Portable PID (PPID3)

The Portable PID (PPID3) is a new generation of portable Photoionization Detectors to detect volatile organic compounds (VOCs) with an ionisation potential < 10.6 eV. (alternative with 11,8eV lamp). It presents the known measuring properties from the PPM in an entirely revised, modern concept. The state-of-the-art PID technology in combination with the experience of more than 25 years of PID instruments provides the professional user with an instrument for highest sensitivity and robustness. Designed for field use, the PPID3 can be used for person related as well as stationary measuring tasks in which hazardous substance concentrations (gases, vapours) in air (working environment, inner rooms, soil air, and environment) must be monitored.

Extended measuring range

A new sensor unit allows an extended measuring range of up to 2 000 ppm (isobutene) with high resolution even at low concentrations.

Easy user interface

The high-contrast, graphic 2.4-inch OLED display with intuitive user guidance, clear text instructions and step-by-step configuration supports simple operation even in poor lighting conditions thanks to illuminated buttons.

High performance PID lamp

The ionization source is a high stable hollow cathode lamp with an energy of 10.6 eV. With its ceramic discharge channel, the stability is improved and a longer service life of up to 15 000 hours and more will achieve.

Temperature / humidity compensation

The integrated humidity / temperature sensor measures in addition to the sensor signal the physical environment data and compensates their influence on the measuring result.

Response factors

Response factors for up to 100 gases can be stored in the device.

Easy calibration

The Portable PID is calibrated with 100 ppm Isobuten at delivery. Calibration can be adjusted or repeated when required. A user-defined two-point calibration with a chosen measuring substance is possible as well.

Acoustic and visual warning functions

The Portable PID has an acoustic alarm and two ultra-bright LEDs that warn when adjustable concentration values are exceeded.

Large data memory

The data memory permits storage of more than 20 000 data records. Additionally, a separate storage is available for manually saved measuring data. A free PC software enables evaluation and logging of the saved data.

Diverse charging options

The Portable PID is equipped with a standard USB-C connection and can be charged with any common USB wall adapter or car charger. Wireless charging also is possible.

Technical Data

Detector principle	VUV-Photoionization with 10.6 eV hollow cathode lamp with Ceramic Discharge Channel technology (alternative with 11,8eV lamp)
Detection ranges	0 … 2 000 ppm Isobutene *
Display range	0 … 20 000 ppm, depending on response factor of detected substance
Lower detection limit	Typical 0,05 ppm Isobutene (2000 ppm Range) *
Display resolution	Dynamic
Response time	T90 < 10 s *
Signal integrity	Up to 100 ppm typical > 98 % * Up to 2 000 ppm typical > 95 % *
Influence of humidity	Humidity and temperature compensation at 0 ... 50 °C and 0 … 90 % rH residual effect less than < 10 % FS
Operating conditions	-10 … 50 °C 0 … 95 % rH, non-condensing
Storage conditions	-20 … 60 °C 0 … 95 % rH, non-condensing (45°C for 3 month limited by battery)
Gas sampling	Integrated diaphragm pump (about 200-300 ml/min), with function monitor Sample inlet with dust and water protection filter
PID lamp lifetime	10,6eV: Min. 8 000 hours, typical more than 15 000 h 11,8eV: 4 months from date of delivery
Signalisation	Visual: Ultra-bright LEDs, Acoustic: Alarm, at least 90 dB (A) in 30 cm
Alarm	Locked alarm, Self-triggering alarm, 2 adjustable alarm levels
Power supply	Integrated lithium-ion battery 3,6 V/24 Wh
Runtime / Charging time	Runtime >15 hours / Charge approx. 6 hours with USB charger (5V / 2A), approx. 10 hours with Wireless-Charger
Display	Full graphic monochrome OLED-display
Digital interfaces	USB-C
Program functions	Continuous measurement with automatic and manual data storage, threshold monitoring, two-point calibration, self-test, fresh air compensation,
Calibration	Two-point calibration Zero gas and span gas via sample inlet
Memory	For 8 hours one measurement data per second with time, temperature, and humidity
Response factors	**Up to 100 selectable response** factors can be set for 10,6eV lamp Input of user-specific response factors possible for 10,6eV and 11,8eV lamp
Dimension, weight	220 mm x 75 mm x 48 mm (L x W x H), less 450 g
Ingress Protection	IP54
Warranty	2 years, except for components in gas path and wearing parts
Approvals	EMC directive 2014/30/EU

* The indicated values were obtained under standardized conditions with 10,6eV lamp.
Test gas was isobutene in synthetic air.

Contact

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