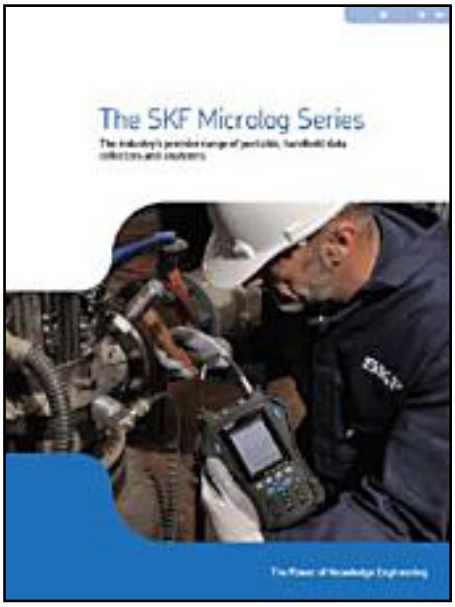

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The SKF Microlog Series

The industry's premier range of portable, handheld data collectors and analyzers

The Power of Knowledge Engineering

Putting the power of SKF knowledge engineering into your hands

Backed by more than a century of leadership in the design and manufacture of bearings, SKF has an unparalleled understanding of rotating machinery.

And over the last 30 years, our R&D Engineers have leveraged every bit of this expertise as they pioneered many of the world's leading condition monitoring tools and technologies. These SKF innovations – which include the SKF Microlog Series of portable data collectors and analyzers – have made it much easier to collect, analyze, use, and share machine condition data.

The right tools for virtually any predictive maintenance job

By enabling users to migrate from time-based to condition-based maintenance, the SKF Microlog Series can help plants eliminate the risk of unplanned downtime, reduce operational costs, and optimize manpower resources.

The range includes route-based instruments which work with powerful SKF predictive maintenance software systems, and stand-alone instruments that offer on-the-spot advice and signal analysis capabilities.

So, whether your condition monitoring program is just getting started or moving to the next level, the SKF Microlog Series can handle all of the tasks required to perform maintenance on a wide range of rotating machinery. Along with unmatched versatility, reliability, and functionality, SKF Microlog units feature:

- **Data capture from a range of sources**
- **Additional functionality via application-specific firmware modules**
- **Rugged, ergonomic design**
- **128 MB flash memory***
- **PXA320 processors***
- **Windows CE OS**

*** Except for the 51-IS**

SKF's in-depth knowledge of rotating equipment is reflected in the Microlog series. With the SKF Microlog Series, you can reduce maintenance costs while improving machine reliability.

Table of contents:

- SKF Microlog Analyzer GX Series
- SKF Microlog Analyzer AX Series
- SKF Microlog Analyzer CMXA51-IS
- SKF Microlog Advisor Pro
- SKF Microlog Consultant
- SKF Monitoring Software
- Product Support Plan

SKF analysis modules

Customize your programme functionality with firmware modules

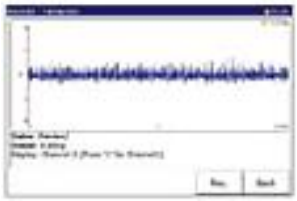
The SKF Microlog family of portable instruments are complemented by a wide range of application specific firmware modules. These firmware modules are bundled with some models/kits to suit your needs, or can be added as required, extending the functionality of your SKF Microlog without the need to purchase a new instrument.

Check to Conformance module

An automated assessment compares vibration levels with established limits, and a pass or fail indication is displayed to check that the product complies with predefined quality indicators or required standards

Bump test module

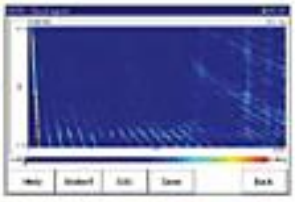
A bump or rap test is an impact test carried out to excite the machine and measure its natural frequencies. This helps to determine if resonance is responsible for high noise or vibration levels or if there is a potential machinery problem.



