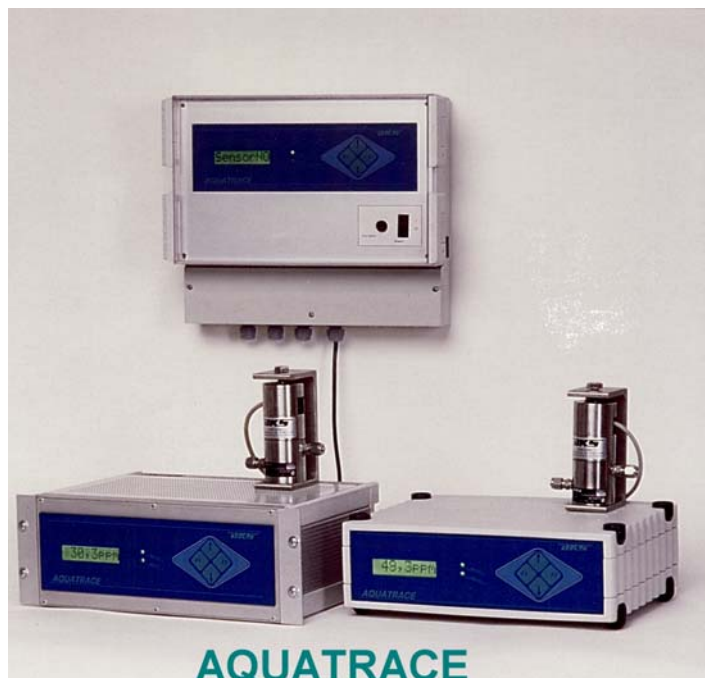


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Using this newly developed unit the classical method of analyzing traces of moisture in gaseous media attains a new quality standard.

The measuring principle is based on the known absorption of H₂O on a P₂O₅ layer and the subsequent electrolytical decomposition of the water.

Electrolysis takes place at a double-wound noble metal electrode which is fixed on a glass body.

According to Coulomb's law the current flowing at a given voltage is within a wide range of concentration proportional to the quantity of the decomposed water. The maintenance of a constant flow rate of the gas to be measured results in the dynamical balance at the active electrode and allows measurements to be made in the range 0.1....2000 Vppm H₂O with high sensitivity and very good repeatability.

The measurement can be made in all gaseous media which do not react to phosphoric acid or which polymerize. These are practically all gases which do not react alkaline including the lower hydrocarbons.

The noble metal sensor has a practically **unlimited life**, together with the measuring cell body of stainless steel or glass it is the heart of the analyzing unit. It can be regenerated by the user with effortless ease. Recalibration is not necessary.

New in this measuring unit is the **automatic calibration, the identification of the sensor and an integrated sensor check** which allows deposits or impurities on the sensor to be rapidly detected.

Optionally, this **sensor check** can be automated so that the units are self-monitoring and conform to the NAMUR conditions in an optimum way.

Compared to systems used hitherto this greatly increases the reliability of the measurements while maintenance costs are reduced.

The electronics is in 12-bit technology and allows the display of the measured value with a resolution of 0.1 Vppm over the entire range. The clearly visible display can be operated via a specially protected multifunctional foil keyboard allows a particularly efficient use in the laboratory and in production.

The unit allows the simultaneous measuring with up to 3 measuring cells.

