

Digital Precision Oil Tester – DPOT™

Water in Oil Analyzer for Oils, Fuels and Solvents

The new DPOT™ from GESERCO is the most advanced and innovative water in oil analyzer to be developed by the Number 1 Expert in rapid condition monitoring of oils in service.

DPOT™ is based on the "Aquatest" water in oil analysis method which is standardized by ISO⁽¹⁾, AFNOR⁽²⁾ and GFC⁽³⁾ and which was continuously refined by GESERCO over the past 40 years.

DPOT™ from GESERCO offers a variety of technical breakthroughs for water in oil analysis:

- It can be used for any type of **oils**, **lubricating oils** and **fuel oils** (mineral, synthetic or bio-generated), solvents, alcohols, aromatic liquids, greases...
- The water in oil analysis result is **not sensitive to the additives** which can be present in the oils, even when the proportion is massive
- The digital analysis result is delivered in water volume or water mass within **90 seconds**⁽⁴⁾
- It offers 8 measuring ranges from **0 – 2000 ppm H₂O** to **0 – 15 % H₂O**
- It offers a very high measurement sensitivity down to **1 ppm H₂O**
- It works with very small test samples down to **0.5 cc**
- It does **not require any hazardous chemicals** for transportation, nor flammable, nor corrosive, nor CMR
- Its memory can store up to **500 test results**, each being individually stamped and labeled
- Its **USB port** allows for downloading test results to the IT system and for upgrading the embedded firmware to the latest available version



DPOT™ is a very small (A4 footprint) and rugged instrument. It is extremely simple and quick to use, even when in the hands of an operator with **no specific chemistry expertise**. The multi lingual user interface gives step by step operating instructions, and the numerous embedded functions make it very easy to use.

(1) ISO 9114 :1997 standard

(2) NF T60-640 standard, June 2018

(3) GFC TR-40-A-14 method, December 2014

(4) Typical analysis time in Predictive Measuring Mode

Metrological Specifications

Measuring Ranges		Sensitivity	Accuracy ⁽¹⁾	Sample volume
0 – 2 000 ppm H ₂ O	0 – 0.2 %H ₂ O	< 1 ppm H ₂ O	± 6 ppm H ₂ O	30 cc
0 – 3 000 ppm H ₂ O	0 – 0.3 %H ₂ O	< 1 ppm H ₂ O	± 9 ppm H ₂ O	20 cc
0 – 7 000 ppm H ₂ O	0 – 0.7 %H ₂ O	< 1 ppm H ₂ O	± 20 ppm H ₂ O	10 cc
0 – 15 000 ppm H ₂ O	0 – 1.5 %H ₂ O	< 1 ppm H ₂ O	± 42 ppm H ₂ O	5 cc
0 – 25 000 ppm H ₂ O	0 – 2.5 %H ₂ O	< 1 ppm H ₂ O	± 70 ppm H ₂ O	3 cc
0 – 37 000 ppm H ₂ O	0 – 3.7 %H ₂ O	1 ppm H ₂ O	± 0.01 %H ₂ O	2 cc
0 – 75 000 ppm H ₂ O	0 – 7.5 %H ₂ O	2 ppm H ₂ O	± 0.02 %H ₂ O	1 cc
0 – 150 000 ppm H ₂ O	0 – 15 %H ₂ O	4 ppm H ₂ O	± 0.04 %H ₂ O	0.5 cc

- Resolution: 5 resolution levels from 1 ppm H₂O to 1 %H₂O
- Engineering units: %H₂O volume, %H₂O mass, ppmH₂O volume, ppmH₂O mass
- Test principle: Aquatest
- Test reagents: Reagent WT or Reagent WT/NH⁽²⁾, solvent WT2⁽²⁾.
- 2 measuring modes: (1) Direct mode for high accuracy test results
(2) Predictive mode for fastest test results
- Time to test result: Down to 90 seconds in predictive mode
- 4 end of test modes: (1) automatic end of test detection with user defined criterion
(2) standardized test duration (15 minutes)
(3) user defined test duration (up to 3 hours)
(4) on operator command

User Interface and Features

- Large capacitive high resolution color touch screen
- User interface in French and English
- Step by step user instructions for test preparation and execution
- Built-in magnetic stirrer
- Automatic correction of solvent blank
- 12 test patterns (1 factory pattern and 11 user programmable patterns)
- Time/date stamping and user defined identification label for each test
- Graphics display of test evolution (curve)
- Memory for 500 test results
- USB interface to download test results to a computer and upgrade embedded firmware
- "Diagnostic" mode for leak detection and/or calibration of the sensor

Other Specifications

- Dimensions: 18 x 16 x 20 cm
 - Weight: 5.2 kg
 - Power supply: 100 – 240 Vac
50/60 Hz
- (1) ~0.3% FS typical ; 0.5% FS maximum (includes zero drift, FS drift, linearity, hysteresis and reproducibility)
- (2) Reagent WT/NH and reagent WT2 are not hazardous for transportation, nor flammable, nor corrosive, nor CMR.

Product Code

DPOT™ water in oil analyzer:	WT9026
<u>Includes:</u> 1 DPOT™ water in oil analyzer, 1 power supply unit, 2 magnetic bars, 1 measuring block, 2 reaction flasks, 1 tweezers, 1 stylus, 1 tube of silicon and water free grease, 1 user manual	
Non hazardous reagents pack:	PP9109
Traditional reagents pack:	PP9110

Feel free to contact GESERCO for details

Since 1973 GESERCO designs and manufactures a fully comprehensive range of rapid lubricant, fuels and solvent condition monitoring kits.

Available worldwide, the Geserco products are applicable to the condition monitoring of mineral, synthetic and bio lubricants, whether they be motor oils, hydraulic oils or machining fluids.