

ComPro2000™

PORTABLE, HIGH-SPEED COMMUTATOR PROFILER

DISTRIBUTED BY MERSEN

SERVICES / TOOLS & MEASURING DEVICES



The new ComPro2000™ distributed by Mersen is a portable diagnostic tool to quickly and easily determine the health of your motor's commutator.

The ComPro2000™'s exclusive non-contact profiling method will take a few minutes to get a commutator profile while typical contact-based methods will require you to shut down your production process to obtain the measurement.

With minimal downtime, the ComPro2000™ can gauge the health of your motor or generator commutator during operation.

The ComPro2000™'s non-contact measurement technology:

- allows profile measures under normal operating conditions
- is not affected by speed, temperature, voltage, current, surface and airborne contamination
- measures the static profile (profile obtained with a contact-based measurement)
- measures the dynamic profile for abnormal conditions (poor commutation, poor commutator life, excessive commutator maintenance, and poor brush life) even when the static profile is acceptable

MERSEN

ComPro2000™

More about the ComPro2000™

- The key to the ComPro2000™'s ability to achieve a non-contact profiling is the combination of its unique capacity to sense the commutator's geometry and to extract critical measurement information from each individual commutator segment as well as the commutator as a whole, while the motor or generator is running at full speed.
- Since the ComPro2000™ can sample the commutator surface at a frequency of up to 1 MHz, commutator profiles can be obtained at surface speeds greater than 1,500" per second.
- The ComPro2000™ automatically determines the proper sampling frequency without prior knowledge of motor speed or commutator diameter.
- Additionally, the ComPro2000™ can determine the number of commutator segments the commutator is made of as well as the motor speed.

The ComPro2000™ system includes:

- > a measurement module with integrated carrying case for portable operation
- > a 3 meter cable/probe assembly
- > a magnetic-mount probe holder
- > a USB cable
- > the ComSoft2000™ Windows-based software



Portable applications:

It is recommended to attach the measurement module to a notebook PC via the included USB cable.

Stationary applications:

The measurement module can be attached to any Windows-based PC having a USB port. The USB port must be USB 2.0 compliant.

ComSoft2000™ software:

Included with the ComPro2000™, the ComSoft2000™ is a Windows-based software that makes the process of profiling a commutator effortless for even novice PC users. Dynamic profiles are achieved through only 3 simple steps...

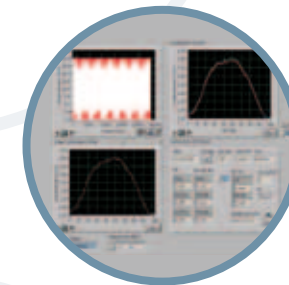
> Step 1 Set up the hardware

First mount the transducer close to the commutator. This is an easy operation, you just have to fix the magnetic base supporting the probe to the machine.



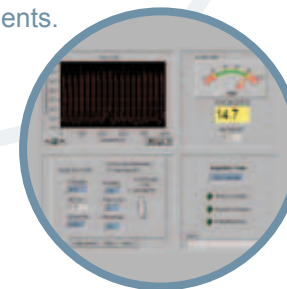
> Step 3 View the results

Once the data has been processed, the results are displayed on the tab to the right. In addition to having the statistical measurements (Total Indicated Runout, Max and Average Bar-to-Bar, rpm, number of segments, and standard deviations) you can also view any dynamic conditions which may be occurring from one revolution to another graphically.



> Step 2 Set gap and acquire

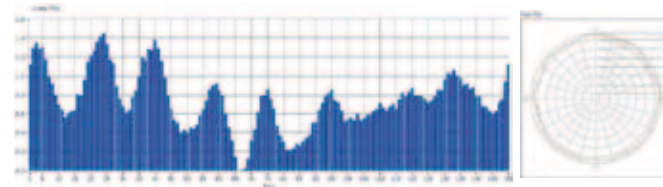
Install the displacement transducer and set the air gap. Adjusting the air gap properly is easily done with the live indications on the Air Gap Meter. Once the air gap is set and the motor is in motion, the acquisition of the data is initiated. Once the data has been collected, it is then automatically processed to extract the critical commutator measurements.



FOCUS

"More about the Automatic Report Generator"

The ComSoft2000™ Software has a built-in report generation software that works in concert with MS Word to generate a report with both linear and radial profile graphs. Simply fill in requested machine information on the info tab and hit "Generate". The software will automatically highlight all relevant information elements and generate a report which can then be printed in pdf format from Word.



SPECIFICATIONS

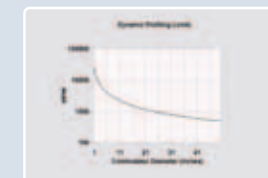
Hardware specifications

- **Measurement Speed:** 1M reading / second, continuous to PC memory
- **Dimensions:** 12" x 9.5" x 1.75" [305mm x 241mm x 45mm]
- **Weight:** 8.8 lbs [4kg]
- **Power Input:** 85-265VAC, 50/60 Hz
- **Power:** 5W
- **Operating Temperature:** +32°F – +158°F [0°C – +70°C]
- **Storage Temperature:** -13°F – +158°F [-25°C – +70°C]
- **Vibration:** MIL Standard 810E, Category 1 & 10
- **PC Interface:** requires USB 2.0



Measurement specifications

- **Linear Measuring Range (F.S.):** 0.020 in [0.5mm]
- **Max Surface Speed:** 2,000 in/sec [50.8m/s]
- **Probe Withstand Voltage:** (not including air gap) 1,000 Volts peak
- **Static Resolution:** 0.06% F.S.
- **Linearity:** +/- 0.25% F.S.
- **Probe Operating Temperature:** -10°F – +250°F [-25°C – +125°C] (Higher Temperature probes available)



Magnetic probe mount



- **Bottom arm length:** 2.2" [5.6 cm]
- **Top arm length:** 2.0" [5.1 cm]

PC requirements

- **Operating System:** Windows XP and 7
- **Processor Speed:** >700MHz
- **RAM:** > 512Mb



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Global expert in materials and solutions for extreme environments as well as in the safety and reliability of electrical equipment, Mersen designs innovative solutions to address its clients' specific

needs to enable them to optimize their manufacturing process in sectors such as energy, transportation, electronics, chemical, pharmaceutical and process industries.

For more information, please visit
www.mersen.com

ComPro2000™ package

ComPro2000™ measurement module, 9.8 ft [3m] probe, magnet-mount probe holder, Windows-based ComPro2000™ software on CD-ROM, 3.2 ft [1m] USB cable

Accessories

Additional probe and cable (one included with each ComPro2000™)
Additional magnetic-mount probe holder
Optional: Multi-probe available

Part No.

ComPro2000™ 1401-00001