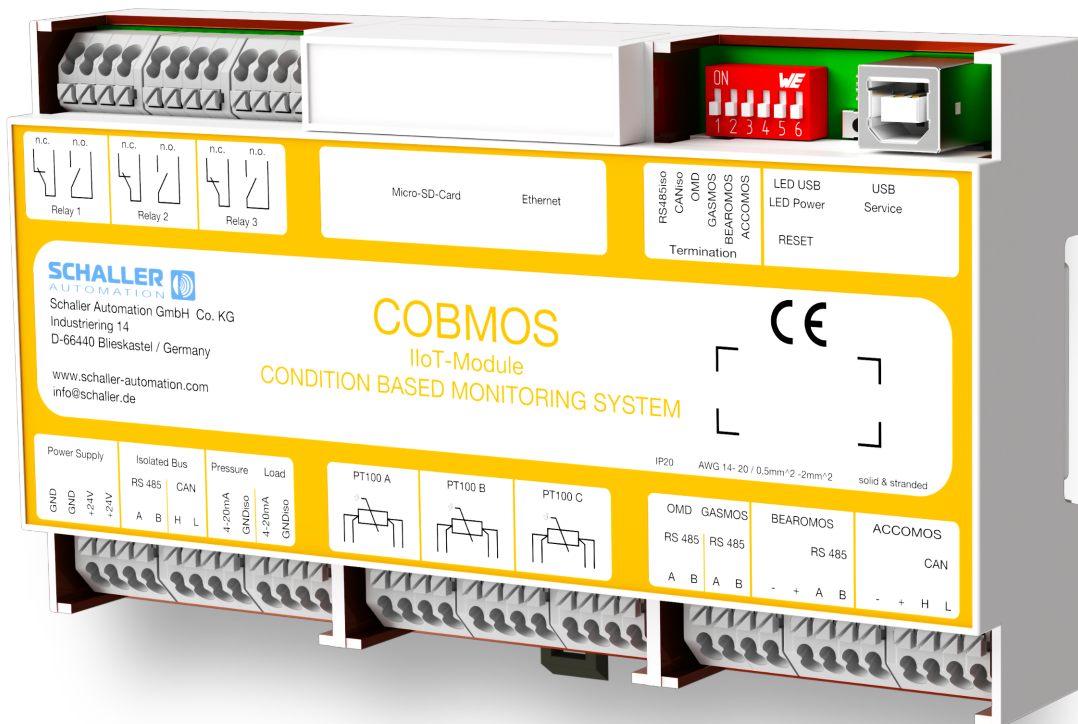


COBMOS® MODULE

CONDITION BASED
MONITORING SYSTEM MODULE



All signals. Clear visibility. Confident decisions.
The interface to your system.

Your Benefits at a Glance

The COBMOS MODULE serves as the central device for all Schaller Automation sensors, combining the functionality of a data logger, visualization platform, intelligent algorithm engine, and cloud application gateway.

With the COBMOS MODULE, you benefit from:

- Data logging for all connected sensors
- Visualization of Schaller Automation sensors via the integrated web server
- A central evaluation platform for BEAROMOS and ACCOMOS using proprietary algorithms
- An IIoT gateway providing seamless connectivity to the COBMOS HUB