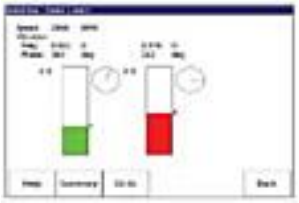
Data recorder module

Signals from sensors connected to the Microlog are digitally recorded and stored as standard time waveform (WAV) files. These files can be sent via e-mail or transferred to a computer for post processing in external software.

Run up Coast down module



This module records and analyzes data from machines where noise or vibration levels are changing with speed, time or load to establish the critical/resonant speeds of a machine. The module simultaneously acquires a noise or a vibration signal plus a tachometer signal and stores the data as a time waveform (WAV) file for further analysis.

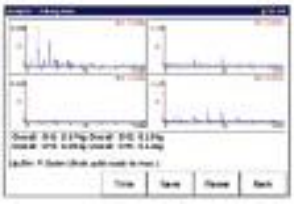


Balancing module

This module allows precision balancing of rotating machinery across a wide range of speeds. It performs single plane, two-plane, and static-couple balancing with high precision. Clear, comprehensive setup menus and easy-to-follow display screens with graphical data representation allow easy operation.

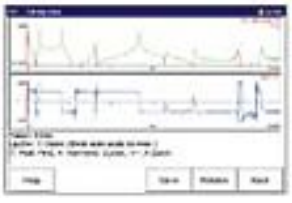
Spindle Test module

Developed in conjunction with the SKF Spindle Services, the Spindle Test module performs nine tests on machine tools and spindles, including imbalance, mechanical condition, bearing condition, tool nose runout, clamp force (ISO, HSK), clamp EM, belt tension, speed accuracy and resonance frequency.



FFT analyzer

The module allows you to quickly set up spectral phase measurements and immediately collect the data for in the field FFT spectrum and phase analysis purposes. After collection, the data may be stored in the Microlog for future review and can be transferred to a computer for additional analysis, reporting or storage.



Frequency response function module

This module has two primary functions: Establishes the properties of mechanical structures (mass, stiffness and damping) by performing modal analysis using a calibrated hammer for the excitation.

Measures and displays the transfer function (ratio) between two accelerometers while a machine is running. Measurements can be exported to external software to calculate and animate the Operating Deflection Shapes.

SKF Microlog Analyzer GX

Route-based, one-to-three channel data collector/FFT analyzer

Developed for maintenance engineers in a range of industries, the SKF Microlog Analyzer GX series are high performance, one-to-three channel, route-based data collectors/FFT analyzers. Three-channel, simultaneous triaxial input with separate tachometer input enables faster and more comprehensive data collection, without adding more collection time.

For even faster data collection, users can configure up to 12 measurements for automatic data collection at one measurement location, sensor, and the press of one button.

The modular design of the GX series offers customers the option to upgrade and expand functionality without having to buy another instrument. Accessories are inter-changeable between models. Because the entire Microlog product line uses the same high speed processor, digital boards and firmware; with the ease of entering a license key, units can be upgraded to more advanced models.

The SKF Microlog Analyzer GX is available in the following range of models, each with different features and functionality to meet your specific needs:

- GX-R: Single-channel, single-route measurements
- GX-M: Two-channel route measurements, and one- or two-plane static or dynamic couple balancing applications
- GX-S: All the features of the GX-M, along with bump test and data recorder modules

SKF Microlog Analyzer AX

Route-based, four-channel data collector/FFT analyzer

The SKF Microlog Analyzer AX series offers simultaneous triaxial or four-channel vibration measurement capabilities, with fast real-time rate and display updates, all viewed on a vivid 6.4" VGA color display for easy viewing in any light. The result is fast data collection, saving valuable time and money in condition monitoring rounds.

The SKF Microlog Analyzer AX is available in the following models, each with different features and functionality to meet your specific needs:

- AX-M: Four channel off-route/two channel or simultaneous triaxial route Analysis and two channel Balancing modules are already installed. The AX-M is upgradable to the AX-S or AX-F.
- AX-S: All the features of the AX-M with the Bump Test and Data Recorder modules added.
- AX-F: Further enhances capability by adding Run up Coast down (RuCd), Frequency Response Function (FRF) and Conformance Check modules.

