SKF ProCollect

User Manual

P/N Part Number **15V-090-00089-100** Revision Letter **D**

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1 Introduction

This chapter is a short introduction to the SKF ProCollect mobile application.

1.1 Overview

ProCollect is an application designed to run on a mobile device such as a mobile phone or tablet. ProCollect is used to collect, store and share machine data. The machine data (process and inspection) can be entered manually or via the QuickCollect sensor (vibration and temperature).

A route with measurement points is first created in SKF Enlight Centre, and then synchronised with the ProCollect application. The route is walked by a user who collects machine data using the ProCollect mobile application.

The collected data is then synchronised with SKF Enlight Centre where the data can be analysed.

1.2 Scope

The purpose of this user manual is to provide instructions for ProCollect. The intended audience is all users of ProCollect. The manual does not contain information about any hardware or how to install or modify other software.

1.3 Typographical convention

Names of buttons and on-screen objects are presented in bold text, e.g. click **Log in**.

In this manual, the word "select" means to choose and confirm selection of an item or alternative.

Messages displayed on the screen are written in italics enclosed in single quotes, e.g. '*A route already exists*'.

Note: Is used to indicate notes to the reader (information of special importance).

Step-by-step procedures are sequenced using sequence numbering: 1., 2., 3., …

Procedures not dependent on sequence order use bullets: •. Bullets can also mark a list of functions or buttons.

1.4 Supported mobile operating systems

ProCollect supports Android 6.0 Marshmallow and later versions, iOS 10.0 and later versions, and Windows 10. Download the latest version of ProCollect from the App Store.

2   Functionality description

This chapter describes the functions in the ProCollect mobile application.
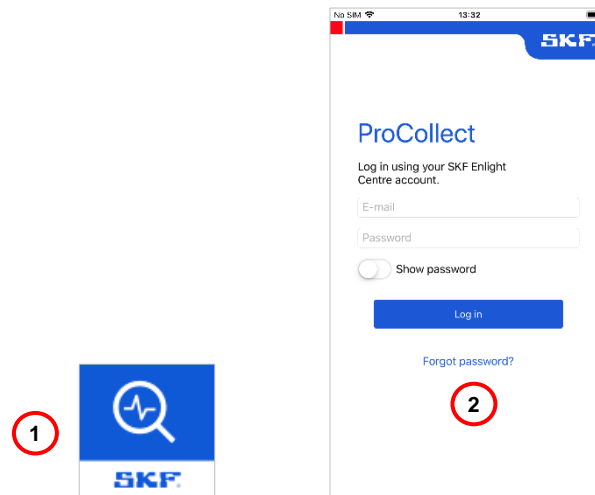
2.1   Log in

Figure 1 – Log in to ProCollect

1   Tap the **ProCollect icon** to launch the login screen.

2   **Log in** using your SKF Enlight Centre account.

***Note:** Before logging in, an Enlight Centre account must be created. The user account is set up by your local sales representative.*

2.2 Routes

Routes are used to manage what data must to be collected by the ProCollect user and when this data has to be collected. A route is a selection of functional locations with data to be collected. The routes are created from the customer hierarchies in Enlight Centre and then synchronised with ProCollect .

Note: *Synchronisation with Enlight Centre can only be performed when a mobile data connection is available.*

After logging in to ProCollect a list of routes is shown, with each route identified by a name and due date.
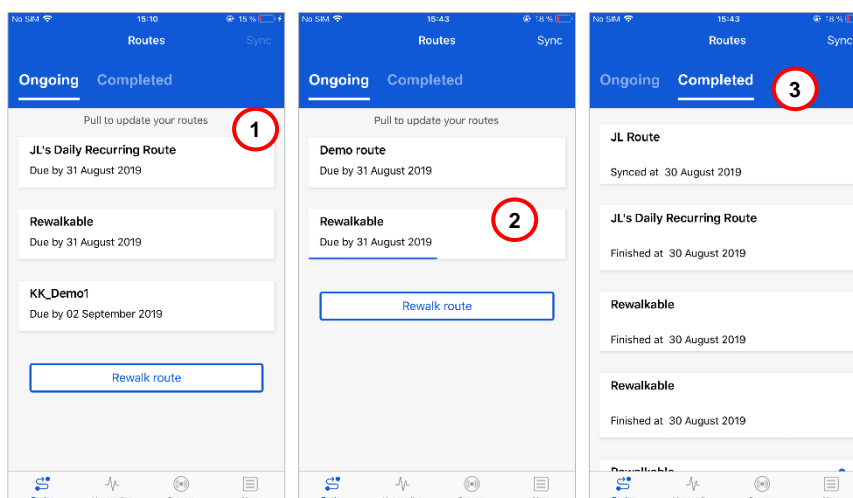
Figure 2 – Ongoing and completed routes.

1 Pull to refresh the list of **ongoing** routes. Blue dot means that the route is new.

2 When a route is collected for all the included data but not synced to Enlight Centre, it still appears in the **ongoing** tab.

3 Completed routes are shown in the list of **Completed** routes.

2.2.1 Rewalkable route

If a route is set to **Rewalkable** in Enlight Centre, copies of a route can be created within ProCollect. Clicking **Rewalk route** displays a list of rewalkable routes. Rewalkable routes created from ProCollect can also be deleted.

