailer. It registers and transmits the data to Co-Driver Weboffice where you can monitor the temperature of your trailers.

If an Asset Pro is connected to a logger, installation is simple and a certified (EN12830) measurement system is already available. Asset Pro supports most common loggers on the market.

## Temperature monitoring for drivers (option)

Let your drivers follow the good's temperature on the screen in the cabin. The function gives drivers the possibility to follow the temperature every 5 minutes in any cargo space that is connected to Asset Pro via Co-Driver App or Vision Fixed/Mobile.



Let your drivers get access to the temperatures in your trailers and the cargo spaces

This feature makes it possible for the driver to check the status and act on deviating temperatures before the goods have been damaged. By selecting this service, you let your drivers get a full overview over the temperatures in the cargo spaces.

## Benefits

- Reduced costs for discarded goods when you can detect early if the temperature differs from the specified level
- Clear overview and tracking of temperature in real time and historically to analyze what has happened
- Good opportunities to be free of responsibility as you can detect temperatures in logs, positioning and diagrams
- Temperature is visible in the cabin for the driver who can take action immediately if the temperature deviates from the right level

## Required equipment\*

- Gathering temperature data: AddSecure Asset Pro
- Driver interface: AddSecure Co-Driver App or AddSecure Vision (for Driver temperature Monitoring) your sales manager for more information.)
- Company card hosted at AddSecure

\* For more information, please refer to the product data sheet

# Temperature Alarm

A fleet management system collects a lot of information from the vehicles and users. The large amount of data makes it difficult sometimes sometimes hard to discover when the data deviates from what is expected. The Co-Driver Alarm module aims to find such deviations automatically and to notify the users about it.

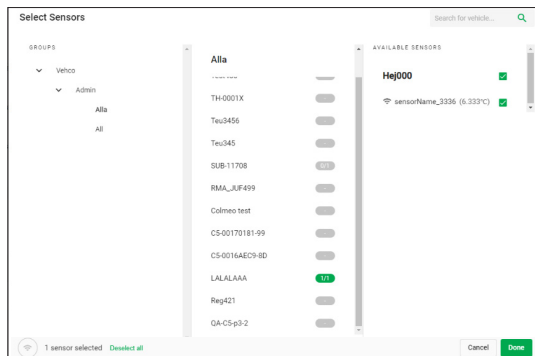
Cold transports are well regulated and transport companies need to secure an unbroken coldchain. Our temperature alarms alert the users about deviations in real-time so that problems can be solved immediately to avoid waste of temperature sensitive goods and unnecessary costs.

## How it works

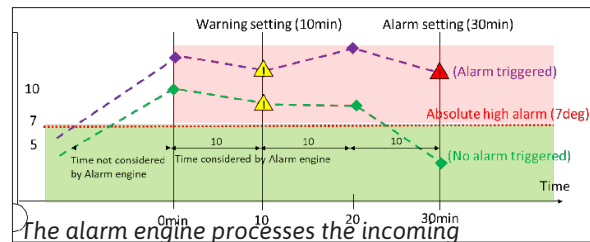
In the Alarms module, there are three main displays:

- Alarm Dashboard
- Alarm Configuration
- Alarm History

Temperature alarms are configured in the same way as other alarms, with one exception: Vehicle selection have been made more specific into a sensor selection. What is being monitored is the unique combination of a sensor address and a vehicle ID. If an alarm is triggered, notifications are sent according to the configuration.



Select the sensor for which you want to configure a temperature alarm in the alarm configuration menu in Weboffice.



The alarm engine processes the incoming temperature data, according to the alarm configurations in Weboffice, and decides if an event (like a warning or an alarm) should be triggered or not.

## Four different types of alarm configurations are available:

- 1. Absolute temperature alarms** can be configured on any sensor type. This configuration is made with relation to an absolute temperature limit.
- 2. Setpoint alarms** are based on a maximum allowed deviation from a wanted setpoint temperature.
- 3. No temperature data alarm**, is made to cover all situations for temperature alarms. If no temperature is reported at all for a certain time an alarm is triggered.
- 4. No setpoint data alarm** can be used if the Asset Pro device is connected to the data port of a compatible logger and the setpoint is configured to a specific sensor. This alarm is triggered if no setpoint data is received in the selected time.

Several configurations can be used simultaneously. In total, the four different alarm types can be used in different combinations to enable a smart monitoring of temperatures, keeping the temperature sensitive goods in a controlled environment, avoiding waste.

## Requirements:

- Included in the temperature monitoring service package.
- Asset Pro devices having either temperature sensors (wired or wireless) or connection to a logger.