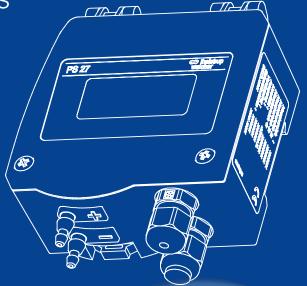


## Measurement technology

Precise pressure measurement technology for smallest

measuring ranges



50 years
Differential pressure technology from halstrup-walcher

# Differential pressure measurement technology as a decisive factor in sensitive environments



We are experts in pressure measurement technology for a wide range of applications. We rely on the most accurate measurement technology and, depending on the application, supplement this with the appropriate housing and functionality - if required, adapted to your specific requirements.

With its pressure measurement technology solutions, the halstrup-walcher company stands for:



#### **Precision**

Our core competence is the low pressure range (single Pascal) below 1 bar



#### **Experience**

Differential pressure measurement technology since 1974



#### Individualization

Specialized in customer-specific developments and variants



#### Quality

A laboratory certified by the DAkkS (German Accreditation Body) since 1999





## Pressure measurement specifically for your application

The requirements for pressure measurement technology differ depending on the industry: while some applications are concerned with ensuring personal safety, e.g. in the case of hazardous contamination, pressure monitoring in other applications is aimed at ensuring process quality or efficient energy management. Our pressure

measurement technology portfolio offers the right solutions for both basic and demanding applications. With over 50 years of expertise in pressure measurement technology, including in the pharmaceutical, food and ventilation industries, we will be happy to advise you.



Application of a P 26 for monitoring and controlling the protective barrier in the aseptic production of vaccines.



### Possible performance dimensions of our products



Application of P 34 in the control cabinet for process monitoring.



Suitable measuring range from 10 .. 100 000 Pa (additionally 0.0001 bar .. 1 bar) uni- and bidirectional



**Highest measuring accuracy** up to  $\pm 0.1\%$  FS accuracy



**Fully automated zeroing** for maximum measuring equipment availability



**Integrated overload protection** for impermissible pressure peaks



**Precise volume flow** measurement due to integrated P/T compensation



Simple set-up through available PC software

### Solutions for continuous pressure measurement

#### Standard transmitter for basic applications

Our economical PS 17 and PS 27 series differential pressure sensors can be used, for example, to monitor the condition and degree of contamination of filter systems by monitoring the pressure drop in real time. This allows the filter to be changed at the right time, saving resources, avoiding downtime and ensuring production quality.

#### Do you know our absolute pressure solutions?

The AD 1000 and BA 1000 can display absolute pressure or barometric pressure and are our environmental monitoring solutions.

#### **High-end transmitter** for demanding applications

The precise differential pressure transmitters in the P 26 and P 34 series meet the highest demands for measuring accuracy and stability, even in small pressure ranges. They can be used, for example, to continuosly monitor pressure cascades in clean rooms or clean production zones, thus ensuring consistent production quality and the necessary personal protection. Thanks to the inductive measuring principle, excellent long-term stability and good temperature behavior are guaranteed. Minimal pressure deviations are detected immediately. In combination with differential pressure transducers, these pressure transmitters can also be used for volume flow measurement.

#### High-end transmitter P 26 / P 34

- High-precision transmitters for the smallest measuring ranges of  $\pm$  10 Pa
- Measuring accuracies of 0.2 % or 0.5 % FS depending on the version
- High overload safety due to integrated valve
- Integrated cyclical zero point correction for maximum long-term stability
- Extensive modular system of variants



To the





• Compact transmitters with linear characteristic curves and optional display

• Measuring accuracy between 1% and 3% FS depending on version

Individual, also asymmetrical measuring ranges up to ± 50 Pa

## Solutions for mobile pressure measurement

Our KAL and EMA mobile pressure measurement solutions make it easy to check installed pressure transmitters in all pressure ranges.

The compact KAL 100 / 200 calibration device and the EMA 200 handheld device can be used as on-site test equipment to check or calibrate differential pressure transmitters in use quickly and easily. This ensures that all sensors operate within specification at all times, which is essential when used in clean room conditions, for example.

The portable, battery-powered **EMA 200 digital pressure gauges** measure positive and negative differential pressure and are ideal for customer service and maintenance work, e.g. on heating, ventilation and air conditioning systems or for filter monitoring, thanks to their ease of use.

The KAL 100 / 200 calibration device is a combination of pressure transmitter and pressure measuring device. It can be used to test and calibrate pressure sensors and other pressure measuring devices for low pressures in a simple mobile manner - connection to an external compressed air generator is not required.

#### Do you need a calibration with certification?

halstrup-walcher is your experienced partner for DAkkS and factory calibrations of the measurand pressure. Our calibration laboratory has been accredited to DIN EN ISO/IEC 17025 since 1999. We use high-precision reference devices that are regularly traced back to the national standard. We offer calibrations for all makes regardless of type and manufacturer.



To the calibration request

#### Advantages of the KAL series

- High accuracy and long-term stability thanks to automatic zero point adjustment, measuring accuracy up to 0.1 % FS depending on version
- Simple menu navigation for switching units, setting calibration points and defining the measuring span (in several languages)
- Generation of positive and negative differential pressures
- Convenient operation and creation of calibration curves via USB interface and PC

#### To the products







## used in more than 45 countries



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**Made in Germany**