

# SKF QuickCollect sensor

Machine monitoring made easy



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The SKF QuickCollect sensor is an easy to use bluetooth enabled handheld sensor that connects to iOS and Android apps on your tablet, smart phone or smart watch (iOS only). Combining vibration and temperature sensing, overall data can be viewed on the spot in real time or pushed to the cloud for future analysis.

This SKF QuickCollect sensor is ideal for service, reliability, operations, or maintenance personnel as part of a walk around data collection program.

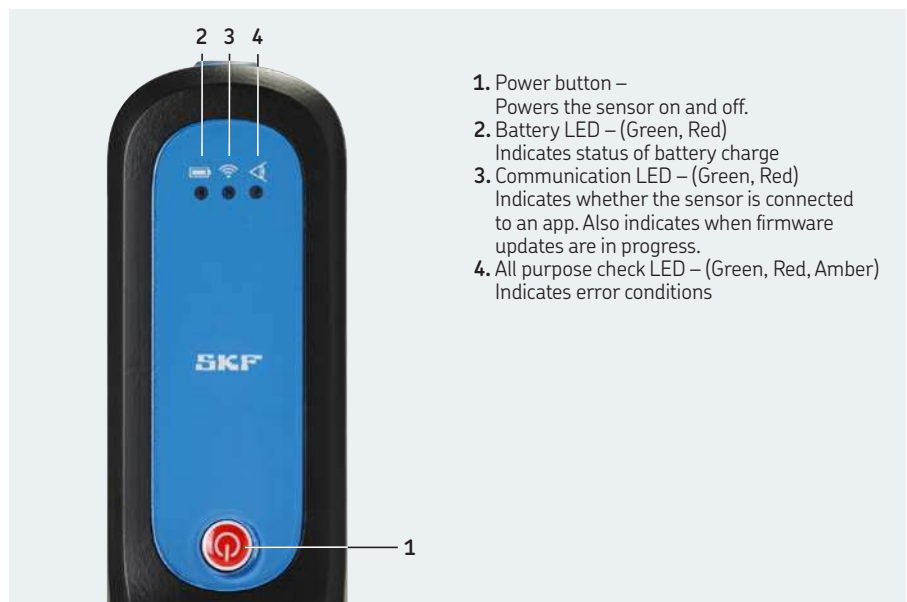
## Features

- Velocity, acceleration enveloping, and temperature measurements
- Bluetooth communication with tablets, smart phones, smart watches
- Easy to use sensor and apps
- Easy to understand indications of machine condition
- Rugged industrial design – Drop test 1.8 m (6 ft.), water and dust resistant (IP65)
- Rechargeable lithium battery (full working day in normal usage)
- Option to connect, store and share data on the Cloud
- Option to connect directly to SKF Remote Diagnostic Services
- Apps for both iOS and Android devices

## Benefits

- Gets you started quickly
- Can be used with minimum training and experience
- Identify developing rotating machinery issues before they become problems
- Connect directly to expert advice when you need it
- Expand functionality via apps to grow and compliment your existing maintenance program

