DATASHEET

Residual oil meter oilguard III

Measuring system for high-precision measurement of the vaporous residual oil content in compressed air, nitrogen and gases

Residual oil measurement of the vaporous oil content from 0.001...5 mg/m³, 3...9 bar. High-precision PID sensor, innovative "Forced Pressure Variation" measuring method, with integrated display, with 4...20 mA analog output and digital Modbus RTU interface, incl. calibration certificate.

"Forced Pressure Variation" for long-term stable measurement results - auto-calibration

Using the innovative "Forced Pressure Variation" measuring method, the oilguard III generates internal reference gas in different mass concentrations. This proprietary process can be used to compensate for ageing or contamination-related components in the measurement signal, in particular long-term drift. No wearing parts such as activated carbon filters are required for the generation of zero air. The result is a low-maintenance and long-term stable measurement.

Service-friendly, no downtime

The sensor unit can be replaced by the customer on site. This eliminates the need to return the entire device for recalibration.

Process reliability

All functions / components are monitored internally. A complete function test report can be printed out using the service software.

On-site calibration

Calibration can be carried out in the field using test gas cylinders. The service software can be used to generate a verification report (as-found data) and a calibration report (as-left data). (As-left data) can be created.

Ideal for mobile measurement

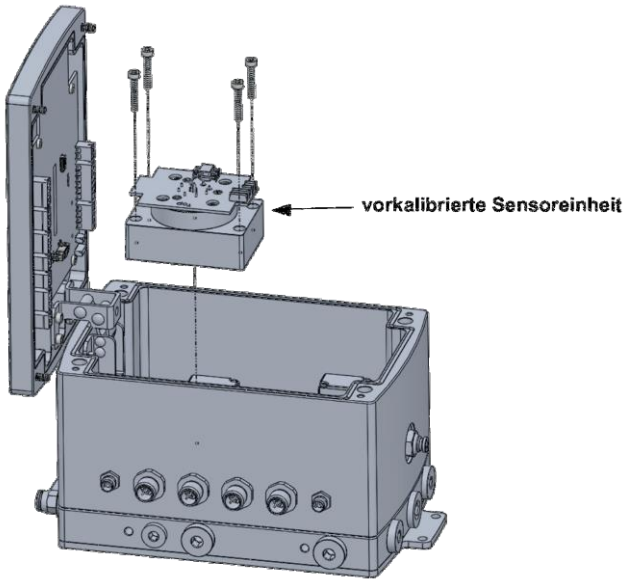
Compact measuring device, easy sampling and quickly ready for measurement.

Simple installation

Air inlet / air outlet - sampling via PTFE hose or stainless steel line. Digital and analog interfaces as standard. Connection via M12 plug.

Easy to service - no downtime

Loosen four screws - replace the sensor unit. A full function test is carried out at the touch of a button. This means that the measurement can be continued almost without interruption.



Measuring system for high-precision measurement of the vaporous residual oil content in compressed air, nitrogen and gases

Technical data:

calibrated measuring range:	0,001...5 mg/m³ (higher measuring ranges on request)
Detection limit (residual oil):	0,001 mg/m³
Pressure range:	3 ... 9 bar, optional pressure reducer can be connected upstream for up to 300 bar
Measuring medium:	Compressed air, nitrogen (free from aggressive, corrosive, caustic, toxic, flammable and oxidizing components)
Measured variable:	Residual oil content in mg oil/standard m³ based on 1.0 bar (abs), +20°C, 0% rel. humidity, in accordance with ISO 8573-1
Measured values:	mg/standard ³, pressure and temperature compensated Residual oil vapor content
Detectable substances:	Hydrocarbons, functional hydrocarbons, aromatics
Ambient temperature:	+ 20°C...+45°C, rel. humidity <= 75%without condensation
Compressed air temperature:	+ 20°C...+50°C
Sample gas humidity:	<= 40% rel. humidity, pressure dew point max. +10°C, non-condensable humidity
Sample gas flow rate:	approx. 0.5 standard liters/minute, based on 1.0 bar (abs.) and +20°C, in expanded state
Range of application:	After activated carbon filter, after activated carbon adsorber, after oil-free compressor, in each case with upstream filtration and drying

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Technical data:

Mechanical connection:	G 1/4“ female thread to ISO 228-1
Operating hours counter:	integrated
Dimensions:	130 x 200 x 120 mm (h x w x d)
Weight:	approx. 7 kg
Outputs (analog):	4…20 mA (galvanically isolated)
Outputs (digital):	RS 485 interface (Modbus RTU)
Outputs (optional):	2x 4…20 mA analog output (galvanically isolated) 2x alarm output for external alarm column, alarm values freely adjustable
Power supply:	100…240V AC / 1 Ph / PE / 50…60 Hz / +- 10% (power supply unit included)

Additional information on the Oilguard 3 Portable (OG3PT)

The OG3PT has the same precise measurement technology as the stationary model and measures the vaporous residual oil content in a range from 0.001 to 5 mg/m³ at 3 to 9 bar operating pressure. Both versions use a high-precision PID sensor and the innovative “Forced Pressure Variation” measuring method, which ensures long-term stable, low-maintenance results.

In contrast to the stationary version, however, the mobile version is housed in a robust hard case and specially designed for flexible field use. It has an integrated display, a 4...20 mA analog output and a digital Modbus RTU interface and is supplied with a 5 m ODU/ODU connection cable and calibration certificate - ideal for temporary measurements and on-site service work.