Figure 3 - Rewalkable route

1   Tap the **Rewalk route** button to display rewalkable routes.

2   Create a new copy of a rewalkable route by selecting a route in the list and tap **Rewalk**.
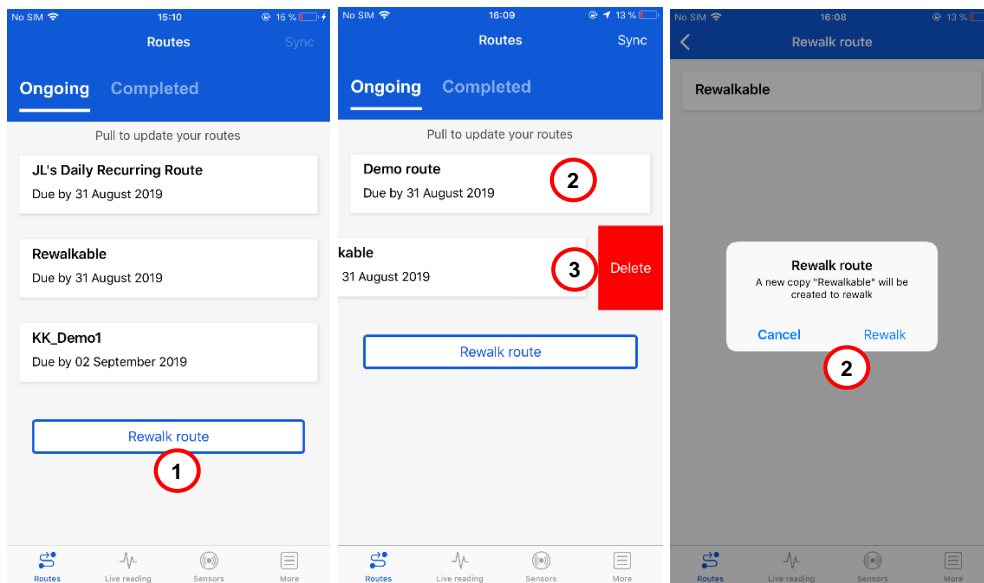
3   Delete a copy of a rewalkable route route by selecting the **Delete** option.
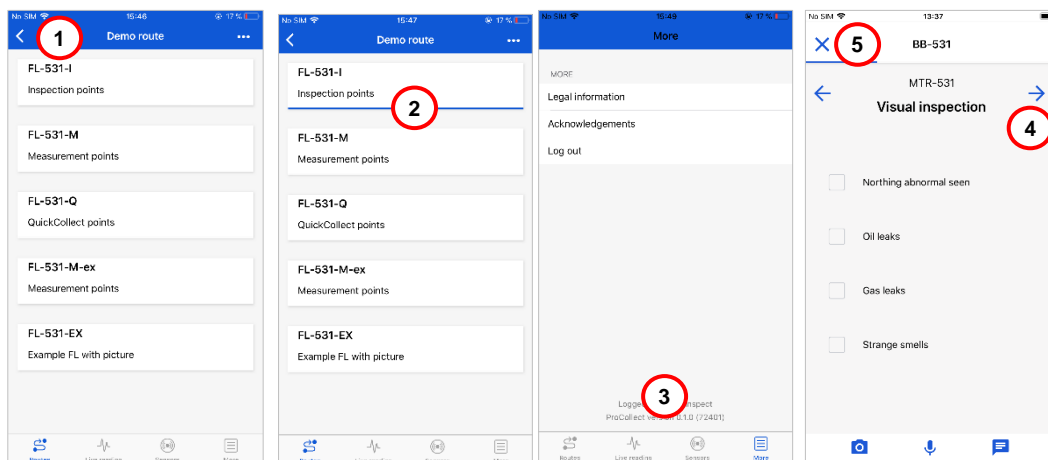
2.3   Navigation

Figure 4 – Navigation

4   Navigate back to the previous screen with the **arrow**.

5   Completed Routes and Functional Locations are indicated by a **blue progress bar**. Partially blue bar means that the Functional Location or Route is partially completed.

6   In the bottom navigation bar:

  a.   Tap **Routes** to collect data from routes sent from Enlight Centre.

  b.   Tap **Live reading** to get immediate data readings using a sensor.

  c.   Tap **Sensors** to connect to a sensor and view sensor information.

  d.   Tap **More** to find important information, including **Log out** capability.

7   Navigate to the next / pervious screen by tapping the **arrows**.

8   Tap ✕ to exit a screen.

2.4   Collecting data

The ProCollect app is used to collect, store and share machine data that has been collected by a user, typically a machine operator.

In brief, a typical operation would include the following steps:

- Bring the QuickCollect sensor and smart device to the machine (such as a pump or motor).
- Mount the sensor on the bearing housing using the magnet mount.
- Initiate the sensor measurement wirelessly, using Bluetooth®, from the SKF ProCollect app running on a smart device.
- After taking the measurement, remove the sensor and proceed to the next machine or measurement location to continue taking measurements.

2.4.1 Select route, functional location and measurement point
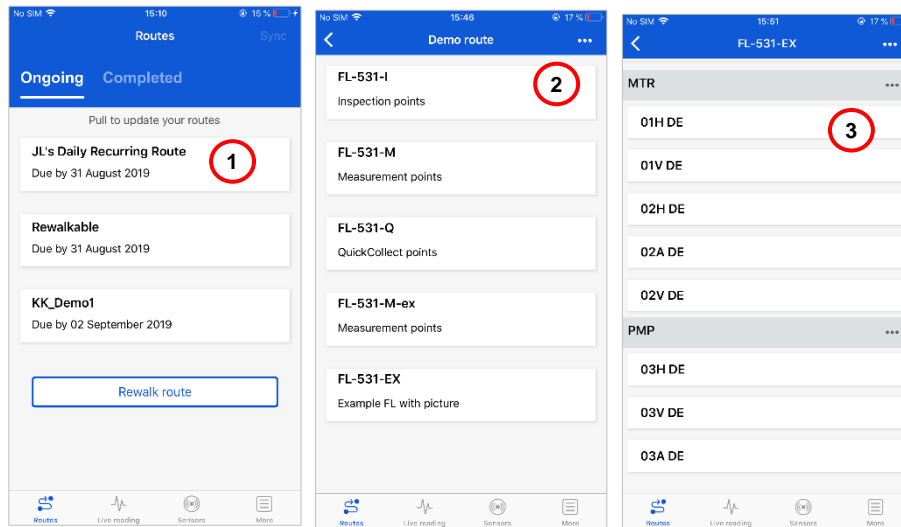
Figure 5 – Select route, functional location and measurement point

1   Select **Route**.

2   Select **Functional location**.

3   Select **Measurement point**.

2.4.2 Measurement and inspection points

Measurement points

Measurement point data is collected with the QuickCollect sensor:

- Temperature
- Velocity
- Enveloped acceleration 2
- Enveloped acceleration 3
- Acceleration

Inspection points

Inspection points are collected using data from other sources:

- Numeric
- Single choice
- Multiple choice

Additional attachments, such as photographs, audio recordings and text messages can be collected and attributed to measurement or inspection points. For examples, see **Figure 6**.