An extensive operator's menu allows

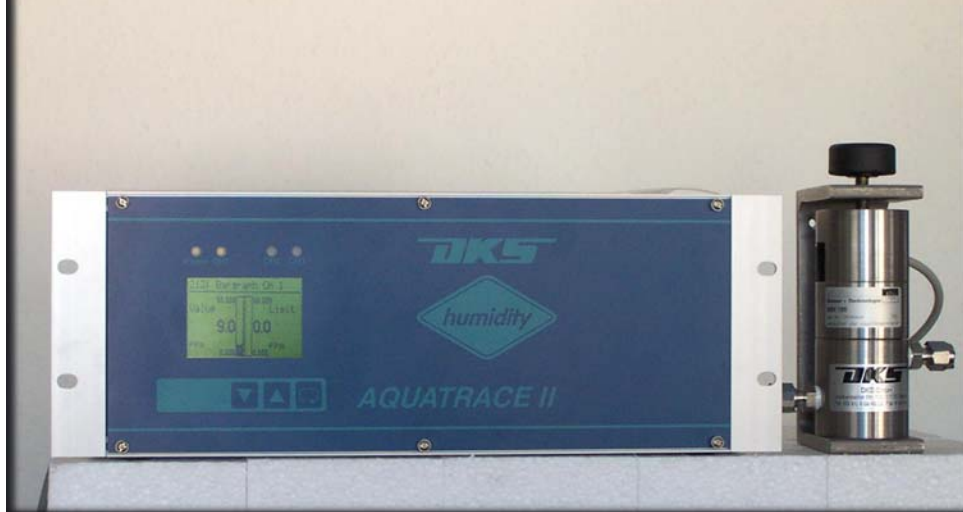
- I. 3 different display modes for the measured values (digital or bar chart for measured value and limit value resp. trend graph of measured values)
- II. Scaling of analog output for each display
- III. In the password protected engineering mode (option), the adjustment of the characteristic and the programming of an automated sensor check.
- IV. A user-specific configuration of the display.

The limit switches are adjustable as floating contacts. An RS 232 interface is standard. All current industrial BUS systems can be used.

The unit is available in 3 versions:

- V. Laboratory unit in combination with a portable analysis unit
- VI. Wall-mounted cabinet with IP65
- VII. 19" rack plug-in unit IP54

The units can thus be adapted to any application.



Applications:

- Producers and users of technical gases
- Microelectronics
- Chemical industry
- Monitoring and checking of compressed air plants
- Mechanical and apparatus engineering
- Heat treatment / hardening shops
- Research and laboratories

The analysis units are used to check the purity and to monitor the production (e.g. air, N₂, H₂, Ar or other rare gases, CO₂, Cl₂, SO₂, acetylene, hydrocarbons etc.)

Technical data of measuring unit:

Measuring ranges: 0...2000 Vppm
 Display: 6-digit LCD with back lighting
 multifunktional
 Resolution: 0.1 Vppm
 Check functions: Sensor dedektion
 Auto control
**Sensor check
 automatedly (option)**
 Analog output: 4-20 mA (scalable)
 Alarm output: potential less NO/NC
 Operating voltage: 220 V, 50 Hz ; 24 VUC
 or accumulator with charger for portable unit
 (option)
 Dimensions:
 - Lab unit/Portable (LxWxH) 324 x135 x 280 mm
 - Industrial unit - Wall-mounted cabinet with separate
 PG cable leads IP 65
 (LxWxH) 323 x 237 x 173 mm
 19" rack; 3 HE W 240
 3 Chanel unit 84 TE – L = 426 mm
 1 Chanel unit 64 TE – L = 326 mm

Technical data of measuring cell:

Material: PVDF , Stainless steel or glass
 Sensor: Noble metal
 Measuring gas flow: 100 NI/h or 20 NI/h
 Measuring gas temperature: +5...65 °C
 Measuring gas pressure at sensor: max. 200 mbar
 Compressive strength of
 stainless steel measuring cell: 10 bar
 Response time: <1 sec
 Reaction time T₅₀: <8 sec
 Gas connection: 6 mm dia. locking ring
 Connection of measuring cell: 5-pole Binder
 plug
 Measuring cable: 1,4 m
 Max. cable length: 150 m
 Explosion protection: for 20 NI/h
 Use in zone 1 possible
 Option:
 Mounting in portable box with flowmeter and
 Gas-quick-coupling; additional gaspump possible
 4-way - purging valve