



Introducing the **TURNKEY® iGAS_{pod}**

The new *iGAS_{pod}* plugs into your *iPM* or *iPM_{plus}* instrument to extend its measurement capability to include pollutant and toxic gases down to parts-per-billion (ppb) concentrations.



Simply plug the pod into a Turnkey® instrument and it's ready for use...

The *iGAS_{pod}* employs multiple, high-stability, 4-electrode electrochemical cells and an optional 10.6 eV photoionisation detector for volatile organic compounds (VOCs)

The signals from the electrochemical cells are analysed by proprietary electronics and software algorithm to give exceptional stability with a resolution down to 0.1 ppb. Full scale is typically 2000 ppb depending on gas species.

Matrix correction is applied to compensate for interfering gas species.

Use of state-of-the-art electronics means that, when at standby, the iGASpod draws only 20 µA (microamps) of current. Hence, it can be fitted with lithium ion manganese oxide (LMO) coin cells to always keep the electrochemical cells biased. This means there is no switch-on delay while they stabilize. The internal battery lasts for 2 years, the same as the expected life of the electrochemical cells.

There are two variants of the iGASpod:

1. Fitted with up to four electrochemical cells to simultaneously measure up to four pollutant gases
2. Fitted with a photoionisation detector (PID) and up to three electrochemical cells

The PID has a 10.6 eV ultraviolet lamp. This can be operated continuously or, to conserve power and lamp life, intermittently. Expected lamp life is 5000 hours.

The iGASpod is factory calibrated. It memorizes what gas species it is measuring and the respective sensor calibration, offsets and dates. All of this information is uploaded to the instrument when the measurements begin and is available online via airqweb.com or the Turnkey® AirQApp (for Android® or Apple®).

The iGASpod is housed in an anodized aluminium enclosure measuring 65 mm diameter by 25 mm deep plus Bulgin 4-way IP65 connector.

Gas Species	Resolution	Full Scale
Nitrogen dioxide (NO ₂)	0.1 ppb	2000 ppb
Nitric oxide (NO)	0.1 ppb	2000 ppb
Ozone (O ₃)	0.1 ppb	2000 ppb
Volatile organics (VOC)	1 ppb	5000 ppb
Carbon monoxide (CO)	0.1 ppm	1000 ppm
Hydrogen sulphide (H ₂ S)	0.1 ppm	1000 ppm
Sulphur dioxide (SO ₂)	0.1 ppm	1000 ppm

Measurements can be made in volumetric (ppb) or mass (µg/m³) units.

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