Collecting data

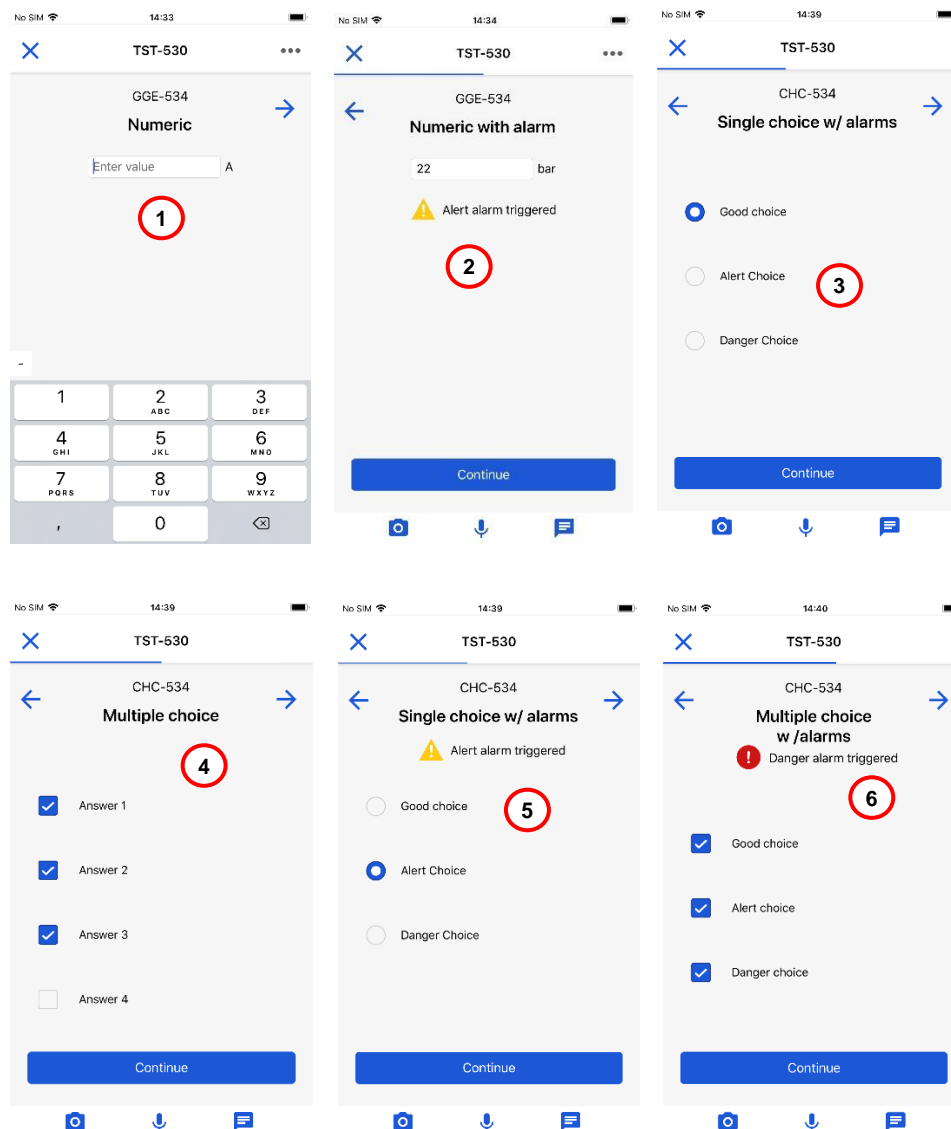*Figure 6 – Measurement and inspection points*

1 Inspection point, numeric value

2 Inspection point, numeric value with alarm thresholds

3 Inspection point, single choice

4 Inspection point, multiple choice

5 Inspection point, single choice with alarms on inspection choice

6 Inspection point, multiple choice with alarms on inspection choice
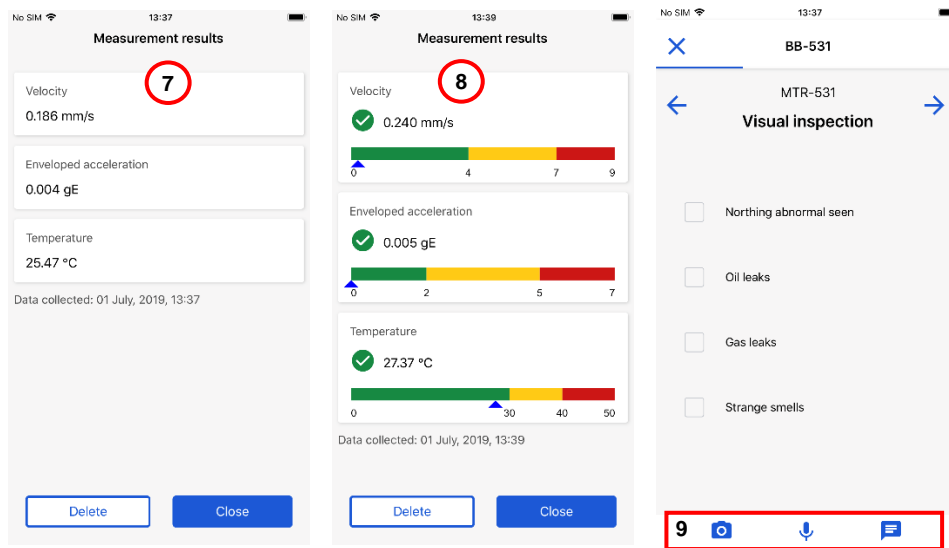
Figure 7 – QuickCollect points and attachments