## Controls and indicators

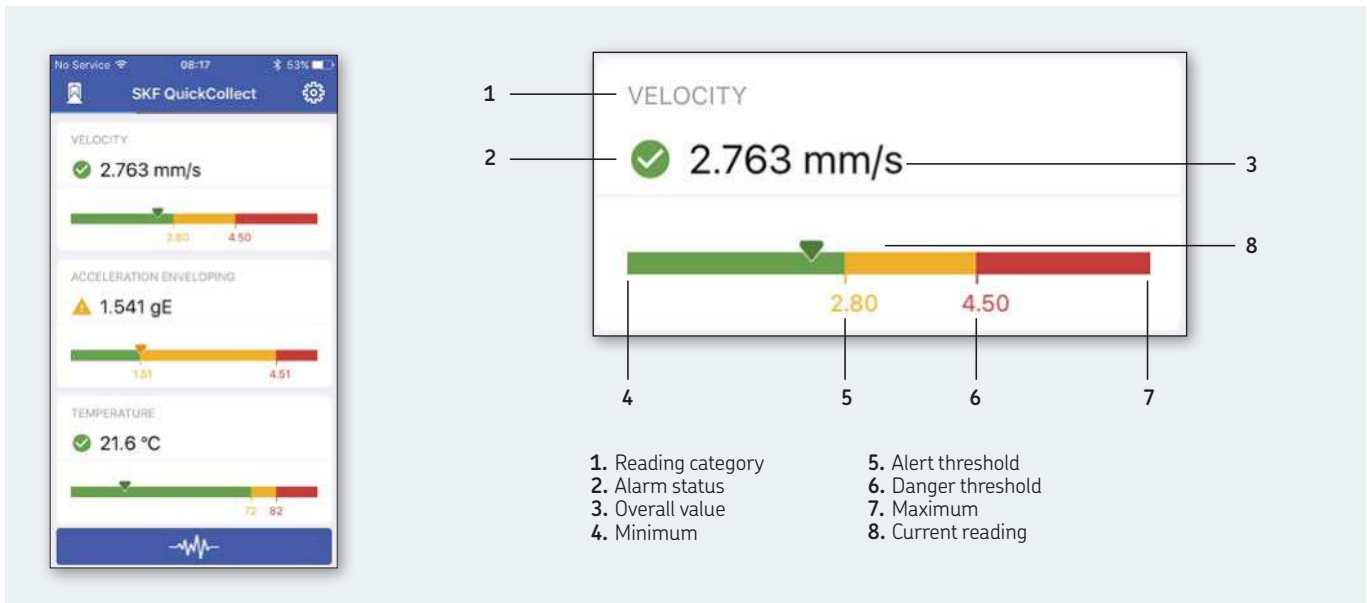


1. Power button – Powers the sensor on and off.
2. Battery LED – (Green, Red) Indicates status of battery charge
3. Communication LED – (Green, Red) Indicates whether the sensor is connected to an app. Also indicates when firmware updates are in progress.
4. All purpose check LED – (Green, Red, Amber) Indicates error conditions

## Measurement displays

Measurements taken by the sensor are shown on your mobile device, which displays velocity, enveloped acceleration and temperature as shown below:

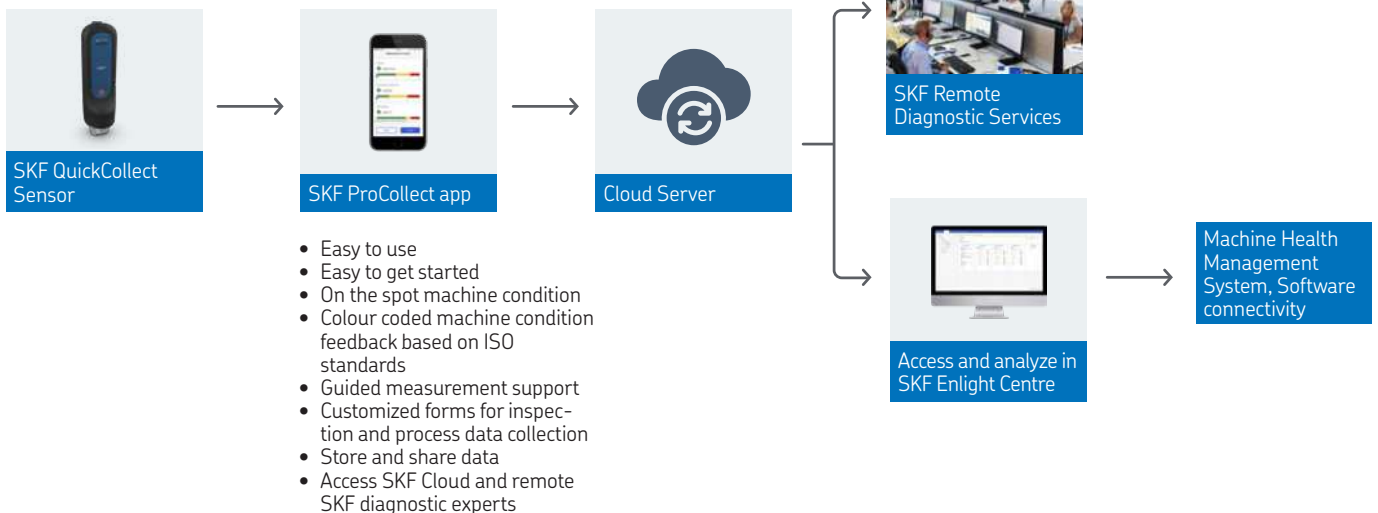
Each reading displays a current overall measurement, including alarm status, minimum and maximum values, and alert and danger thresholds.



