WIO CHECK E

Electronic Water-in-Oil Test

Routine monitoring of the water concentration in oil is an essential part of any oil condition monitoring program. Water as a contaminant causes degradation of lube and hydraulic oil quality, thereby harmfully affecting the components of the engine system due to corrosion problems, and can even result in machinery failures when water is found in excessive amounts. It is crucial to conduct regular on-site testing and trend analysis to promptly detect any cases of water-in-oil contamination in order to take appropriate corrective and preventive measures.
The portable digital test device TWIN CHECK 4.0 is designed for easy, quick and accurate measurement of two critical oil parameters: the water content in oil and base number (BN). Upon the customer's request the TWIN CHECK 4.0 is configured and available as the **WIO CHECK E** option to exclusively determine the **water-in-oil concentration**.

Test Kit „WIO CHECK E" incl. Reagents and Accessories for Regular Measurements of the Water-in-Oil Content

Features:

- Measuring range: 0 – 1.0 vol. % H_2O
- Measuring time: depends on the measured value (min. 2 - max. 20 min.)
- Accuracy: +/- 3 %

Benefits:

- Applicable for all mineral oil-based fluids
- Improved design with easy-to-follow navigation menu for high accuracy measurements
- Digital read-out of test results
- Internal memory chip with average data storage of *2.5* years
- USB to serial cable connectivity for data transfer and trend analysis
- 6 modes for up to 6 various oil grades of different engines
- Maintenance and repair on board is possible

The test device TWIN CHECK 4.0 in its **WIO CHECK E** version is offered in new modular design with several upgraded configurations in accordance with Industry 4.0 concept: flexible replacement of constituent parts, user-friendly navigation menu, optimized measurement process, precise determination of measuring time in accordance with the measured value and automatic cut-off of measurement. Large memory capacity for data storage and USB to serial connection (terminal program) enables conducting trend analysis and direct on-site evaluation of test results.

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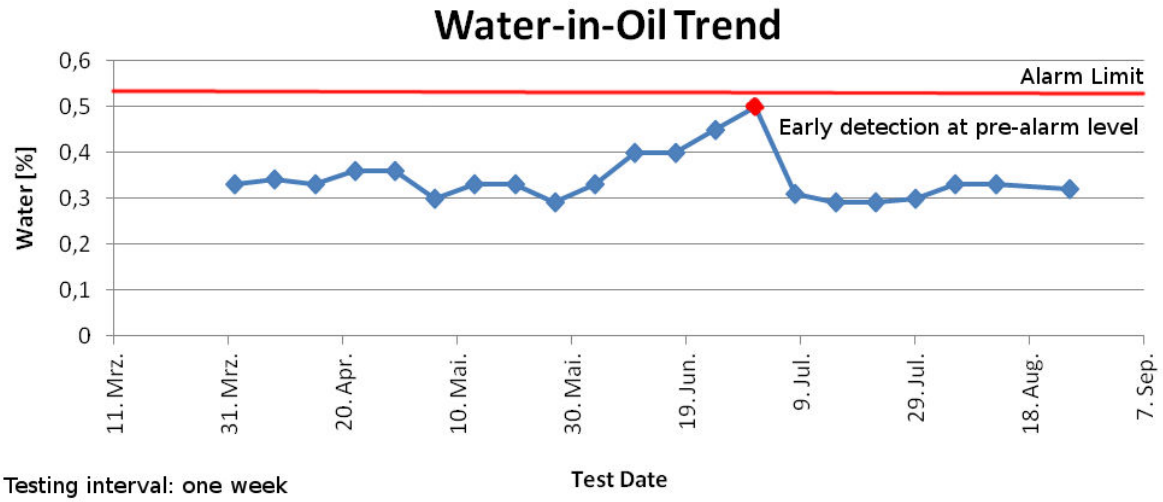
The essential distinctive feature of the TWIN CHECK 4.0 (and its **WIO CHECK E** version) is the possibility to replace every single constituent part (no matter plugged or screwed) in case of malfunction or damage occurred.

Test Device „TWIN CHECK 4.0“ in its „WIO CHECK E“ Version for Regular Measurements of the Water-in-Oil Content

The interchangeable parts of the test device include: a display in conjunction with a mainboard, a cable connection between the mainboard and the pressure cells, a pressure transmitter (pressure sensor), 9V block battery, a cable connection to the battery, USB cable and a reaction vessel. After a short on-site technical diagnosis and determination of malfunction cause (employing, for example, the MT TEST KIT VERIFYER for detection of pressure related problems), the required component can be ordered and independently replaced.

The two chambers of the reaction vessel of the **WIO CHECK E** get filled with the oil sample and the reagent. After closing the device, the integrated pressure sensor adopts the external (ambient) pressure as a measurement line with a zero-referenced value. Once the procedure is completed, by shaking the test device every two minutes for 15 seconds the measuring process takes place. The pressure build-up is directly proportional to the water present in the oil under examination. As soon as the pressure is no more increasing (i.e., the water parameter is constant), the test device automatically stops measuring and displays the end-result. Therefore, the amount of time required for testing varies in accordance with the measured water-in-oil value. So, for instance if no water in oil is detected within the first two minutes of the measuring process, the test result will be automatically shown on the electronic display of the test device.



Testing interval: one week

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