7 Collected QuickCollect point with no set alarms

8 Collected QuickCollect point with set alarms

9 Attachments: photo, audio file and text note

2.4.3 Set status if data cannot be collected

Figure 8 – Measurement data cannot be collected

1 If measurement data cannot be collected, select the asset by clicking the **dots** by the asset name.

2 Select **Not monitored** or **Out of service** and add information why measurement data cannot be collected.

2.4.4 Connect to the QuickCollect sensor
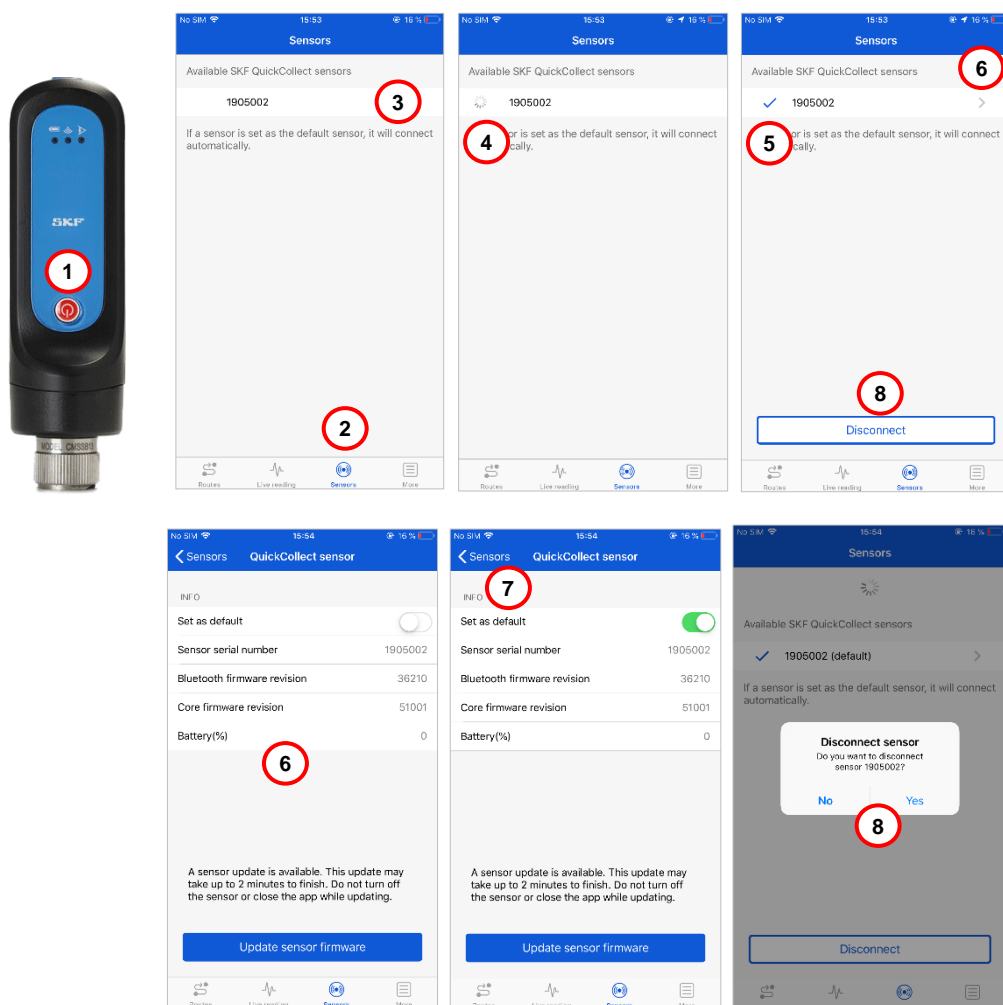
Figure 9 – Connect to the QuickCollect sensor

1   Make sure that **Bluetooth** is activated on the mobile device and that the data collecting device, the **QuickCollect** sensor, is turned on.

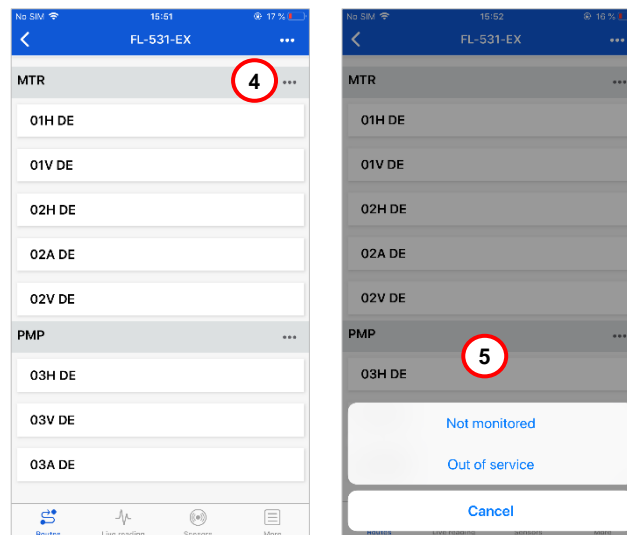**2**   In **ProCollect**, tap **Sensors**.

3   Tap the **QuickCollect sensor** to connect.

4   Indication that the **sensor** is connecting.

5   List of available **QuickCollect sensors**.

6   Tap the **>** arrow to show **sensor information**. Select **Set to default** to connect the **sensor** automatically. Information about current Bluetooth firmware, **sensor** firmware and battery level are also displayed.

7   Tap **< Sensors** to go back to the **Sensors view**.

8 Disconnect the **QuickCollect sensor** by selecting it from the list of available sensors and tap **Disconnect**. A pop up dialogue to confirm is shown.