## SKF Enlight ProCollect System

The SKF QuickCollect sensor can be used with the SKF QuickCollect app or SKF ProCollect app which provides additional functionality, including the ability to store and share data via the SKF cloud, and to directly access SKF Remote Diagnostic Services.

## SKF Enlight ProCollect



## Sensor specifications

### Environmental, regulatory and physical

Operating temperature range	-20 to +60 °C (-5 to +140 °F)
Storage temperature range	-20 to +45 °C (-5 to +115 °F) for less than one month -20 to +35 °C (-5 to +95 °F) for less than six months The above temperature/time limits are to avoid excessive self-discharge of the battery.
Charging temperature, range (sensor/charger)	0 to 40 °C (32 to 105 °F)
Humidity	95% non-condensing
Altitude	Up to 2 000 m (6 560 ft)
Drop test	1.8 m (6 ft) in accordance with MIL-STD-810G
Sensor IP rating	IP65 (Dust and water ingress protection testing standard.)
Radio approvals	Europe (CE), USA (FCC), Canada (IC)
CE Mark	CE-approved
Dimensions	45 x 45 x 135 mm (1.8 x 1.8 x 5.3 in.)
Mass	200 g (7 oz)

### Power

Sensor power source	Rechargeable lithium battery, 3.7V DC, 0.14 Ah
Battery lifetime	A full working day under normal usage reducing to half a working day when an external sensor is being used.
Charger	Input 100 to 240 VAC, 0.4 A, 47 to 63 Hz

### Measurement and analysis functions

Internal sensor frequency range	±5%: 5 Hz to 3 000 Hz ±10%: 3 Hz to 5 000 Hz ±3 dB: 1.4 Hz to 10 000 Hz The response is attenuating (3 dB down) at both frequencies
Overall velocity	10 Hz to 1 kHz up to 55 mm/s RMS
Bearing condition	SKF patented Enveloped acceleration gE Bands 2 and 3, up to 20 gE True Peak-to-Peak
Temperature	Built in infrared (IR) sensor Capable of measuring outside the QuickCollect operating temperature range and up to 100 °C for short periods.
Vibration Time Waveforms	Acceleration (g), Enveloped acceleration (gE) Sample rates: 256 Hz to 25.6 kHz Sample lengths: 256 to 8 192 samples
Spectrum/FFT	Acceleration (g), Velocity (mm/s), Enveloped acceleration (gE) Maximum frequency: 100 Hz to 10 kHz Resolution: 100 to 3 200 lines

Note that the full measurement and analysis capability shown above is only available for systems using the ProCollect app and Enlight Centre.

Vibration measurements apply equally to either the internal or an external sensor.

### External sensor support

External sensor types	2-wire, constant current, 100 mV/g accelerometers Supports ICP accelerometers. Provides 3 mA minimum.
Connection cable	SKF CMAC 8010 (IEPE). See also: External sensor setup.

## Ordering Information

### Standard kits

**CMDT 391-K-SL**  
CMDT 391 sensor  
CMAC 109 magnet  
CMAC 8004 power supply

**CMDT 391-PRO-K-SL**  
As CMDT 391-K-SL plus:  
CMAC 8010 accelerometer cable  
CMSS 2100 accelerometer  
CMAC 3715 BNC adaptor  
CMAC 8011 carry case

### Hazardous area kits

**CMDT 391-EX-K-SL**  
CMDT 391 Ex sensor  
CMAC 109 magnet  
CMAC 8007 power supply

**CMDT 391-EX-PRO-K-SL**  
As CMDT 391-EX-K-SL plus:  
CMAC 8010-EX accelerometer cable  
CMSS 786A-IS accelerometer  
CMAC 3715 BNC adaptor  
CMAC 8011 carry case

Contact your local SKF distributor for more information

[skf.com](http://skf.com) | [skf.com/cm](http://skf.com/cm)

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PUB CM/P2 17198/3 EN · October 2020

## Agency approvals for hazardous area

CMDT 391-Ex with CMAC 8010-Ex cable



Ex ib IIC T4 Gb  $-20^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$   
Class I, Zone 1, AEx ib IIC T4 Gb  $-20^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$   
IS Class I, Div. 2, Group A, B, C, D, T4



Ex ib IIC T4 Gb  $-20^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$