

SKF QuickCollect

Machine monitoring made easy



SKF QuickCollect

The SKF QuickCollect sensor is an easy-to-use Bluetooth-enabled handheld sensor that connects to iOS and Android apps on your tablet and smartphone. 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.

Benefits

- Gets you started quickly
- Can be used with minimum training and experience
- Instant feedback from vibration and temperature measurement
- Identify developing rotating machinery issues before they become problems
- Expand functionality via apps to grow and compliment your existing maintenance program
- Cost-effective and scalable entry-point for reliable rotation



SKF QuickCollect accessories



Description	Heading	Description	Specification
CMAC 109	Magnet base	The CMAC 109 is a compact magnetic base designed for SKF QuickCollect sensor. It has a 1/4-28 mounting hole to allow compatibility with sensor.	<ul style="list-style-type: none"> Diameter: 25mm (1 in) Mounting hole: 1/4-28 Pull strength: 14kg (30 lbs) Magnet material: Neodymium
CMAC 3715	Cable converter, two pin MIL to BNC	The CMAC 3715 adapter, when combined with CMAC 8010 or CMAC 8010 accelerometer cable allows the SKF QuickCollect sensor to connect to any male BNC connector. The adapter does not block DC signals, so the user must be careful to avoid applying power to a buffered signal output.	<ul style="list-style-type: none"> Connectors: Two pin MIL to BNC Length: 8.5 cm (3.35 in)
CMAC 8004	Power supply for CMDT 391 sensor	The CMAC 8004 universal power supply is used to charge the battery within the SKF Quickcollect sensor. It comes with USA, UK, AUS and EURO adapter plugs. Not to be used in hazardous environments.	<ul style="list-style-type: none"> 100 to 240 V ac input Length: 1.5 m (4.11 ft) cable
CMAC 8007	Power supply for CMDT 391-EX sensor	The CMAC 8007 universal power supply is used to charge the battery within the SKF Quickcollect sensor Ex. It comes with USA, UK, AUS and EURO adapter plugs. Not to be used in hazardous environments.	<ul style="list-style-type: none"> 100 to 240 V ac input Length: 1.5 m (4.11 ft) cable For CMDT 391-EX sensor
CMAC 8010	Coiled input extension cable, 2m (6.6 ft)	The CMAC 8010 extension cable is coiled with integrated circuitry that allows the SKF QuickCollect sensor to connect to a CMSS 2100 accelerometer. Not to be used in hazardous environments.	<ul style="list-style-type: none"> Connector: Two pin MIL Length: 2m (6.6 ft)
CMAC 8010-EX	Coiled input extension cable, 2m (6.6 ft)	The CMAC 8010-EX extension cable is coiled with integrated circuitry that allows the SKF QuickCollect Ex sensor to connect to a CMSS 786A-IS accelerometer. Suitable for hazardous environments.	<ul style="list-style-type: none"> Connector: Two pin MIL Length: 2m (6.6 ft) For CMDT 391-EX sensor
CMAC 8011	Carry case, hard shell	The CMAC 8011 hard carrying case that includes foam cutouts for the SKF QuickCollect sensor and accessories.	<ul style="list-style-type: none"> Two securing clips Rugged ABS design

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	2.0 m (6.6 ft), CMDT 391 and CMDT 391-EX in accordance with ANSI 12.12.03.
Sensor IP rating	IP65 (Dust and water ingress protection testing standard.)
Country certification	Europe (CE), USA (FCC), Canada (IC) both for CMDT 391 and CMDT 391-Ex; Korea (KCC) and Argentina (ENACOM) only for CMDT 391
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, 3.7 V 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 V AC, 0.4 A, 47 to 63 Hz

3-in-1 measurements and analysis

Overall velocity	10 Hz to 1 kHz, from 0.5 mm/s up to 55 mm/s, RMS, Resolution: 400 lines
Bearing condition	SKF Enveloped acceleration, gE Band 3, 1.4 Hz to 2 000 Hz, from 0.5 gE up to 20 gE true Peak-to-Peak, Resolution: 800 lines
Temperature	Built in (IR) sensor, capable of measuring outside operating temperature range and up to 100 °C for short periods.

Configurable measurement and analysis - Enlight ProCollect App and Enlight centre only

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 from 0.5 mm/s up to 55 mm/s RMS
Bearing condition	SKF Enveloped acceleration gE Bands 2 and 3, from 0.5 gE up to 20 gE true Peak-to-Peak
Temperature	Built in infrared (IR) sensor Capable of measuring outside the 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 Enlight 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), maximum cable length 10 metres. See also: External sensor setup.

Ordering Information

Standard kits

CMDT 391-K-SL includes:
1 pcs CMDT 391 sensor
1 pcs CMAC 109 magnet
1 pcs CMAC 8004 power supply

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

Hazardous area kits

CMDT 391-EX-K-SL includes:
1 pcs CMDT 391-EX sensor
1 pcs CMAC 109 magnet
1 pcs CMAC 8007 power supply

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

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Agency approvals for hazardous area

CMDT 391-Ex with CMAC 8010-Ex cable



Ex ib IIC T4 Gb -20 °C ≤ Ta ≤ +60 °C
Class I, Zone 1, AEx ib IIC T4 Gb -20 °C ≤ Ta ≤ +60 °C
IS Class I, Div. 2, Group A, B, C, D, T4



Ex ib IIC T4 Gb -20 °C ≤ Ta ≤ +60 °C