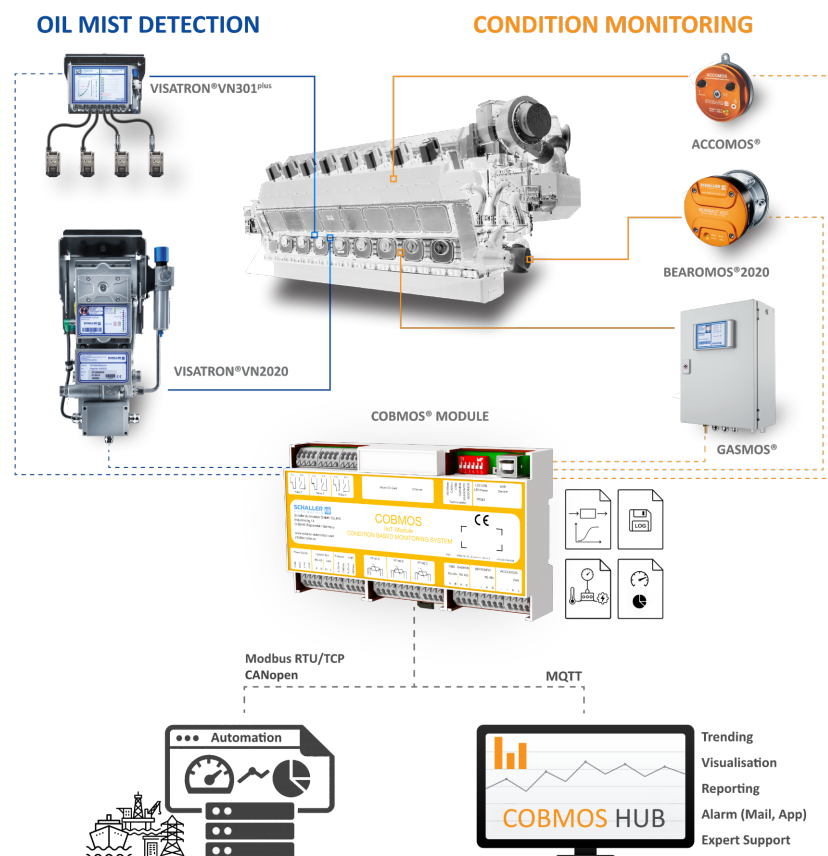
Why the COBMOS MODULE?

Schaller Automation provides robust and reliable systems for oil mist detection and is also a supplier of sensors for condition monitoring of the crankshaft system. With these safety systems and condition-monitoring sensors, customers already benefit from essential technologies that ensure the safety of people and machinery while enabling early detection of potential equipment failures.

As part of the company's COBMOS future strategy, Schaller Automation aims to further advance digitalization in

large engines, building on decades of expertise in crankshaft systems. The goal is to support operators of engines and plants even more effectively in maintenance, service, and safety by enabling decisions and predictions based on intelligent algorithms.

To achieve this, the various Schaller Automation systems installed on the crankshaft are intelligently linked through algorithms. This helps operators interpret sensor results more easily and visualize complex data relationships without requiring deep sensor expertise.



The COBMOS MODULE acts as a powerful Industrial Internet of Things (IIoT) device and data logger for the wide range of sensor solutions offered by Schaller Automation. It serves as the standard platform for evaluating data from ACCOMOS and BEAROMOS. In addition, the COBMOS MODULE consolidates data from ACCOMOS, BEAROMOS, GASMOS, and the oil mist detector devices (VN2020, VN301plus, VN87plus, VN93), intelligently linking them together. This enables clear and meaningful visualization of data and, through the COBMOS HUB, the display of time-based developments in informative trend graphs. With its integrated and easy-to-use update functionality, Schaller Automation provides users with continuous improvements and ongoing advancements in algorithm development.

Features of the COBMOS MODULE

The COBMOS MODULE offers the following functionality:

- Data logger
- Standard evaluation platform for BEAROMOS and ACCOMOS
- Connectivity to all sensors from Schaller Automation
- Intelligent linking of measurement data from all connected sensors using powerful algorithms
- Visualization of current sensor values via the integrated web server, even without an internet connection
- Interfaces for plant automation: CANopen, Modbus RTU, and Modbus TCP
- MQTT functionality for providing measurement data to the COBMOS HUB

Who is the COBMOS MODULE designed for?

The COBMOS MODULE is suitable for all manufacturers and operators of large engines who want to benefit from the central integration of Schaller Automation's sensor technologies.

For operators who face challenges integrating additional sensors into their existing plant automation systems, the

COBMOS MODULE provides essential functions such as data logging and sensor visualization via the integrated web server, completely independent of the automation environment.