2.4.5 Data collection

Figure 10 – Collect measurement data

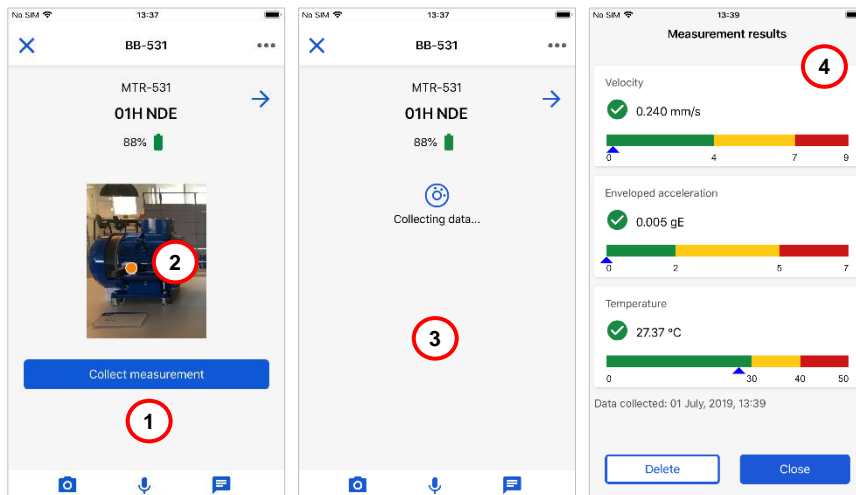1 Place the QuickCollect sensor at the measurement point. Start collecting data by tapping the **Collect Measurement** button. If an image for the **asset** is added in **Enlight Centre**, then the image is displayed here.
Note: Make sure that the QuickCollect sensor is placed on the asset and is mounted correctly.

2 If a **measurement location** is set in Enlight Centre, it is displayed on the image. This indicates where to place the QuickCollect sensor.

3 The QuickCollect sensor is **collecting data**.

4 The **Measurement Results** screen is shown. The collected data includes **Velocity**, **Acceleration envelope** and **Temperature**.

Each reading displays a current overall measurement. If alarm thresholds are configured, the alarm status, alert thresholds and danger thresholds are also displayed. The colour-coded bars indicate alarm status: green for acceptable, yellow for alert and red for danger, see **Figure 11**.

FUNCTIONALITY DESCRIPTION

Collecting data
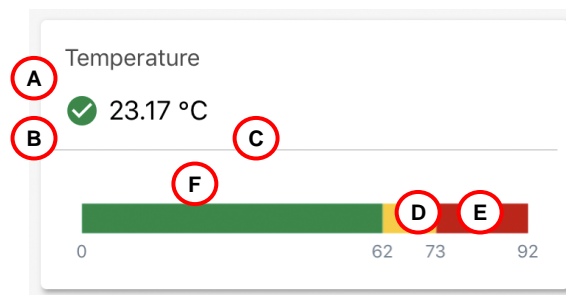
Figure 11 – Reading detail

A	Measurement type	**D**	Alert threshold
B	Alarm status	**E**	Danger threshold
C	Overall value	**F**	Current reading
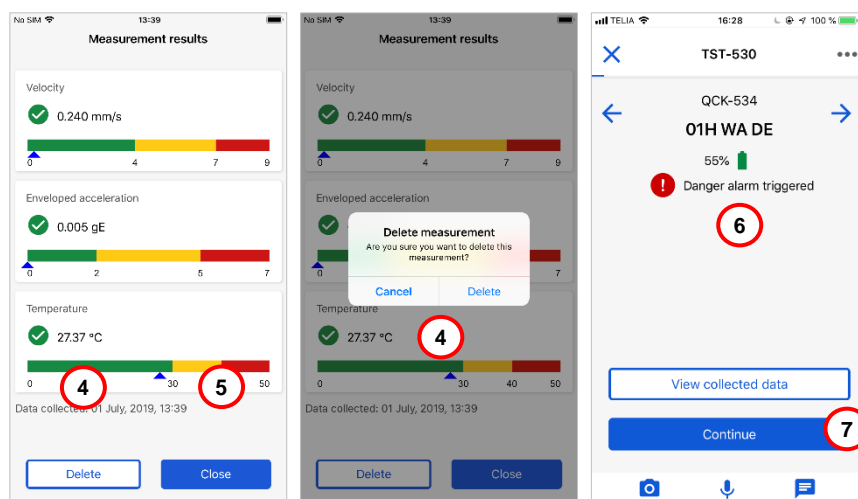
Figure 12 – Collected measurement data

5   Tap the **Delete** button to delete the collected data.

6   Tap **Close** to continue.

7   If the collected data is out of range, a **warning message** is shown.

8   Select buttons for adding a **photo**, an **audio file** or a **text attachment** to a measurement point.
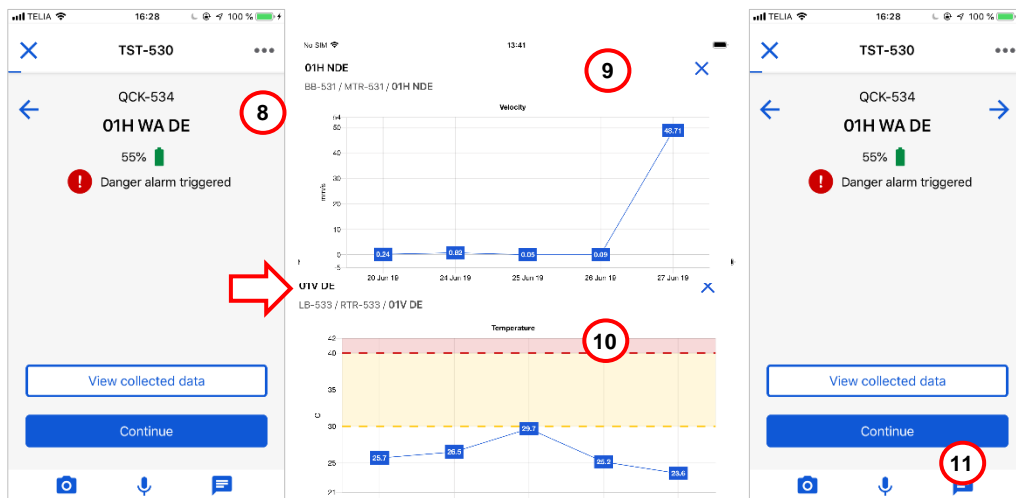
Figure 13 – View past measurements

9 Tap on the **dots** by the asset name and then **View trend history,** to access view historic data for the selected measurement point.

