



## SGA 16 Product Information

The odour measuring device SGA 16 serves the continuous monitoring of odour emissions. Thereby the device detects the composition respectively the pattern of odours.

### Application

Odours arise from the interaction of different chemical substances. So for example, the failure of a system (e.g. ionisation plant) causes an immediate odour development. To recognise potential smell nuisance early and to keep it away from the ambience, odour emissions can be monitored and by that an environment-friendly operation of plants can be assured.

Cases of application for the SGA 16 are for example the monitoring of air purification plants, at waste air of breweries or for general recognition of odour sources.

### Highlights of the device

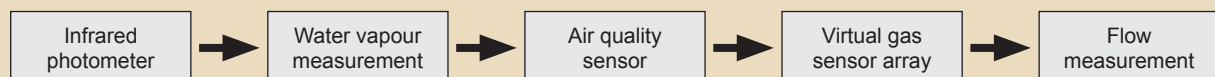
- high selectivity through the use of versatile sensors
- periodical zero point setting against possible drift of the sensors
- plausibility control of the measuring results
- first-class price-performance ratio



### Function

The sampled measuring gas is led into the photometer in the device. On the basis of infrared absorption there the measurement of volatile hydrocarbons ( $C_xH_y$ ), specifically methane ( $CH_4$ ) and carbon dioxide ( $CO_2$ ), is made. For the recognition of the odour pattern a virtual gas sensor array is integrated. This reacts to different concentrations of the volatile hydrocarbons. The registration and allocation of all measuring data is carried out by the internal electronics. By means of the comprehensive evaluation software the stored odour patterns are recognised and evaluated.

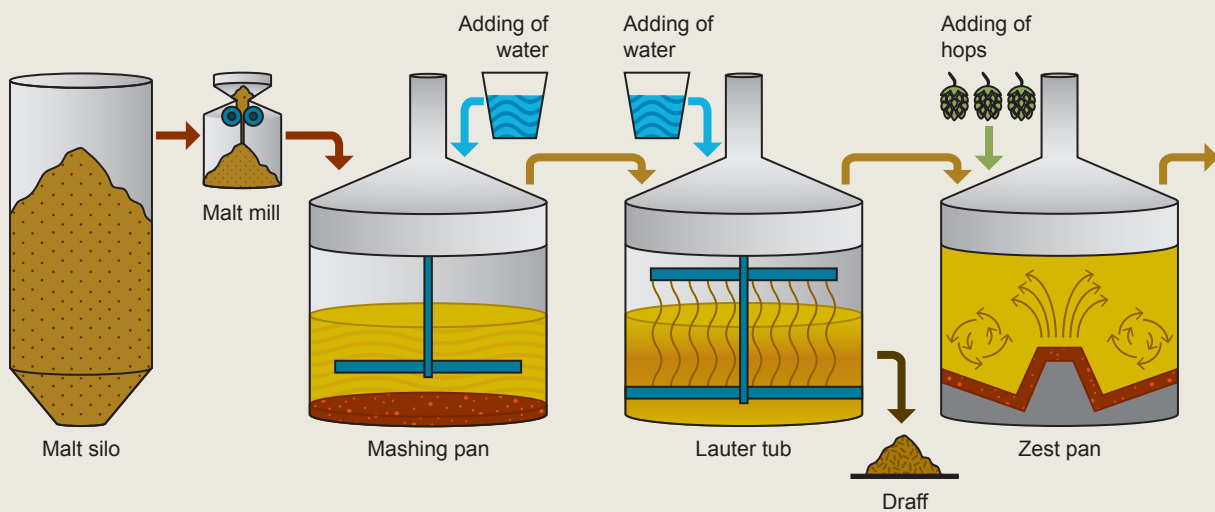
Internal gas flow chart:



### Application example 1: Odour development in breweries

A process of brewing consists of several processes, which cause different odour developments. The following figure shows the possible sources of odour development during the process of brewing. By adding water and increasing the temperature the first typical odours develop. The major odour development by far arises during the cooking in the zest pan.

These odours can also be noticed as smell nuisance in the environment of the the brewery. For early detection the SGA 16 can be used for odour measurement in the brewery hall. The odours from the process of brewing are supplied to the device and compared with predefined odour samples so that respective counteractive measures can be implemented for the hall exhaust air at early stage.



### Application example 2: Detection of boars smells at meat production

Male piglets produce hormones upon their sexual maturity which can initiate a disagreeable boars' smell. This smell can decrease the sales of boars' meat. At slaughtering a definition of these odours is currently made by manual odour tests. In order to standardise the judgement of the smell objectively, with the aid of the SGA 16 a respective check can be made.

The sampling is thereby made via an additional hand-held unit by which the neck fat is heated and the therein stored hormones are volatilised and sucked. Through a connected tube the extracted gas is led into the SGA 16 where the final measurement and evaluation of the odour sample is carried out.