SKF Microlog CMXA 51-IS

Proactive maintenance and data collection in hazardous areas

The SKF Microlog Analyzer CMXA 51-IS takes portable data collection and analysis into the most hostile of environments. With ATEX Zone 0 certification, the SKF Microlog 51-IS is ideal for proactive maintenance programmes within petrochemical, oil and gas facilities, water treatment or pharmaceutical plants, or any plant where potentially explosive atmospheres preclude the use of all but the most highly certified electronic instrumentation. The 51-IS is a route-based instrument, which interfaces like all route-based SKF Microlog products to SKF @ptitude Analyst for detailed post processing and analysis.

Key features

- ATEX certification: II 1G EEx ia IIC T4 (Ta –20 °C to +50 °C)
- Complete system includes an ATEX approved sensor
- 1/4 VGA (240 x 320) backlit monochrome touch screen LCD
- Intuitive user interface with left or right hand operation and context sensitive “Help” function
- Four cursor keys, and numeric keypad for easier screen navigation and user input
- Patented SKF technology; Acceleration Enveloping (gE) technology for bearing assessment
- Red, Amber, Green LED indicators
- One data acquisition and one phase channel for compatibility with ICP™ accelerometers, velocity transducers, displacement probes, infrared temperature sensors, photo-optical pick-ups, DC inputs and manual entry
- WindowsCE operating system

SKF Microlog Advisor Pro

Stand-alone, three-channel unit puts expert knowledge in your hands

The SKF Microlog Adviser Pro gives maintenance, service and quality inspection technicians on-the-spot, fast and easy to understand machine condition diagnosis. This 'stand-alone' device does not rely on prior measurement data, and does not require advanced PdM software. As a result, users can immediately benefit from a proactive maintenance approach without the need for vibration expertise, or prior setup of an advanced PdM route-based system.

Designed for use by expert and novice-level users alike, the Advisor Pro is ideal for service, maintenance, inspection, and diagnostic applications. This three-channel, portable maintenance tool combines an intuitive user interface, simple wizard-driven measurement instructions, and an automated analysis system based on pre-programmed ISO standards. Green, yellow and red color-codes quickly and clearly indicate test status, invalid or abnormal measurements, and machinery condition.

The following pre-configured, application-specific kits are available, each including all associated accessories and sensors, and application specific modules:

- CMXA 45-1A-SL: Conformance Test kit includes the Conformance Check module, full suite of SKF test templates, standard accessories and one accelerometer with integral cable.
- CMXA 45-2A-SL: FFT Analyzer and Bump Test kit includes the FFT Analyzer and Bump Test modules, standard accessories and two accelerometers with integral cables.
- CMXA 45-BAL-K-SL: Balancing kit includes the Balancing, FFT Analyzer and Bump Test modules, Analysis and Reporting module, standard accessories, CMAC 5030-K Laser tachometer kit, phase reference magnetic holder and two accelerometers with integral cables.
- CMXA 45-MTX-K-SL: SKF Spindle Assessment Kit includes Spindle Test, Balancing, and Run up Coast down modules, standard accessories, two accelerometers with integral cables, laser tachometer kit, laser tachometer mount, run-out gage (Graduation 0,001 mm, range 0,14 mm, reading 0-70-0, accuracy 3 µm), belt tension checkers, Machine Tool Spindle Assessment guide (on CD).

SKF Microlog Consultant

Stand-alone, four-channel vibration analyzer takes both complex signal analysis and automated diagnostics into demanding environments

The SKF Microlog Consultant is a stand-alone, four-channel vibration analyzer, delivering both sophisticated dynamic signal analysis and an automated diagnosis expert system in a single rugged, Class 1 Div 2 and IP 65 rated unit that can go virtually anywhere.

