

# H2 Sensor

For the definition of the nitriding atmosphere



## Hydrogen sensor for nitriding atmospheres

The H2 sensor enables nitriding and carburizing atmospheres to be easily measured. In all applications, only a free inlet to the furnace atmosphere is required. The created electrical signal is a measurement for the hydrogen content of the analysed gas.

Measuring principle: Heat conductivity of the measuring gas in nitrogen, ammonia, hydrogen and carbonic gases.

Can be used for nitriding, nitrocarburizing, oxynitriding, X-nitriding as well as carburizing processes.

Simple installation, e.g. by convection pipe connection which is located within the gas atmosphere.

With calibration gas connection and electric connection via connector.

The sensor works according to the diffusion principle - no exhaust gas via sensor.

The sensor can be connected directly to the 4-20 mA input of the automation device (e.g. recorder, programmer etc.)

The hydrogen sensor for defining the nitriding atmosphere is also available with ATEX approval.

Fields of application:

- Nitriding
- Nitrocarburizing
- Oxynitriding
- X-Nitriding
- Carburizing processes

# Technical Data

- Measuring converter WLD / heat-conductive gas sensor
- Connection temperature at KF flange: < 65°C
- Measuring gas pressure range: 30 mbar up to 10 bar absolut
- Measuring range: 0 ... 60, 0 ... 75, 0 ... 100 Vol.-%
- Output: 4-20 mA linear
- Time response: Output delay 6 ... 20s
- Preheat time: Depending on sensor installation, up to 30 minutes at room temperature
- Dimensions: 105 x 66 x 240 mm (WxHxD)

#### Accessories:

- Documentation
- Power supply unit (optional) 24V/3A, short-circuit proof
- Connecting plug, optional 2 m connecting line with connected plug connector

#### Requirements for use:

- KF16 vacuum flange for connection
- If necessary convection pipe depending on installation, on request

Exemplary installation  
Pit-type furnace

