SKF Microlog Analyzer dBX

Handheld data collector and analyzer

Large screen.
Fast measurements.
Easy to use.

Data collection and analysis the way you want it

The SKF Microlog Analyzer dBX has been developed with users in mind. This is why it has a large screen, developed for efficient analysis in the field. This is why it has SKF's most powerful processing power for fast measurements and the ability to perform analyses on the device. This is why it is more user-friendly than ever.

Our largest screen

The SKF Microlog Analyzer dBX has a 10.1-inch high-resolution touch screen. It can display up to 6 measurement windows at once and has been designed for easy viewing in any light condition.

Fast measurements with MPA-in-a-flash

Multi-Point Acquisition (MPA) is SKF's fastest vibration analysis method. It is typically three times faster than the previous Microlog series, saving you time spent on taking measurements. For even faster data collection, the SKF Microlog Analyzer dBX can take simultaneous tri-axial measurements.

Easy to use

New, improved user interface makes the SKF Microlog Analyzer dBX easier to learn and use than the previous model. Getting you started quickly, with minimum training.

Handle with or without gloves

Physical backlit keypad and touch screen control.

Advanced on-device data analysis

Possibility to perform data analyses on the device, without the need to use an external computer. Equipped with SKF gE enveloping to determine the condition of rolling element bearings.

Large storage memory

256 GB of memory. Enough storage to meet your individual analysis needs.

Designed for field work

Rugged design for reliability in industrial environments. Dust and water-ingress protection to IP65. Onboard camera and RFID reader to assist in identifying rotating machinery location.

Hours of power

Interchangeable and rechargeable battery supports up to 8 hours of continuous data collection.

Ready for standalone or online work

The SKF Microlog Analyzer dBX can be used as a standalone tool, taking measurements and analysing data from rotating machinery to determine machine health. It can also be connected to SKF monitoring software, such as the SKF @ptitude Analyst, to handle analysis, on-premises and remote data storage, and download predefined measurement routes to the dBX.

Microlog dBX
with dedicated tools

Rotating machine equipped with sensor
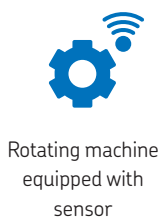
Delivers vibration signal representative of machine health

Upload of data, download of routes to the dBX

SKF online service. Upload of data to wider capability/storage system remote or on-premises

Standard or extended version

The SKF Microlog Analyzer dBX is available in two versions. The standard version has three main tools – SKF Data Collector, SKF dBX Analyzer and SKF Balancing – all you need for most data collection and fault-tracing tasks.

The extended version has the same tools as the standard version but has four additional tools for more embedded analysis capability. The extra tools are SKF RunUp CoastDown, SKF Order Tracking, SKF Data Recorder and SKF Orbit Analysis.

Standard version
CMVA 90-M-CK-SL

- Data Collector
- dBX Analyzer
- Balancing
- gE Enveloping
- Bump Test
- ODS Analysis

Extended version
CMVA 90-F-CK-SL

- Data Collector
- dBX Analyzer
- Balancing
- gE Enveloping
- Bump Test
- ODS Analysis
- RunUp CoastDown
- Order Tracking
- Data Recorder
- Orbit Analysis

Built-in tools

The SKF Microlog Analyzer dBX hardware is available with a number of valuable software tools.

SKF Data Collector
Collect data based on defined routes, measurement points and sensor set-up.

SKF dBX Analyzer
Collect measurements and perform additional analysis.

SKF Balancing
Balance different types of rotating machines with step-by-step guidance.

SKF gE Enveloping
Determine the condition of rolling element bearings using SKF analysis algorithms.

SKF RunUp CoastDown
Used to search for dangerous resonances during machine start-up or shut-down.

SKF Bump Test
Look for structural resonances in machinery and installations (using a hammer).

SKF ODS Analysis
Determine structural resonances in machinery and installations using Operational Deflection Shape analysis.

SKF Order Tracking
Perform (harmonic) order-based vibration analysis suitable for variable speed machinery.