As a high-end signal analyzer for expert users, the Consultant offers the performance and features of PC-based alternatives in a portable instrument designed to cope with demanding industrial environments.

In the hands of quality and repair technicians, the Consultant delivers on-the-spot, fast and easy to understand machine condition diagnosis, and production test quality indications.

Key features

The SKF Microlog Consultant comes fully loaded with the following range of application modules, allowing users to perform several advanced tasks, such as impact tests, digital recording, modal analysis, transient phenomena analysis and quality inspections – all with the same device:

- Balancing
- Bump Analysis
- Recorder
- Frequency Response Function
- Run up/Coast down
- Check to Conformance
- FFT Analyzer

Monitoring Software Systems

An integrated platform for turning data into actionable intelligence

SKF @ptitude Analyst

SKF @ptitude Analyst is a comprehensive software solution with powerful diagnostic and analytical capabilities, designed for use with SKF Microlog route-based instruments (SKF Microlog Analyzer AX, GX and 51-IS.) With the ability to view data from different sources using the same application, @ptitude Analyst provides fast, efficient and reliable storage, analysis, and retrieval of complex asset information and makes the information accessible throughout your organization.

Whether it is condition monitoring data collection or in-depth vibration analysis, SKF @ptitude Analyst easily scales to your specific needs. It integrates with the SKF Microlog Series of analyzers, and incorporates data from other sources, such as OPC servers. Additionally, it seamlessly interfaces with your organization's Computerized Maintenance Management System (CMMS), Enterprise Resource Planning (ERP) or other information management systems.

SKF @ptitude Analyst provides one software program to manage asset condition data from portable and online devices. Its integrated platform forms the hub to share information, foster teamwork, and facilitate consistent and reliable decision-making across functional departments.

SKF Analysis and Reporting Module

SKF's Analysis and Reporting module is a PC-based software application for transferring, displaying and analyzing data collected by the SKF Microlog stand-alone instruments (SKF Advisor Pro and Consultant). It also can be used by route-based specific modules. It provides an easy mechanism for uploading data from your instrument. Once uploaded, the data is automatically shown in the application main window, and a single mouse click is all that is needed to view the data in a powerful, interactive graphical plot.

The Analysis and Reporting module also provides you with a range of post-processing features that allow you to get the most out of your application module data.

Key features

- Digital Signal Processing window – enables post processing of time waveform (.wav) data using Fast Fourier Transform (FFT) routines into Spectrum or Waterfall plots
- File download management – specify file locations on your PC or network; data is sorted by date/time and module type when it is uploaded
- Import of Conformance Check module results, including the report table with the machine graphic, as well as the spectral results files
- Import of Run up Coast down (RuCd) module data files, including the original .wav recording and the CSV result files
- Export of data to UFF (type 58) files allowing easy import into structural analysis packages
- Batch exporting of data into Microsoft Excel, allowing consolidation of multiple measurements into a single workbook with multiple tabs, or separate workbooks

Product Support Plans (PSP)

Extend your warranty and access to SKF technical support

SKF is committed to providing the highest degree of customer support in the industry. Product Support Plans extend the standard product warranty for an additional length of time to continue your unlimited access to Technical Support, global repair coverage and more.

Protect your investment

Product Support Plans ensure that your equipment is maintained to the highest standards. Condition monitoring products are an investment and there is no better way to protect your investment for years than with a Product Support Plan, which consist of:

- Firmware and/or software upgrades keep your products advancing with current industry standards*
- Unlimited technical support from knowledgeable professionals that can save you time and frustration by quickly resolving problems
- Data accuracy with unlimited calibrations that comply with ISO standards
- Loaner equipment supplied when your product is brought in for service*
- Hassle-free repairs. We've got you covered with parts, labor and shipping.

Premier product support plans also include a full SKF @ptitude Exchange subscription. SKF @ptitude Exchange is SKF's knowledge portal, complete with white papers, articles, interactive services, tutorials and more – available 24 hours a day to help build your staff's asset maintenance and reliability expertise.

* Provided with Premier PSP coverage.


SKF

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