Condition-based oil change: Sensor system for oil quality monitoring

- ☑ Sensor for online monitoring of the oil condition (oil chemistry)
- ☑ Inline sensor, based on a multichannel infrared measuring cell
- ☑ Adjustable limits, according to the oil parameters
- ☑ Robust design for mounting on machines and facilities
- ☑ Digital signals and Ethernet interface for direct connection to control systems
- ☑ Comfortable configuration and diagnosis via graphical user interface



Technical data

General

| Power supply Housing | 1836 V DC max current consumption 320 mA @18 V stainless steel |
|-----------------------|--|
| Operating conditions | Stanness steel |
| Operating temperature | 0°C+70°C |

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|----------------------------|-------------------------------|
| Maximum operating pressure | 10 bars (optionally: 30 bars) |
| Storage temperature | -40°C+85°C |
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Digital I/O ports

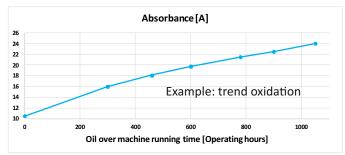
| Digital inputs | 1x digital in 1836V (10mA max) |
|-----------------|--------------------------------|
| Digital outputs | 4x digital out 1836V (5mA max) |

Ethernet port

10/100 Mbit/s Ethernet with a standard RJ-45 LAN 10/100 Base-T connector

Communication via manufacturer-independent bus protocol Modbus TCP

Evaluation via PC software



Technical modifications reserved

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Measuring principle

The measuring system, which can be integrated directly into the CHP, consists of a multi-channel IR measuring cell with corresponding electronics and peripherals. Here, the oil chemistry is measured and processed on individual spectral bands, based on the IR absorption.

Depending on the sensor configuration*, various chemical changes can be measured via the infrared absorption.

* Sensor configuration: When changing to another type of oil, it must be checked if the current sensor configuration can be used.

Measurable values

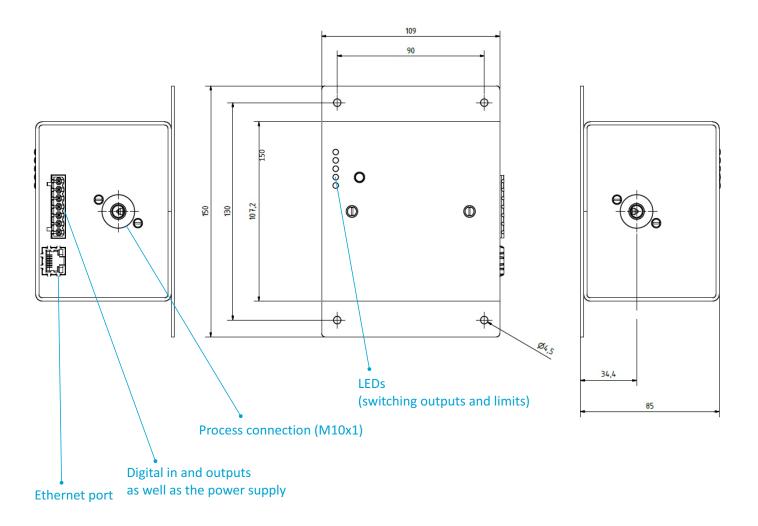
Depending on the detector configuration, up to 6 parameters can be measured at the same time:

- Oxidation
- Nitration
- Sulfation
- Water content
- Soot content
- Additive content (phenols)
- Ethylene glycol
- TAN, TBN





Dimensions and connectors



Information about availability and placing an order

This sensor is currently still in the trial phase.

For questions about this product, please use the given contact options.

