



Datasheet

DIFF Automatic Air Volume Flow Meter

The Observator DIFF Automatic is a unique air volume flow meter, whose operation is based on the zero method. With this method the resistance of the measuring instrument itself is compensated. This is why it is measuring accurately because the characteristic of the air distribution system is not influenced. You can use it for measurements of supply and extract air volume flow at grilles, diffusers etc.

The DIFF can be used for example for checking and to adjust ventilation systems housing and utility. So it will avoid sick-building syndrome.

It is ideally suited for commissioning specialists, facilities managers, health and safety specialists, test engineers and ventilation installers.

Features

- Full automatic, quick and accurate pressure measurement
- The characteristic of the air distribution system is not influenced by the measurements
- Easy digital read-out by the possibility of different measuring positions
- Indication of flow direction and air temperature
- Data logging by SD-card and use with pc-software DIFFiner
- Ergonomic design and light weight for easy one person operation
- Measuring in accordance with worldwide standards
- Energy, time and so costs saving
- Divergent applications

Specifications

- Measuring range: 10-400 m³/h, 2,78-111 l/s, 5,89-235 CFM and -15 to +70°C, 5-158°F
- Working conditions: -10 to +50°C, 0-95% RV, (not condensating)
- Resolution display: 0,1 <100>1 m³/h, 0,1 °C
- Resolution zero pressure meter: < 0,2 Pa
- Accuracy: ±3% of reading ±1 m³/h, ± 0,5°C
- Power supply: 4x 1,2 V AA-size 2700 mAh NiMH battery
- Battery life: 8 hours fan in continuous operation at 75 m³/h
- Auto Power Off: low battery or after 10 minutes at no use
- Dimensions: 25x51xØ20cm
- Weight: 3 kg incl. batteries

Options

- Fabric Hood (Nylon) incl. aluminium frame and fibre rods 400x400, 600x600mm, 310x1234 or 310x1534mm
- Extra rechargeable battery set
- Adapter charger EU-UK 3pin
- Plastic transparent Hood 325x325x(h)220mm*
- Upgrade datalogging incl. 2GB SD-card and pc-software DIFFiner software*

General description

This electronic portable instrument is special designed for accurate measurement of air volume flows of grilles, diffusers etc. Measurements are done by the ZEROMETHOD. This principle of measurement is written in many International Standards.

The pressure that is build-up by the instrument itself, because of the internal resistance, is by this zero method automatic compensated against the atmospheric pressure outside the instrument.

The pressure compensation is done by a build-in, special designed, fan which is controlled by a differential pressure sensor.

The indication is controlled by a sensor which is measuring the speed of the fan and is converted by the electronics in read-out in m³/h (also possibility to read-out in cfm or l/s). After 3-20 seconds (depending on the actual pressure) the digital instrument is indicating the volume flow which for example is been blow-in or exhausted by a grill.

The zero point is always maintained by the DIFF Automatic, which is essential by measurements of fluctuating flows. The meter is also recognizing the flow direction and is indicating this on the display.

Measurements can be done on most measures of blow and exhaust ornaments. It is possible to measure big grilles in parts because the DIFF is not disturbing the blowin or exhaust air model of the grill. The sum of the measurement is the flow through the grill.

The optional hoods are produced of strong nylon and aluminium frames and can be mounted with fiber rods. With these hoods it is also possible to measure big grills for example as used in the utility.

*It is standard delivered with data logging by SD-memory card, pc-software DIFFiner for measuring reports, calibration certificate, manual, four rechargeable batteries, charger (power supply 100-240VAC50Hz/12VDC-1.5A car use), plastic Hood 325x325x220(h) mm and a carrying case.



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oriented company with a worldwide distribution network and offices in Australia, Germany, the Netherlands, Singapore and the United Kingdom.

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