



Gas Flow Meter FM4/04 & FM4/60

Ideal gasflow
measuring
equipment for
the smallest - as
well as discontinuous - flows

Specially
designed for
thermo-analysis
and process
technique



FM4, the gas flow meter for smallest volumes and universal applications

General

- ➔ Ideal gasflow-measuring equipment for the smallest flows
- ➔ Especially suited for thermoanalysis and process technique
- ➔ Closed system, toxic gasses can be drawn off
- ➔ Excess pressure or partial vacuum balanced out by means of gasflow through the barrier fluid

Measurement range

- ➔ Flow quantities at
FM4/04: max. 4 l/h or 70 ml/min
FM4/60: max. 60 l/h or 1000 ml/min
- ➔ Totalizer up to 999.999 l
- ➔ Integrator with analog output for 1000 pulses: 0...10 VDC
- divider for 1, 10, 100, 1000 and 10'000 l/10Vdc
- when overrunning, starts again at 0
- ➔ Puls output 5 VDC for external processing:
- un-calibrated with approx. 100 pulse/ml (depending on model and tubes)
- pre-calibrated with 1 pulse/ml

Calibration and accuracy

- ➔ Simple calibration with water by weighing or gauging the capacity by liters
- ➔ Pump can be calibrated to 1 pulse/ml thanks to divider 1...999; typical 100 pulse/ml (depending on model and tubes)
- ➔ Pump rate can be preset, therefore gives the most optimal calibration accuracy

- ➔ Accuracy: typ. 0.5% (FM4/04) to 1% (FM4/60) or 2 ml, whatever the greater

Measuring principal

- ➔ Pump switches on at excess pressure of approx. 3 mm H₂O (0.3 mbar)
- ➔ Capacitive measuring system. Does not come into contact with the barrier fluid
- ➔ Barrier fluid can be any type of watery solution; can be covered by silicon oil
- ➔ Parts in contact with gas (only glass or silicon) easily removable for cleaning

Brief technical data

Voltage	230 or 115 VAC, please specify
Frequency	48 to 62 Hz
Power	50 VA
Battery	3.6 V for totalizer
Output	Analog 0 to 10 VDC, max. 1 mA, resp. current sink 4 to 20 mA, U > 13 VDC D/A converter 10 bit
Raw pulses	Digital pulse +5 VDC CMOS
Dimension	width 295 mm height 320 mm depth 280 mm
Weight	10.5 kg