

Monitor plants and processes, visualize and analyze states

# CONDITION MONITORING TOOLKIT

Imagine knowing at an early stage which machine or component in your plant could cause problems in the near future. It is possible, however, many existing plants do not have the technical prerequisites for condition monitoring, even though this can prevent unplanned downtime and unnecessary costs. Until now, the retrofitting of plants has often failed due to the high effort and the associated costs for the permanent monitoring of relevant machine and process parameters.

Here, the CMTK system represents a new and easy-to-implement solution with an excellent cost-benefit ratio. With the flexible CMTK system, you quickly gain deeper insights into the actual condition of your machines and systems and can, therefore, detect deviations and problems at an early stage. In addition, the system is IIoT-capable through standardized interfaces and can be easily adapted to different applications on the software side.

## Features

- Unified retrofit solution for machine and process monitoring
- High flexibility through the connection of up to four arbitrary IO-Link sensors
- Plug-and-play commissioning of the system and visualization of the data
- Output of warning messages when adjustable limit values are exceeded
- IIoT-capable through standardized interfaces such as MQTT
- Software customizable through Docker-technology



Quick Link to CMTK





### CMTK – simple, flexible, effective

The CMTK consists of three components: software, base unit and up to four arbitrary IO-Link sensors.

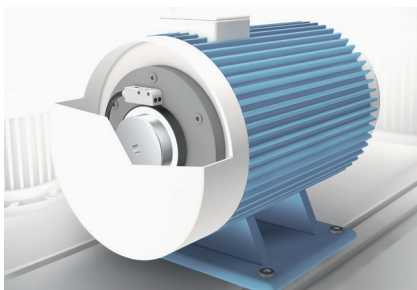
CMTK	BAV002N
Description	Base unit and software

Order sensors, connection and network cables and power supplies individually using this QR code or [link](#).

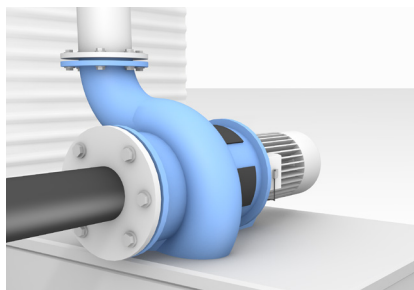
Base unit	<p>The base unit is the central element of the Condition Monitoring Toolkit. It features:</p> <ul style="list-style-type: none"> <li>■ ARM quad core, 2 GB RAM</li> <li>■ 8 GB memory, expandable with SD card</li> <li>■ 4 × M8 IO-Link ports for sensors</li> <li>■ 2 × LAN ports for data transmission</li> <li>■ 24 V power supply connection</li> <li>■ Protection class IP20</li> </ul>
Software	<p>The software integrated on the base unit enables automated visualization and evaluation of the collected data on site. Key features of the software are:</p> <ul style="list-style-type: none"> <li>■ Easy access to the dashboard via the web browser</li> <li>■ Plug-and-play setup through automatic detection of IO-Link sensors as well as simple IO-Link configuration</li> <li>■ Rest API for further configurations</li> <li>■ IIoT-capable through standardized interfaces such as MQTT</li> <li>■ Software customizable through Docker-technology</li> <li>■ Possibility of automated alarming, e.g. via e-mail or directly via the SmartLight</li> <li>■ Languages: English, German, Portuguese, Spanish</li> </ul>
Sensors	<p>The Condition Monitoring Toolkit is compatible with all IO-Link 1.1-capable sensors on the market:</p> <ul style="list-style-type: none"> <li>■ Vibration and temperature sensors for monitoring motors and drives</li> <li>■ Pressure and flow sensors for monitoring pumps and compressors</li> <li>■ Temperature and/or humidity sensors for monitoring control cabinets</li> <li>■ Capacitive sensors or ultrasonic sensors for detecting fill levels</li> </ul>

### Application examples

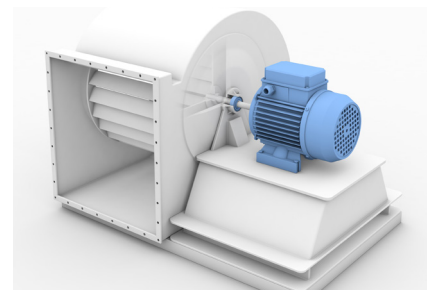
The application possibilities and requirements for condition monitoring of machines are versatile. Take advantage of our experience in the field of sensor technology, industrial networking and IO-Link and contact us.



Motor monitoring



Pump monitoring



Fan monitoring