



## Product summary

### 1. VPFlowMate insertion flow meter

For mobile measurements, stationary compressed air measurements, energy audits. Flexible application and easy to install by using compression fittings.

- Measurement ranges: 0..20 m<sub>n</sub>/sec, 0..80 m<sub>n</sub>/sec; 0..150 m<sub>n</sub>/sec; other measurement ranges upon request
- Outputs: RS232, 4..20 mA



### 2. VPFlowMate in-line flow meter

For consumption measurements on machines, measurements in smaller compressed air networks. To be mounted into the line.

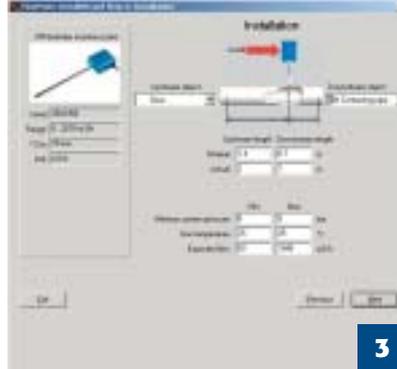
- Measurement ranges: up to 700 m<sup>3</sup><sub>n</sub>/hr (2")
- Outputs: RS232, 4..20 mA



### 3. VPConfig & VPFlowDAQ software

Using the VPConfig program you can configure and read out the VPFlowMate. You can change the display settings, program the tube diameter or reset the totalizer. The program leads you step by step through the installation.

With VPFlowDAQ you can follow your measurement real-time (graphical function), store and process data (datalogger function), and print measurement reports.



### 4. Plug & Play Accessories

For the VPFlowMate, a unique line of installation accessories is available for quick, easy and trouble-free installation. All installation accessories are supplied in a solid IP55 housing suitable for wall mounting. Supplied ready to be plugged in.

#### Basic version

The basic version provides the flow meter with the supply voltage required. On the basic version, an RS232 connector is available for connection to your computer.

#### Basis + Display

This version is provided with a back-lit LCD display. It shows simultaneously both flow and total reading.

#### Basis + Display + Datalogger

The built-in compact flash logger enables you to store data for an extended period of time. Using the VPFlowDAQ software, you can read out the compact flash card on your PC. You can subsequently print compressed air consumption graphs or export data to a spreadsheet program.



# The savings are there just to be picked up

## **So, contact your VPFlowMate dealer now.**

Would you like to have more information about the VPFlowMate and its applications? Then, just contact your nearest VPFlowMate dealer. To secure further important information about saving on your compressed air consumption.

Visit **[www.vpinstruments.com](http://www.vpinstruments.com)** for product information, datasheets, questions and answers, and software-related support.

## **Your VPFlowMate dealer:**

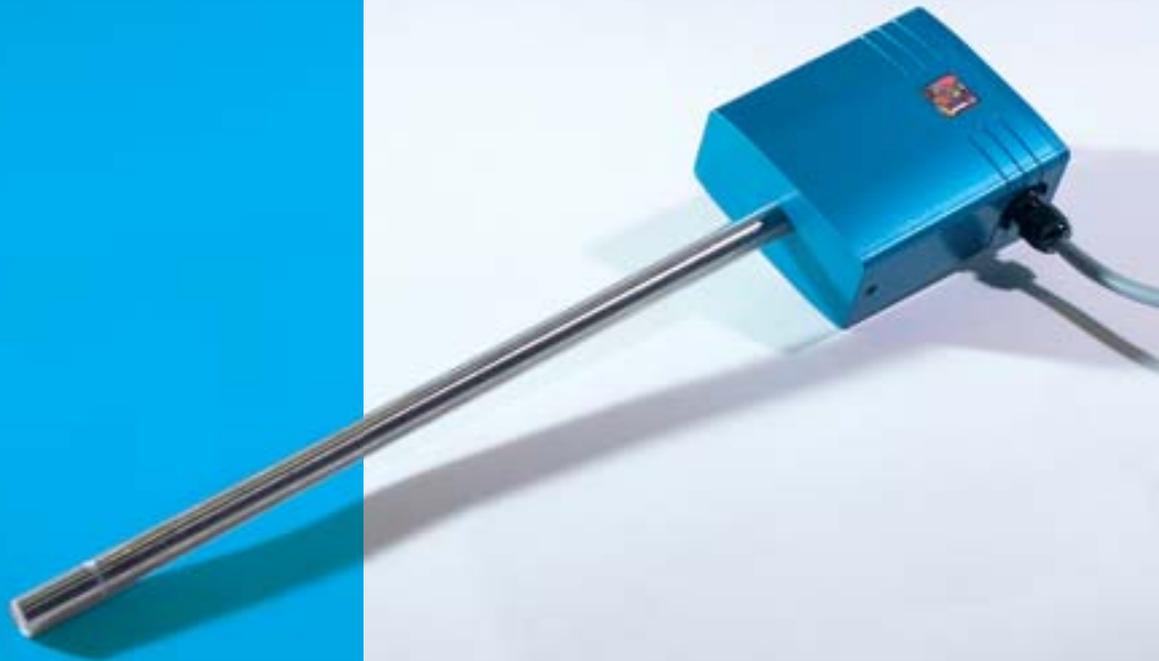




**VP** INSTRUMENTS

## **VPFlowMate**

**The energy meter  
for compressed air**



- **For consumption measurements, machine testing, compressor monitoring.**
- **Instant insight into compressed air costs.**
- **Targeted energy saving.**
- **Versatile applications.**

- From now on, measure effortlessly the flow and total consumption of machines.
- Save tens of percentage points on energy by adjusting the air consumption of your installations more economically.
- Choose the right compressed air equipment by measuring consumption in advance.
- Make costs visible, and carry out targeted maintenance.

