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ORIFICE FLOWMETER

Features

- **Accumulator-operated
(protected against deep-discharging)**

Operating period 8 h
Ready for operation also during
charging

- **Display of**

V: Operating-l/min resp. operating-
m³/h

N: Nm³/h (standard-m³/h, related to
273 K and 1013 mbar resp.
760 mm Hg)

dV: Deviation of the candidate sampler
from 2,3 m³/h in percent

PA: Ambient pressure in mbar

TA: Ambient temperature in °C
(measured in the entrance tube of
the orifice)

PD: Pressure drop across the orifice
plate in mbar

BA: State of charging in percent

- **Measuring ranges:**
1. 13,3 – 53,3 l/min resp. 0,8 – 3,2 m³/h
2. 30,0 – 70,0 l/min resp. 1,8 – 4,2 m³/h

- **Measuring uncertainty: ± 1%**



**Orifice Flowmeter
according to ISO 17025
(available with certificate)**

**Directly to put on SEQ47/50
(Adapter for other instruments)**

Description

The orifice flowmeter is designed for outdoor use as well as for the use in the laboratory. The measuring principle "orifice plate" is completely traceable to the basic quantities temperature and pressure and, thus, complies with the requirements of ISO 17025.

The flow rate is measured by means of the temperature- and pressure-compensated orifice flowmeter according to Bernoulli's law and subsequent conversion to ambient conditions by Boyle-Mariotte's law in **operating-l/min** respectively **operating-m³/h**. Besides, the flow rate is calculated and displayed in **standard-m³/h (Nm³/h – related to 273 K and 1013 mbar respectively 760 mm Hg)**.

The measuring device can be directly put on the sampling tube of the SEQ47/50 without using an additional adapter. **For the use at other samplers, e. g. the KleinfILTERgerät LVS3/MVS6 or automatic instruments an adapter with hose nipple for a 9-mm-hose (inside measure) is available.**

The device is equipped with an accumulator, which allows uninterrupted operation over **approximately 8 hours**. The accumulator is protected against deep-discharging. The device is also ready for operation during charging.

The reading of the state of charging (in percent) of the accumulator is not linear. When the reading is blinking, the accumulator should be re-charged.

A **tool case** containing the flowmeter and the charger belongs to the scope of delivery.

The flowmeter can be delivered with DAKKS / DKD-Certificate (German Calibration Service).

Technical Data

Flow rate

1. 13,3 – 53,3 l/min resp. 0,8 – 3,2 m³/h
2. 30,0 – 70,0 l/min resp. 1,8 – 4,2 m³/l

Measuring uncertainty

± 1% of set point

Power supply

Accumulator / mains operation

Dimensions

Housing of electronics

Width: 180 mm

Height: 180 mm

Depth: 100 mm

Tube of orifice

Width: 40 mm

Length: 258 mm

Weight

2 kg