

# The submicron is our business!



## The right partner at the right place

- ✓ High precision solutions
- ✓ Contact and non-contact metrology technologies
- ✓ Lean metrology
- ✓ Standard or tailored-made solutions
- ✓ Automation – Turnkey projects

# PFL air gauging systems benefits

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The pneumatic measurement or air gauging units and systems are mostly used for measuring cylindrical workpiece features such as bores and shafts diameters. It is a non-contact measuring technique that performs dimensional and geometric checks of the part. It offers the following advantages:

- Measurements are taken with high reliability, accuracy and repeatability
- Non-contact measurement eliminates the risk of damaging the workpiece
- Pneumatic measurement system can be operated in harsh environment
- Air pressure acts as a powerful cleaner at the measuring points, thus enabling the user to inspect even dirty, oiled and greased surfaces
- Inexperienced users and qualified staff are usually promptly convinced of the safety use and fast and stable results, as tolerances are more and more tighter on the shop floor

Typical applications are measurements of diameters or multi diameters, distances of axes, tapers, and forms checks.



## Our features

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The pneumatic measurement or air gaging units and systems from PFL combine numerous advantages:

- Automatic cleaning of the parts to be measured
- High measuring accuracy
- Repeatability up to 0.1 micron
- Fast and stable results
- Contactless measurement
- Ideal for sensitive parts and surfaces
- Robust measuring elements
- Easy to use and to maintain
- Internal and external features measurement capabilities
- Low sensitivity to thermal variations

# Products range and specification

In the field of the pneumatic measurement products and systems, PFL Group works in full synergy and partnership with the sister companies. PFL has been manufacturing and supplying air gauges for more than 50 years and this long experience is the insurance that you get the optimal solution in term of applicability and suitability. All the units and systems shown here will be supplied under the PFL Swiss brand name. We can supply:

- Air plugs and rings
- Air plugs and rings for ISO taper
- Air forks
- Air converters
- Air to electronic converters
- Various accessories
- Masters and certificates
- Turnkey solutions



Technical specification				
Converter Type	06			
	106			
	207			
Measuring Range	± 10 µm	± 20 µm	± 40 µm	± 80 µm
Repeatability	0,25 µm	0,25 µm	0,5 µm	1 µm
Linearity	Better than 2%			
Response time (Gauge directly connected with the converter)	0.5 s	0.5 s	0.5 s	0.5 s
Air supply pressure	3.5 - 4 bar stabilized at +/-0,1 bar			



Analog air converter



Air to electronic converter

The new air to electronic converter from PFL Group is the most compact and innovative product of its category. It is simple to install, to use and cost effective. Its technical performances make it outstanding and exclusive.

# Standard accessories product range

Our list of accessories is as follows, but not limited to:

- Adjustable ring
- Extensions
- Handles
- Handle with twist locking
- Handle with twist locking, 90° connection
- Ground plate from steel with 90° connection



## Industrial applications

- Automobile
- Aircraft
- Aerospace
- Machine tools
- Medical
- Watch
- Electronic
- Bearings
- Defense
- Turnkey projects



Measurement of 3 diameters and 1 depth in one shot.  
Seat and valve guide



Diameter 140H6, 2x8 air jets :  
Measurement of roundness for  
truck engine bloc



Inspection control cells for  
automotive industry :  
engine bloc



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