Why choose NEO?

The NEO is one of the most advanced handheld VOC (Volatile Organic Compound) monitors available for ppb (parts per billion) detection. VOCs include a variety of chemicals such as benzene, alcohols, fuels, paint thinners, industrial solvents and many others, which can have short and long-term adverse health effects. Measuring these compounds is essential for worker protection in industries like oil & gas, fire & hazmat, pharmaceuticals, paints & adhesives, and many others. In addition, VOC monitoring is useful chemical process control, detecting leaks and other releases to the environment, and in measuring indoor air quality. The NEO offers several models from the most sensitive 1 ppb to a high range up to 15,000 ppm for different applications, and a benzene-specific version (NEO BENZ). Novel designs of the Photo-ionization Detector (PID) and Ultraviolet (UV) lamp provide outstanding sensitivity, stability and reproducibility. Includes real-time data monitoring using mPower Suite software via cable to a PC or via Bluetooth to an Android phone or tablet.

Photo - ionisation detectors

Detectably better VOC detection

Feature, functions and benefits

- Smaller and lighter weight than comparable PIDs
- Most stable ppb-level PID on the market
- Outstanding linearity over full measurement range
- Easy charging on laptop or other USB port
- USB Micro Charger; combination USB-m charging and communications cable
- Powerful battery (run time 24 hours)
- Bluetooth
- Low Energy (BLE) connectivity standard
- Large backlight graphic display
- Lamp glow indicator
- Rugged, stainless-steel housing with rubber outer boot
- Built in VOC gas table inc. 700 VOCs

Detector Specifications

Size	9.1 x 2.9 x 2.2in (230 x 74 x 55mm) (with boot)
Weight	24.9oz (708g) (w/boot)
Sensor	Photo-ionization sensor with standard 10.6 eV lamp (9.8 eV lamp in MP186)*
Response Time	3 sec (t90) VOC Mode 45 sec @ 68°F (20°C) Benzene Tube Mode (MP186)
Accuracy	±3% (at calibration point)
Battery / Run Time	Rechargeable Lithium-Ion battery with 24 hours typical operation
Keypad	4 Operation keys
Sampling Pump	Built-in pump with 3 settings from 300 to 430 cc/min Sample from up to 100 ft (30 m)
Display	128 x 128 graphical LCD, 1.77 x 1.73 in (45 x 44 mm), with LED backlight for enhanced display readability
Direct Readout	Real-time reading of gas concentration (ppb, ppm, mg/m 3, µg/m3), PID measurement gas and correction factor, lamp on/off, Man-Down alarm on/off, battery status, pump status, datalogging on/off, wireless on/off, temperature and time
Alarms	Audible (95dB @ 30 cm), visual (flashing bright red LEDs), and on-screen indication of alarm conditions plus wireless remote alarm notification High, low, TWA and STEL alarms over range alarm, battery low alarm, man-down alarm with pre-alarm and real-time remote wireless notification
Datalogging Capacity	Standard 12 months at one-minute intervals Storage interval adjustable from 1 to 3,600 seconds
Calibration	Two/three-point calibration
Low Flow Alarm	Auto pump shutoff at low-flow condition
Charging and Communication	Charging, data download, instrument configuration and firmware upgrades on PC or laptop via Micro USB. Configuration also via BLE using mobile App on Android phone or tablet
BLE Range	10m (33ft) line of sight
Correction Factors	Integrated Correction Factor list of more than 700 compounds

IR Rating	IP-66/67
EMI/RFI	Highly resistant to EMI/RFI Compliant with EMC Directive 2014/30/EU
Safety Certifications	Class I, Div 1, Group ABCD T4, -20°C ≤ Tamb ≤ +50°C Ex ia IIC T4 Ga II 1G Ex ia IIC T4 Ga European Conformity
Temperature	-4° to 122°F (-20° to 50°C)
Humidity	0% to 95% Relative humidity (non-condensing)
Attachments	Durable rubber boot, color coded for different models; Tube holder for MP186
Warranty	2 Years including lamp and sensor

Due to ongoing reasearch and product improvement, specifications are subect to change without notice.

Model Options

Model Number	VOC Range PPM	Part No.
MP181 (NEO PPM)	0.01-5,000	POR-NEO-181
MP182 (NEO EXT)	0.01-15,000	POR-NEO-182EX
MP184 (NEO PPB)	0.001-15,000	POR-NEO-168PPB
MP185 (NEO SEMI) (w/o MicroUSB)	0.001-15,000	Special Order
MP186 (NEO BENZ)* (w/9.8 eV Lamp & Tube Holder)	0.05-200 Benzene 0.005-10,000 VOC	POR-NEO-186B

* 9.8 eV lamp detects fewer VOCs than the 10.6 eV lamp

NEO PID Benzene Specific

The PID NEO is able to detect down to parts per billion levels (ppb) and up to 15,000 parts per million (ppm) levels. The unique PID design ensures that the NEO provides outstanding sensitivity, stability and reproducibility. It also includes real-time data monitoring, 3 point calibration, a built in cross factor list and an easily replaceable PID lamp.

Supplied with; Hard transport case with pre-cut foam, VOC monitor, wireless communication inbuilt (as specified), rubber boot, external filter (5 pcs), lamp cleaning and tool kit, charging adapter and cable, and quick start guide.

NEO PID Benzene Specific

The PID NEO Benzene specific is able to detect down to 5PPB up to 200ppm. This makes it not only the ideal choice for Benzene detection but also the most accurate portable benzene detector on the market.

Supplied with; Hard transport case with pre-cut foam, VOC monitor, wireless communication in built (as specified), rubber boot, external filter (5 pcs), lamp cleaning and tool kit, charging adapter and cable, quick start guide, tube holder, Benzene filtering tube (10 pcs) and 5 inches of Tygon tubing for gas connections.

See website for further details.