

Ultrasonic Flow Transducer

**Technical elegance for
precise measurements
and economic workflows**



N E W !

**Now with SpiroScout technology
also for bodyplethysmography!**

High-precision pulmonary function tests with ultrasound – the new dimension for the simultaneous measurement of flow and respiratory gases – The modern alternative to the pneumotachograph

No detours – head straight for the goal

- No substitute parameters necessary for flow (e.g. differential pressure).
- Direct flow measurement based on digital measurement technology.
- High measurement resolution with 1,000 single measurement points per second – developed by GANSHORN and patented.
- For PowerCube and SpiroScout

Calibration free during running operation – an advantage that pays off daily

- Eliminate one operating step in your daily work and save time and money!
- No erroneous measurements due to pneumotachs being wrongly or not calibrated.

A stable basis for your diagnosis – more comfort for your patients

- The high resolution of 1,000 measurement points per second is the essential condition for reliably determining flow and all derived parameters such as volume or resistance during bodyplethysmographic measurements.
- No perceptible resistance in the breathing insert obstructs the respiration of the patient – especially helpful for patients with respiratory limitations.

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Measurement principle

Two diagonally opposite ultrasound transducers alternately send and receive ultrasonic waves.

Without any air flow inside the breathing insert, the transit time of the ultrasound waves is the same in both directions.

Any air flow inside the insert will accelerate the waves in one direction and slow them down in the other. The higher the air flow, the higher the difference between the ultrasonic waves.

All other factors (gas properties, humidity, temperature) are the same for both directions and cancel each other out.

Unaffected by humidity and temperature

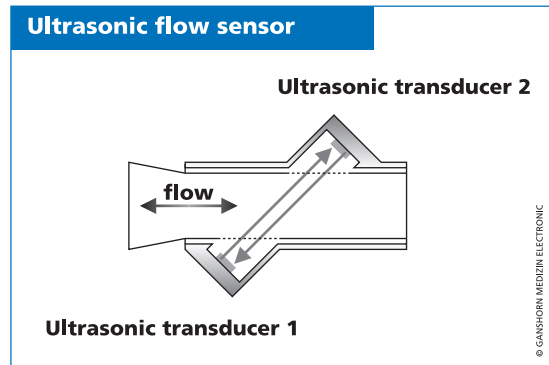
- No changes of measurement values due to changing ambient conditions or the humidity in the respired air.
- Ready to use after cleaning, without having to be left to dry for long periods.

Suitable for any cleaning method

- Easy cleaning: designed without any moving parts or inaccessible corners.
- The breathing insert comes as one solid piece and can be changed quickly and easily.
- Suitable for disposables (bacteria filters): a permanent breathing insert with filter connection is available for SpiroScout.

Reliable and durable

- Robust thanks to its solid design.
- Designed without any moving or sensitive parts.



Technical data

01257 0020 Ultrasonic flow transducer SSC for PowerCube-Body NEW! Now with SpiroScout technology!

An alternative to differential pressure measurement with variable orifice for PowerCube-Body

Measurement principle: ultrasound transit time measurement;
Measurement range: 0 bis 20 l/s
Sampling rate: 1,000 Hz
Accuracy: $< \pm 2,0\%$ or 50 ml/s (the higher value applies)
Resolution volume: 10 ml/s
Flow resistance at 1 l/s: not measurable
Material: stainless steel, anodized aluminium

01340 0101 SpiroScout®

PC-based pulmonary function system for determination of slow and forced spirometry, flow/volume-curve, MVV
Contact us for more options.

01942 0626 Permanent breathing insert SpiroScout for use with bacteria filters

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GANSHORN operates with a certified quality assurance system in accordance with DIN EN ISO 9001:2000 and 13485:2003

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Illustrations shown do not necessarily correspond with the basic equipment. Subject to technical modifications and improvements without notice, as well as to the availability of the devices and options mentioned. 06/2010