

i-PEN Industrial Process control

Electronic Nose

Intelligent Gas Sensors for the Industry

The gas sensor array systems i-PEN are based on our electronic nose technology. The devices were developed for operation in hostile industrial environments. With a design compatible with an industrial standard (19" euroboard format) a very flexible usage is possible.

The module i-PEN-MOD is based on an array of ten gas sensors, the required electronic circuits with a microprocessor and a serial interface for data transfer to a remote PC. The different sensors are built into a very small sensor chamber. Versions with single and identical sensors which can be positioned at different locations are also available (i-PEN-VS).

The systems were developed as OEM-modules for the integration into analytical measurement systems.



- Low Cost μ -Processor based Gas Sensor Array
- Customized Sensor Arrays possible
- Different Versions available (i-PEN-MOD, i-PEN-VS)
- Approved in Different Applications (i-PEN/PCN, KegControl)

Options for PEN2 and i-PEN

Headspace-Sampler:

The PEN-Systems can be connected to headspace samplers from different suppliers. Please contact Airsense for more information about manufacturers of headspace samplers.

Headspace Probe:

A low cost alternative using a manual headspace technique is often also possible. For this purpose a manual headspace probe was developed. Huge samples, which will not fit in the usual 20 or 40ml vials for the headspace samplers, can also be analyzed.

After a signal from the Winmuster Software, which controls the e-nose, the septa can be perforated with the manual probe.

An electrical contact is then closed, which is used for starting the measurement.

The manual probe, as well as the automatic headspace samplers, can be also used in combination with the enrichment unit EDU and the PEN.

Zero Gas

Zero gas is the reference gas which is normally required when working with electronic noses. For some applications it is only necessary to use a charcoal filter, sometimes it is better to use a zero gas generator. Different zero gas generators are available. Please contact Airsense for further information.

Please contact **INGENIERIA ANALITICA** for further information on options, e.g. zero-gas generators or consumables, e.g. charcoal filters, vials, septa, etc.