10 Trend history without alarms. Press the **X** to exit the view.

11 Trend history with alarms. Press the **X** to exit the view.

12 Tap **Continue** to proceed.
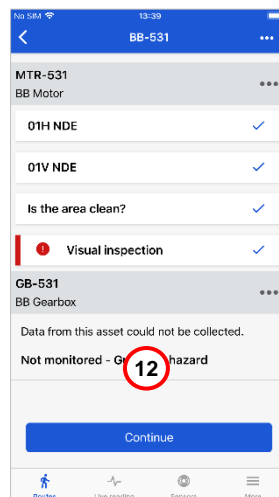
Figure 14 – Completed functional locations

13 Repeat the process for the next functional location by tapping **Continue**.

Collecting data
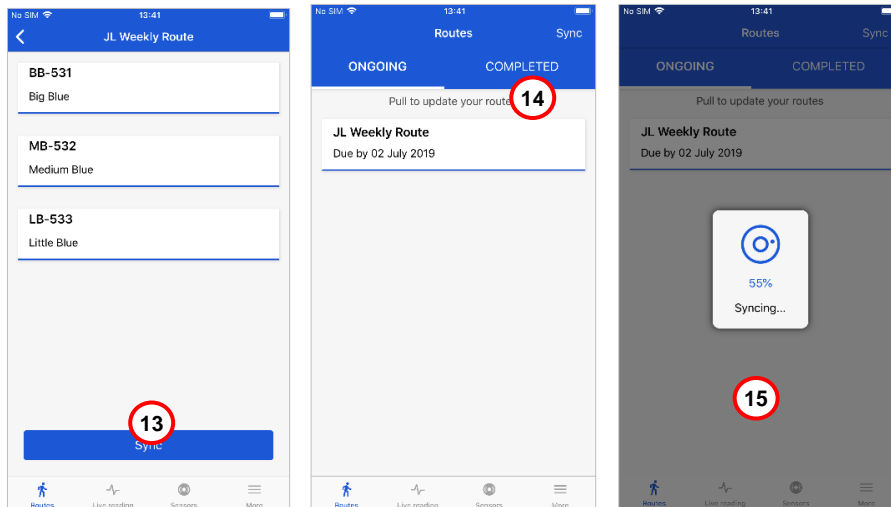
Figure 15 – Synchronise all collected data

14 After completing a route, tap **Sync**. This synchronizes all collected data with Enlight Centre.

15 Once the route is completed and synced, it is moved to the **Completed** tab.

16 Collected measurement data is **uploaded** to Enlight Centre.

*Note: Synchronisation of collected data with Enlight Centre can only be performed when a mobile data connection is available. If connection is lost during synchronisation, the **Sync** button must be tapped again when the connection is reestablished.*

Note: Collecting data with ProCollect does not require a mobile data connection.

2.4.6 Sensor configuration and sensor types

Based on the Sensor type set in Enlight Centre, the ProCollect will indicate and restrict to only use that sensor type and, if specified, an extension sensor for a certain point.

The user is instructed to use a specified sensor only, this applies to extension sensors and the internal QuickCollect sensor. The specification is based on the configuration of the measurement or the QuickCollect point.

The sensor with model number CMDT 390 is not compatible with the extension sensor.
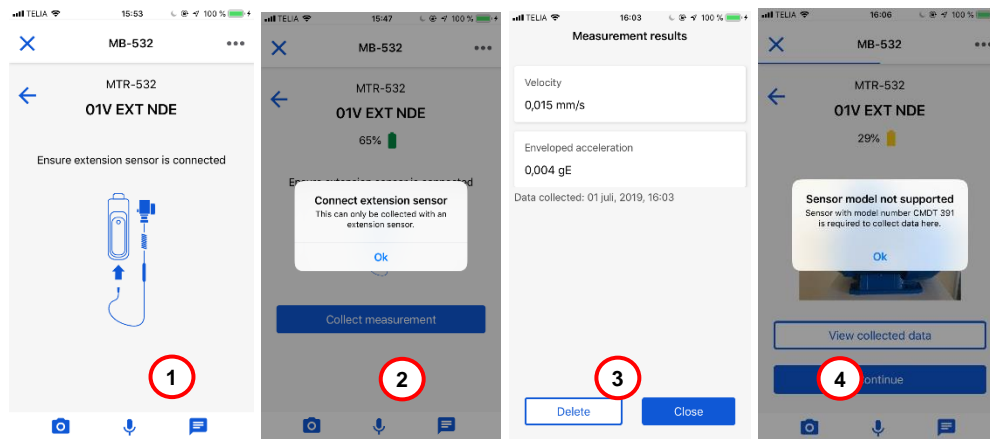
Figure 16 – Extension sensor

1   Indication that an extension sensor must be connected

2   Indication that the selected point requires an extension sensor

3   The extension sensor only collects vibration data, such as velocity and enveloped acceleration. Temperature is not collected.

