

Cart Temperature Monitoring

Introduction

The Cart Temperature Monitoring solution is designed for monitoring and logging the temperature of food transport carts. It helps ensure that the temperature of both hot and cold food remains at the required level throughout the transport and distribution process.

Temperature data is automatically archived in the SmartKitchen service and is readily available for audits when needed. The solution is used, for example, in hospital food distribution, but it is also suitable for monitoring other types of food transport.

How the Solution Works

Temperature sensors are installed in food transport carts. Each sensor continuously records measurements in its internal memory. By default, the temperature is measured every 5 minutes. This provides enough memory to store measurement data for 3 days and 6 hours.

One or more gateway devices are placed in locations where the transport carts are frequently used. When a cart comes within range of a gateway, approximately 10 metres, the recorded measurements are automatically transferred to the SmartKitchen service.

Temperatures are monitored in the SmartKitchen web service. In addition to temperature data, the service shows the latest detected location of each cart.

Getting Started

The measuring devices and gateway devices have been installed by the equipment supplier and are ready for use.

The setup is performed as follows:

Step 1: Log in to the SmartKitchen service

Upon delivery, you received a username and a temporary password.

Log in to the service at <https://my.smartkitchen.solutions>

Step 2: Change your password

Select **Settings** and then **Login settings**. Change your temporary password.

Step 3: Name the measuring devices

Select **Settings** and then **Measurement devices**. At first, only the serial numbers of the devices are shown. Select a device and give it a unique name. Use the name that is used to identify the corresponding cart.

You can also assign a colour to the measuring device. If colours are used, use them consistently, for example to distinguish between hot and cold food carts.

Step 4: Create groups (This is optional, but it can make monitoring easier)

Select **Monitoring**. You will see all carts listed in the view. At the bottom of the page, select **Manage device groups**. Create the required groups and drag and drop the carts into them. For example, you may want to separate cold food carts from hot food carts.

Step 5: Name the gateway devices

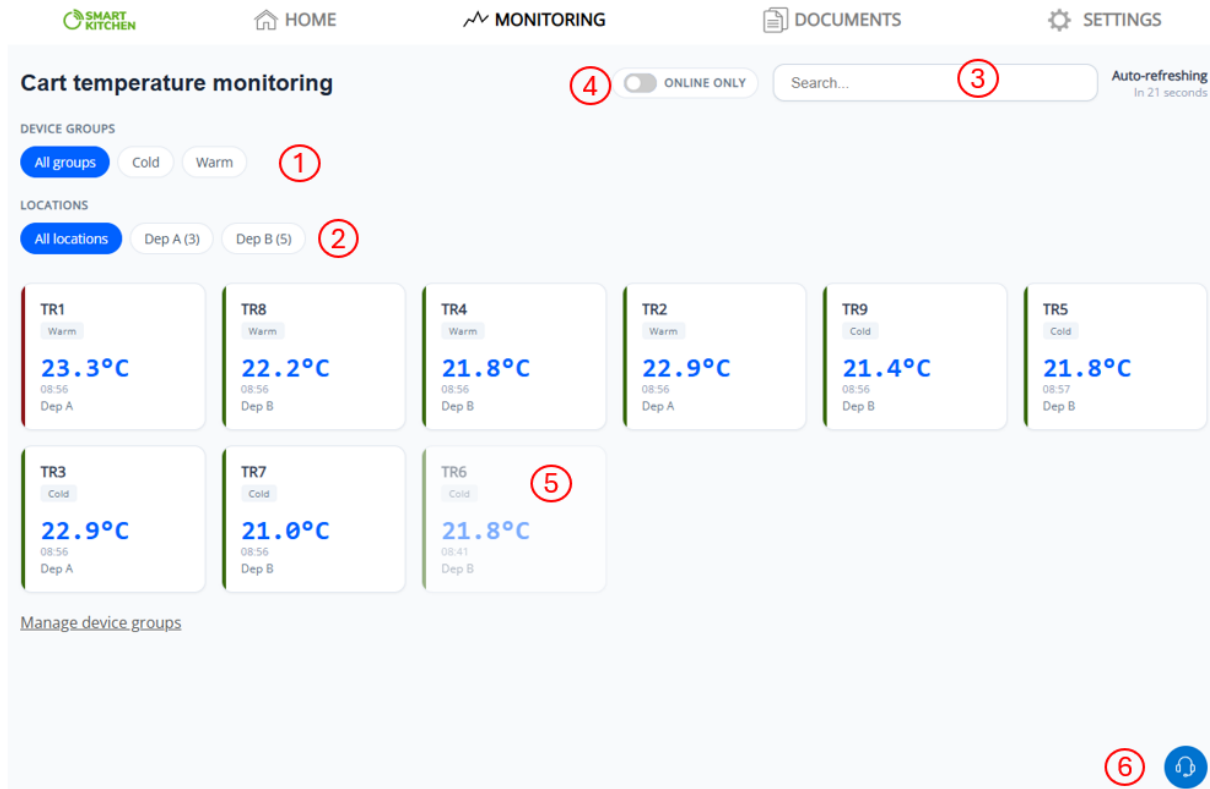
Select **Settings** and then **Gateway devices**. Give each gateway a name that identifies its location.

Monitoring

Overall View

Select **Monitoring** to open the overall view. The overall view can be filtered using the following options:

1. Filter by device group
2. Filter by location
3. Search
4. Show only online carts, meaning carts that are currently within range of a gateway
5. Offline carts are shown dimmed in the view.
6. Contact SmartKitchen HelpDesk



The screenshot displays the 'Monitoring' section of the SmartKitchen interface. At the top, there are navigation tabs: HOME, MONITORING (active), DOCUMENTS, and SETTINGS. Below the tabs, the 'Cart temperature monitoring' section is visible. It includes a toggle for 'ONLINE ONLY' (labeled 4), a search bar (labeled 3), and an 'Auto-refreshing' indicator. Under 'DEVICE GROUPS', there are buttons for 'All groups' (labeled 1), 'Cold', and 'Warm'. Under 'LOCATIONS', there are buttons for 'All locations' (labeled 2), 'Dep A (3)', and 'Dep B (5)'. The main area shows a grid of temperature cards for various devices (TR1 to TR9). Each card displays the device name, status (Warm or Cold), temperature, and location. Card TR6 is highlighted with a red circle (labeled 5). At the bottom right, there is a red circle (labeled 6) and a headset icon for help.

Device	Status	Temperature	Location
TR1	Warm	23.3°C	Dep A
TR8	Warm	22.2°C	Dep B
TR4	Warm	21.8°C	Dep B
TR2	Warm	22.9°C	Dep A
TR9	Cold	21.4°C	Dep B
TR5	Cold	21.8°C	Dep B
TR3	Cold	22.9°C	Dep A
TR7	Cold	21.0°C	Dep B
TR6	Cold	21.8°C	Dep B

Cart Data

The cart icon shows the following information:

1. Name and group
2. Latest temperature measurement
3. Time of the latest temperature measurement
4. Location, meaning the gateway that transferred the latest measurement



Temperature Chart

Select a cart to view its temperature history. You can adjust the time span by:

1. Selecting the time period
2. Zooming with the rulers

If the cart is offline, there will be a break in the temperature curve (3).