SKF Data Recorder
Record long real-time measurements and playback to investigate rotating machinery issues.

SKF Orbit Analysis
Visualise rotational behaviour of a rotating shaft. Often used to diagnose faults in machinery with oil-film bearings.

Technical specifications for SKF Microlog Analyzer dBX, CMVA 90

Measurements

Input channels:	4 analogue input channels with IEPE bias voltage, tacho channel with built-in power supply for laser tachometer
Data acquisition:	24-bit A/D converter (>90 dB dynamic range)
Max. bandwidth:	40 kHz (102.4 kHz sampling rate)
Accuracy:	± 2.5% of full scales range
Measurements parameters:	acceleration, velocity, displacement, SKF gE bearing condition, phase, voltage, and speed
Multi-point automation:	Up to 12 measurements can be listed for one button push automated data collection at each measurement location

Environmental

Operating temperature:	–10 to +50 °C (13 to + 122 °F)
Storage temperature:	–20 to +60 °C (–4 to + 140 °F)
IP rating:	IP65 dust and water ingress to EN 60529 specification
Rugged:	1.2 m (4 ft) drop test to MIL STD 810 specification
Approvals:	CE, UKCA, KC, RCM

Physical

Dimensions:	300 x 195 x 50 mm (11.8 x 7.7 x 1.97 in)
Weight:	1.9 kg (4.2 lbs), 1.7 kg using single battery
Keypad:	Backlit keys, up, down, right and left, OK, cancel, menu key, right click, cursor toggling, zoom, start/stop measurement key, power on/off
Connectors:	BNC on 4 input channels, 6-pin Fischer, 7-pin Fischer (Microlog CMXA series compatible)
LCD screen:	10.1 in. multi-point colour touch screen, 1280 x 800 pixels, for indoor and outdoor use
Camera:	built-in, rear facing camera
RFID tag reader:	built-in, located on rear
PC interface:	USB A-type connector

Power source

Power:	2x Lithium-ion polymer rechargeable/ swappable batteries
Battery:	up to 8 hours

Ordering information

CMVA 90-M-CK-SL kit includes:

- CMVA 90-M Microlog dBX, programmed with SKF DataCollector, SKF dBX Analyzer and SKF Balancing applications, 256 GB on-board storage
- CMAC 9001 Universal power supply with 4 power cords
- CMAC 9002 Power adapter cable
- CMAC 9005 Two (2) batteries
- CMAC 9010 USB A-Type to A-Type communications cable
- CMAC 9015 SKF branded carry case
- CMAC 9016 Two (2) hand-straps
- CMAC 9017 Neck-strap
- CMSS 2200 General purpose accelerometer, cable and magnet mount
- Certificate of calibration and conformance

CMSS 1500-K sensor kit includes:

- General purpose, 100 mV/g accelerometer
- Accelerometer coiled cable, BNC connector
- Magnet with fixing bolt
- Certificate of calibration

CMVA 90-F-CK-SL kit includes:

- CMVA 90-F Microlog dBX, programmed with SKF DataCollector, SKF dBX Analyzer and SKF Balancing, SKF Order Deflection Tracking and SKF Raw data recorder applications, 256 GB on-board storage,
- CMAC 9001 Universal power supply with 4 power cords
- CMAC 9002 Power adapter cable
- CMAC 9005 Two (2) batteries
- CMAC 9010 USB A-Type to A-Type communications cable
- CMAC 9015 SKF branded carry case
- CMAC 9016 Two (2) hand-straps
- CMAC 9017 Neck-strap
- CMSS 2200 General purpose accelerometer, cable and magnet mount
- Certificate of calibration and conformance

Add the accessories you need

A number of accessories are available to complement the SKF Microlog Analyzer dBX. To allow for maximum application flexibility, the device is not supplied with vibration sensors or cables in the box, but these can be ordered separately.

skf.com/microlog-dbx

Certain image(s) used under license from Shutterstock.com.