SKF Pulse™

Your entry point to predictive maintenance.



SKF Pulse combines the easy-to-use, portable SKF QuickCollect sensor with the SKF Pulse free mobile app for iOS and Android to monitor machine health and quickly identify machinery issues before operations are impacted. Acting as a smart vibration tool, the sensor transmits wirelessly to the SKF Pulse app, instantly providing intuitive machine diagnostics.

Machine monitoring made easy.

- **Easy-to-use, portable** QuickCollect sensor and a free mobile app
- **Easy start-up** with no prior training or experience needed
- **Quickly monitors machine health** and helps identify machinery issues before operations are impacted
- **Instant feedback** from vibration and temperature measurement
- **In-app SKF Pulse™ Checks** provide expert analysis, advice and diagnostic reports from SKF
- All at a **cost-effective price point** – no need to make the case for capital expenditure
- Access to **SKF Engineering support** and **SKF E-Learning**

SKF QuickCollect Sensor features:

- Velocity, acceleration and temperature measurements
- Bluetooth® communication with iOS and Android devices
- Rugged, industrial design: drop test at 6 ft (1.8 m), water- and dust-resistant (IP65)
- Rechargeable lithium battery (8 hours with normal usage)
- One year warranty covering manufacturing defects
- Two year calibration certificate
- Available for use in hazardous areas with the CMDT391-EX model

For more information, contact your SKF Representative or visit skfusa.com/skfpulse.

Download on the App Store

GET IT ON Google Play

Sensor 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 sensor connection status to app and when firmware updates are in progress

4 **All-purpose check LED –** For future use

Four SKF QuickCollect models now available!

CMDT 391-K-SL:
Standard Sensor

CMDT 391-PRO-K-SL:
Standard Sensor with carrying case and accessories

CMDT 391-EX-K-SL:
Hazardous Area Sensor

CMDT 391-EX-PRO-K-SL:
Hazardous Area Sensor with carrying case and accessories

Technical specifications for SKF QuickCollect sensor

Regulatory specifications

IP rating	IP 65, dust and water ingress protection testing standard
Radio approvals	Europe (CE), USA (FCC), Canada (IC)
CE mark	CE approved

Measurement range

Overalls

Velocity	10 Hz to 1 kHz up to 2.17 in/s (55mm/s) Recommended speed range: 600 rpm - 3600 rpm
Bearing condition	SKF patented envelope acceleration up to 20 gE

FFT

Maximum frequency	Velocity 1 kHz, enveloped acceleration 2 kHz
Lines of resolution	Velocity 400, enveloped acceleration 800
Detection type	Velocity RMS, enveloped acceleration true peak to peak
Temperature	Standard operating temperature range is -5 to +140°F (-20 to +60°C). Sensor is capable of measuring beyond the standard SKF Pulse operating temperature range up to 212°F (100°C) for short periods.

Power

Main power	Rechargeable lithium battery, 3.7 V DC, 0.14 A
Battery lifetime	Eight hours with normal usage Manual power off: Press and hold power button for 3+ seconds Auto power off: After 15 minutes of no activity
MAINS supply voltage, charger	Varies up to ±10% of the nominal voltage, TRANSIENT OVERVOLTAGE CATEGORY II; POLLUTION DEGREE 2
Charger AC adapter	Input 5 V DC ±10%, 1 A Input 100 to 240 V AC, 0.4 A, 47 to 63 Hz Output 5 V DC, 1.6 A

Environmental

Storage temperature	-5 to +115 °F (-20 to +45 °C) for less than one month -5 to +95 °F (-20 to +35 °C) for less than six months
Operating temperature, built in infrared (IR) sensor	-5 to +140°F (-20 to +60°C)
Operating temperature, battery	32 to +105 °F (0 to +40 °C) for charging -5 to +140 °F (-20 to +60 °C) for discharging
Operating temperature, charger	32 to +105 °F (0 to +40 °C)
Altitude	Up to 6,560 ft (2,000 m)
Humidity	95% non-condensing

Physical

Case	Water and dust resistant (IP65)
Drop test	6 ft (1.8 m) in accordance with MIL-STD-810G
Dimensions	1.8 x 1.8 x 5.3 in (45 x 45 x 135 mm)
Weight	7 oz (200 g)

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).

Ordering information

Standard kits

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

CMDT 391-PRO-K-SL
CMDT 391-K-SL kit 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

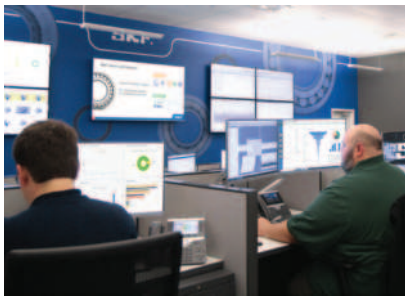
CMDT 391-EX-PRO-K-SL
CMDT 391-EX-K-SL kit plus:
CMAC 8010-EX accelerometer cable
CMSS 786A-IS accelerometer
CMAC 3715 BNC adaptor
CMAC 8011 carry case



Measure vibration and temperature



Monitor asset health



On-the-spot access to SKF analysis experts



SKF Pulse Check reports

For more information, contact your SKF Representative, email skf.connected@skf.com or visit skfusa.com/skfpulse.

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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