## VPFlowMate

### The energy meter for compressed air



**Measuring = knowing = saving energy**

**The VPFlowMate® is a new digital mass flow meter for compressed air.**

**The VPFlowMate combines ease of measurement with high-quality sensor technology.**

**Sensor, signal processing and transmitter have been integrated into one compact housing.**

Compressed air is expensive. In fact, it can be about twenty times more expensive than electricity. Enough reason then to use it economically.

Practice shows, however, that some 30% of generated compressed air is still lost due to leakage, incompetent use and overdue maintenance.

The VPFlowMate enables you to chart these losses easily. For example, when setting and specifying pneumatic equipment. To this end, the VPFlowMate is an indispensable tool for measuring nominal air consumption.

The VPFlowMate can also be used effectively for internal compressed air cost allocation to various departments or operating processes. By installing a VPFlowMate at each department, you will be able to chart these costs faultlessly.

In addition, the VPFlowMate contributes to increasing energy awareness at your company. The compressed air costs will become visible. Insight into costs will induce a more economical behaviour of your personnel. The total consumption of compressed air will decline as a result.



## Modern sensor technology

Due to the use of state-of-the-art sensor technology, you can rely on highly accurate measurement results.

The flow meter operates according to a thermal mass flow principle. The flow causes the sensor to cool down.

This cooling is converted into a measuring signal and digitally processed.

The VPFlowMate offers various signal outputs: Analog via a 4..20 mA or digital via RS232.



*The unique, patented measurement probe ensures that moisture (in the form of water drops) hardly affects the measurement.*

*The sensor chip measures as it were 'behind an umbrella' so that moisture globules are diverted and only air comes into contact with the sensor.*

*The sensor provides a direct mass flow readout: so, adjustments are made automatically for temperature and pressure variations.*

## Measurement tool affording flexible use

Whether the measurement of compressed air consumption is performed on a temporary or permanent basis, with the VPFlowMate you will have an excellent tool at your disposal.

The VPFlowMate insertion probe can be applied in various compressed air lines ranging from 2 inches (50 mm) to 12 inches (300 mm).

The flow meter is set using special configuration software. You are guided step by step through the installation, thus making it quite simple and easy for you.

### Measurement range guideline, 80 m/sec probe

G (inch)	DN (mm)	Maximum measurable flow (m <sup>3</sup> <sub>n</sub> /hr)*
1,5"	40	360
2"	50	560
4"	100	2260
6"	150	5090

\* measurement ranges in normal cubic metres per hour, therefore converted to 1013.25 mbars and 0 Centigrades





## Examples of application

A steel plant using the VPFlowMate recorded 1500 m<sup>3</sup><sub>n</sub>/hr of air being consumed in the weekends. This was costing the plant about 3600 kWatts per twenty-four hours. This amount of air consumption proved to be caused by the exhaust system. By adjusting this system more efficiently it was possible to reduce consumption by half to 750 m<sup>3</sup><sub>n</sub>/hr. On the basis of 8,000 running hours per year, this translated into a saving of some 42,000 euros on an annual basis.

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**Before measurement: 1500 m<sup>3</sup><sub>n</sub>/hr**

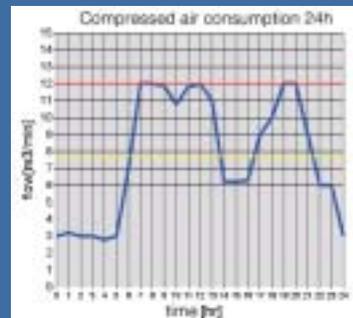
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**After measurement: 750 m<sup>3</sup><sub>n</sub>/hr**

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**Saving: 42.000 euros per year\***

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An assembly plant needed a new compressor. The power of the existing compressor was 37 kWatts. By charting compressed air consumption, it was shown that less than 2 m<sup>3</sup><sub>n</sub>/min of air was being used on Tuesdays and Fridays. They therefore opted for a combination of a 22-kWatt and a 15-kWatt compressor. This resulted in a saving of 4,000 euros per year.

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**Before measurement: 37 kWatts**

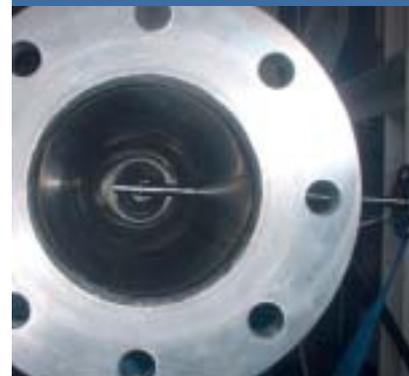
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**After measurement: 22 kWatts + 15 kWatts**

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**Saving: 4.000 euros per year**

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Since having installed several VPFlowMate compressed air meters, a production company can continuously monitor compressed air consumption. Statements of total air consumption are made on a monthly basis. By better adjustment of the installation and making personnel more energy-conscious, it proved possible to realize a 10% saving. On the basis of 6,000 running hours per year, this comes out at 6,300 euros in actual savings.

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**Before measurement: 1500 m<sup>3</sup><sub>n</sub>/hr**

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**After measurement: 1350 m<sup>3</sup><sub>n</sub>/hr**

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**Saving: 6.300 euros per year**

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*Savings may fluctuate on the basis of kWatt-hour price. In these examples, a kWatt price of 7 eurocents is taken as an average.*