

REMO is a multipurpose system for monitoring the operating conditions of devices. REMO makes the user defined measurements and works automatically after initial settings have been made. In case of a malfunctioning device an alarm is sent over TCP/IP -network (also wireless is possible) or as an SMS text message. The measured data can be moved to a monitoring location over the network for further review, and the functioning of the device can be also monitored in real-time. Fault detection, while measuring sound or vibration, is based on neural computation or spectral analysis with alarm levels. Alarm levels can also be set for measurement values such as temperatures, voltages and states.

There are two parts to the REMO-system. A very small measuring unit is placed near the target device. It is contacted by remote monitoring software, that is installed on a regular office computer. Notice the benefit of the system: One remote monitoring software can monitor several measuring devices and similarly one device can be monitored from several locations. This also enables easy scalability by just adding measuring units.

Measured signals:

- Audio
- Image
- Vibration
- Temperature
- Voltage/current
- State-information

Remote Monitoring software user interface:

- Real time monitoring of signals (listening)
- Spectral and time-series views
- Watching video (surveillance)
- Alarm limits for all signals
- Re-teaching of fault detection
- Status of monitored devices in a tree structure

REMO measuring unit features:

- Small size (22 cm x 15 cm x 6 cm)
- Power consumption: 8 W
- Versatile interfaces
- Self diagnostics
- Protective metal casing
- Reliable operation: No moving parts
- Intelligent algorithms (e.g. neural computation)

REMO measuring unit interfaces:

- Analog inputs 4 x 2 channels
- Digital I/O: 3 inputs, 1 output
- 2 x RS-232
- 2 x USB
- Ethernet