4   Indication that an unsupported sensor model is used, recommendation to change to a supported sensor model.

2.4.7 QuickCollect sensor firmware updates in ProCollect app

When a new version of the **sensor** firmware is available for use, notification about the new version is shown in the **sensor information** page. The **sensor** firmware can be updated directly from **ProCollect.**

Figure 17 – QuickCollect sensor firmware updates in ProCollet

1   Information about new sensor firmware.

2   Tap **Update sensor firmware** to begin the update process.

3   Update starts and instructions are provided along with the update progress.

4   Update starts and instructions are provided along with the update progress.

2.4.8   Configure alarms and gauges

Configuring alarm thresholds

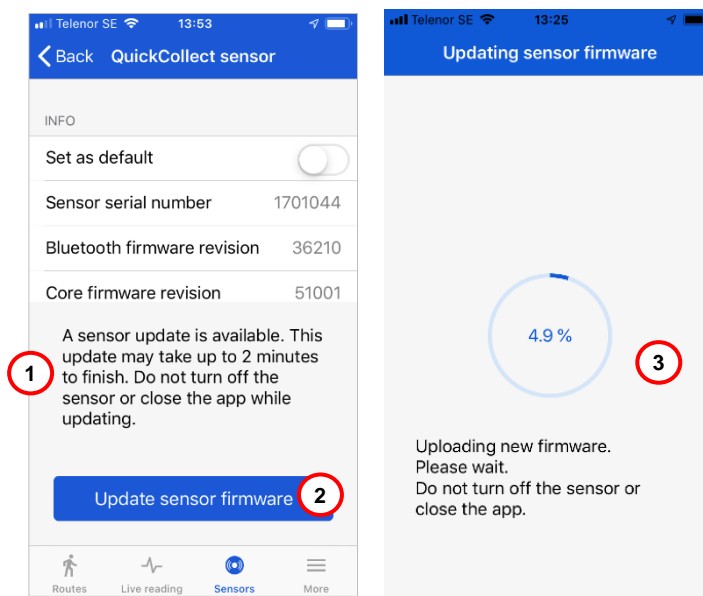Alarm thresholds are configured in Enlight Centre and synchronised with ProCollect together with the routes. If the measured value exceeds the danger alarm threshold, a warning message is shown, see **Figure 18**. See the Enlight Centre User Manual, Section **4 References**, for more information on how to configure the alarm thresholds.

Note: *if no visualization for the alarm is configured in Enlight Centre, then no alarm information is shown until an input is inserted.*
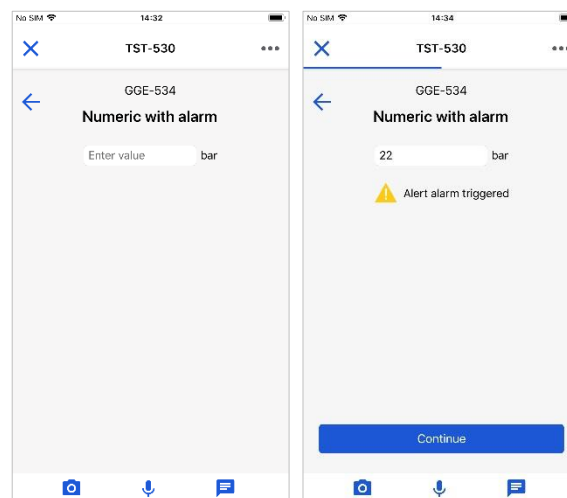
Figure 18 – Alarm thresholds

Configuring circular and level gauges

As with the alarm thresholds, the circular and level gauges are configured in Enlight Centre and synchronised with ProCollect. The circular and level gauges can be configured with or without alarm thresholds, see **Figure 19**.

When collecting data, the value can either be manually inserted or adjusted to the measured value directly on the gauges on the screen. The gauges are interactive and a text box is available for manual entry.

FUNCTIONALITY DESCRIPTION

Collecting data
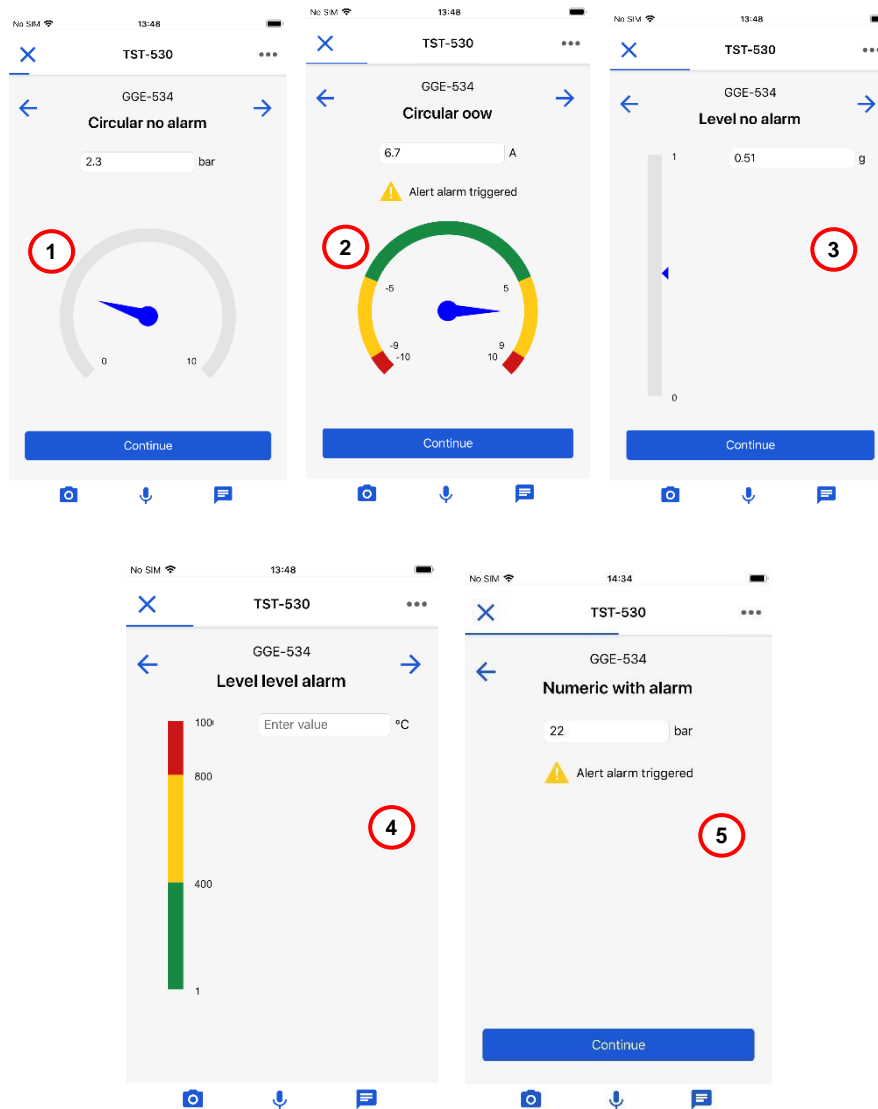
Figure 19 – Visualized circular and level gauges