With an active internet connection, operators can additionally make use of the COBMOS HUB, enabling extended visualization, trend analysis, and centralized data evaluation.

Installation and Retrofit

The COBMOS MODULE is installed on a DIN rail inside an electrical cabinet and connected to the sensors via cable. When integrated into an existing network (LAN), the integrated web server can be accessed.

If an internet connection is available, the COBMOS HUB can additionally be used for extended functionality. A standalone housing is available as an accessory.



COBMOS MODULE – Integrated Web Server

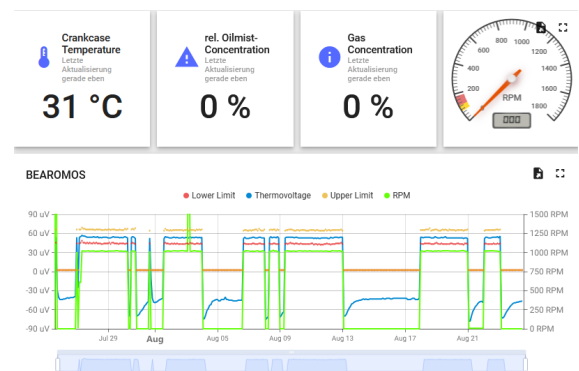
On the dashboard of the integrated web server of the COBMOS MODULE, the most important current measurement values from the connected Schaller Automation sensors are displayed. In addition, the user receives information about the current operating status of each individual sensor



Dashboard COBMOS Webserver

COBMOS HUB

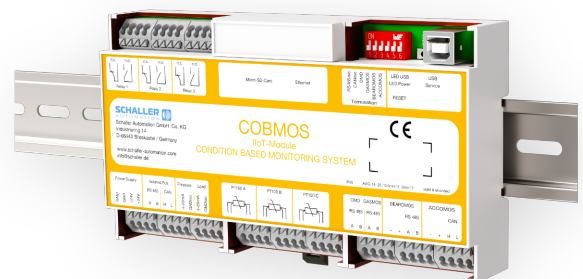
With the COBMOS HUB, the measurement data recorded by the COBMOS MODULE can be visualized. Users can create their own dashboards, enabling personalized views tailored to their specific needs.



Example image COBMOS HUB (example only)

Engine-Specific Adaptation

The COBMOS MODULE is delivered with a predefined standard parameter set for its algorithms. This parameter set can be adjusted for different sensors to tailor warnings, for example, to the specific characteristics of individual engines. When improvements to the algorithms become available, they can be applied through a simple update process.



Installation example of the COBMOS MODULE

Technical Data

Mechanical Data	
Dimensions (L x B x H)	160 mm x 90 mm x 33 mm
Weight	ca. 210 g
Connection	DIN rail (TH35)
Interfaces	Spring clam terminals AWG 14-20 / 0,5 mm ² - 2 mm ²
Electrical Data	
Power Supply	9...32 V DC
Rated Voltage	24 V DC
Current Consumption	max. 1,85 A
Realis Outputs	max. 60V DC / 45 V AC, 60 W, 45 VA, 1A
Interfaces & Communication	
External Communication, digital	Ethernet (ModbusTCP, MQTT) RS485 (galvanic isolated, Modbus RTU) CAN (galvanic isolated, CANopen) USB1.1 - parametrization and log-access
Interfaces for Schaller Sensors, digital	OMD (VN2020 / VN301plus / VN87+ / VN93) GASMOS BEAROMOS ACCOMOS
Inputs, analog	3x temperature sensor (PT100 / 4-wire) 4-20 mA load sensor 4-20 mA pressure sensor
Environmental Conditions	
Operating Temperature	0...55 °C
Storage Temperature	-20...55 °C
Maximum Vibration for the Device in Compliance with Approvals	5...13,2 Hz 1,6 mm Peak 13,2...100 Hz 7 m/s ² Peak
Relative Humidity	0...95 % rF
Protection Class	IP 20



Safety for you and your engine: Worldwide!

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