

SKF

SMART MACHINE MONITORING

SKF QuickCollect



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The new improved QuickCollect CMDT 392 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
- Fast feedback from vibration and temperature measurement, typically up to 4 times faster than previous series sensors
- Quickly 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 392 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) Battery lifetime can be affected by exposure during a long period of time to extreme temperatures mentioned above. In that case, it is recommended to recharge the battery before any measurement.
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 392 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 392 and CMDT 391-EX
Dimensions	45 x 45 x 135 mm (1.8 x 1.8 x 5.3 in.)
Mass	220 g (7.8 oz)
Wireless	CMDT 392, bluetooth version 5.0, nominal range up to 20 m depending on environment. CMDT 391-EX, bluetooth version 4.0. nominal range up to 10 m depending on environment.

Power

Sensor power source	Rechargeable lithium battery, 3.7 V DC. 0.45 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



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Configurable measurement and analysis – SKF QuickCollect App, Enlight ProCollect App and Enlight Centre

Internal sensor frequency range	+/-5%: 5 Hz to 3000 Hz +/-10%: 3 Hz to 5000 Hz +/-3dB: 1 Hz to 10000 Hz The response is attenuating (3dB down) at both frequencies
Acceleration (g)	0 Hz to 10 kHz, overall true peak-to-peak, RMS and peak, up to 50 g
Velocity (mm/s)	0 Hz to 10 kHz, overall true peak-to-peak, RMS and peak, up to 55 mm/s RMS
SKF Enveloped Acceleration (gE)	Bands 2 and 3, true peak-to-peak, up to 20 gE
Temperature	Built in infrared (IR) sensor to be used with the magnet. Capable of measuring outside the operating temperature range and up to 100 °C +/- 2 °C for short periods
Vibration time waveforms	Sample rates: 256 Hz to 25.6 kHz Sample lengths: -> 256 to 8192 samples for Enlight ProCollect App and Enlight Centre -> 256 to 32 768 samples for SKF QuickCollect App and CMDT 392 (256 to 8192 for CMDT 391-EX)
Spectrum / FFT	Maximum frequency: 100 Hz to 10 kHz Resolution: -> 100 to 3200 lines for Enlight ProCollect App and Enlight Centre -> 100 to 12800 lines for SKF QuickCollect App and CMDT 392 (100 to 3200 for CMDT 391-EX)
High Pass Filter option	0, 2, 10, 70Hz for Acceleration and Velocity Off for Enveloped Acceleration
Default configuration in SKF QuickCollect Mobile App	Overall velocity from 10 Hz to 1 kHz, Resolution: 800 lines for CMDT 392 and 400 lines for CMDT 391-EX SKF Enveloped acceleration, gE Band 3, 1.4 Hz to 2000 Hz, Resolution: 1600 lines for CMDT 392 and 800 lines for CMDT 391-EX. Built in (IR) sensor, capable of measuring outside the operating temperature range and up to 100 °C for short periods.


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.

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

Ordering Information

Standard kits

CMDT 392-K-SL includes:

1 pcs CMDT 392 sensor
1 pcs CMAC 109 magnet
1 pcs CMAC 8004 power supply

CMDT 392-PRO-K-SL includes:

As CMDT 392-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