1 Circular gauge, without alarm thresholds

2 Circular gauge, with alarm thresholds

3 Level gauge, without alarm thresholds

4 Level gauge, with alarm thresholds

5 Numeric value, with alarm levels

2.4.9   Live reading of a route

The **Live reading** mode enables the ProCollect user to get immediate data readings using a sensor.
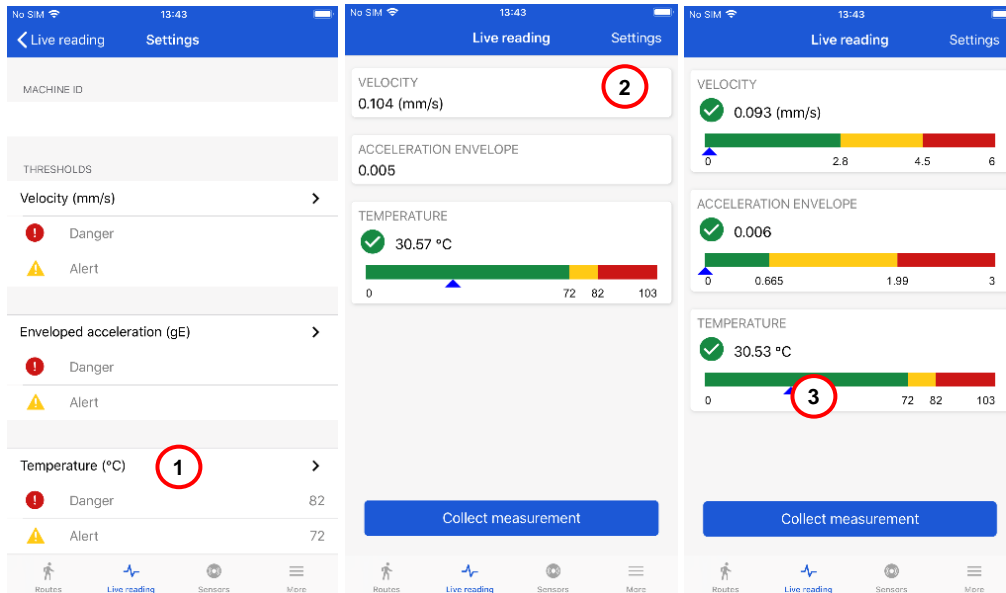
Figure 20 – Live reading mode

1   Tap the **Live reading** icon to collect measurements in **Live reading** mode.

2   Tap **Settings** in the **Live reading** mode to set parameters defining thresholds for velocity and enveloped acceleration.

3   **Live reading mode** after setting the parameters.

2.4.10 Complete route

It is possible to manually set routes as completed. When the status is set to complete, the collected data in the route can be uploaded to Enlight Centre by following the standard **sync** procedure. ***Note:*** *Setting the status to complete removes the option to change or update the route, and no additional data can be added.*

Figure 20 – Complete route

1 Select a route and tap the **dots** in the upper right corner.

2 Tap the **Complete route** option.

3 Verify the completion.

3 **Glossary**

Asset

An Asset is a specific piece of equipment with a unique identification number.

Enlight Centre

Enlight Centre is a web based software that is facilitates collection and analysis of machine data.

Functional Location

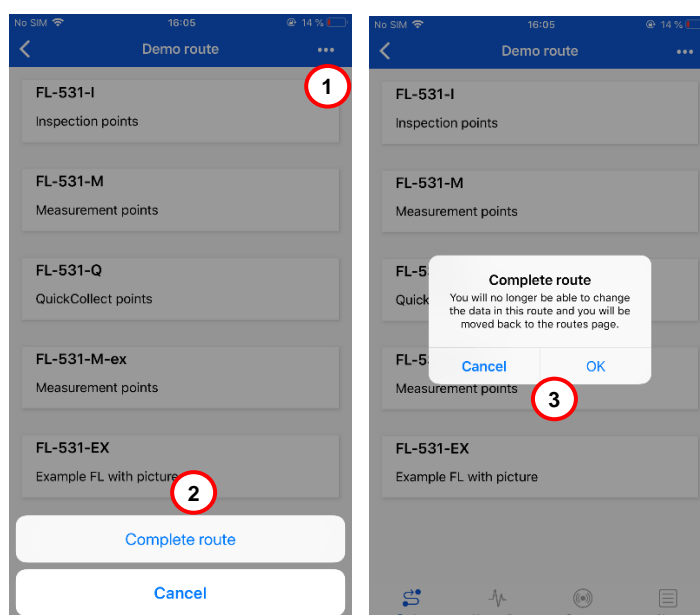A Functional Location is an organisational unit within logistics, that structures assets of a company according to functional, process-related or spatial criteria. A Functional Location represents the place at which a task is performed, and where various Assets can be installed.

Functional Location ID

A Functional Location groups assets of a company according to functional, process-related or location criteria. Typically, a Functional Location represents the place at which a task is performed, and where various Assets are installed. Examples: Water injection skid, Compressor house, Motor room.

ProCollect

ProCollect is an application designed to run on a mobile device such as a mobile phone or tablet. ProCollect is used by an inspector for collection of machine data.

QuickCollect sensor

A data acquisition device used for collecting machine vibration and temperature data.

4   References

1. SKF Enlight Centre User Manual,
   Part No. 15V-090-00076-100 EN, Revision C

2. SKF QuickCollect Sensor CMDT391 User Manual,
   Part No. 15V-090-00090-100 EN, Revision A

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SKF ProCollect

User Manual

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