TCR TECORA®
POLLUTION CHECK

OUTDOOR AIR QUALITY

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Multifunction Calibrator
FLOWCAL AIR

Main Features:

- Reference calibrator to measure:
  - ✔ Flow;
  - ✔ Absolute Pressure;
  - ✔ Differential Pressure;
  - ✔ Temperature.[1]

- Flow calibrator with Interchangeable measurement cells Flowcell Air, available in different ranges;

- High precision pressure calibrator, with thermal drift compensation device;

- Creation of calibration report;

- Creation of measurement log directly on the USB Key;

- Power supply with alkaline or rechargeable batteries AA type, replaceable by customer;

- Battery autonomy up to 90 hours;

- Internal memory capability up to 256 Report;

- Available with ISO 17025 accredited laboratory certificate (optional).
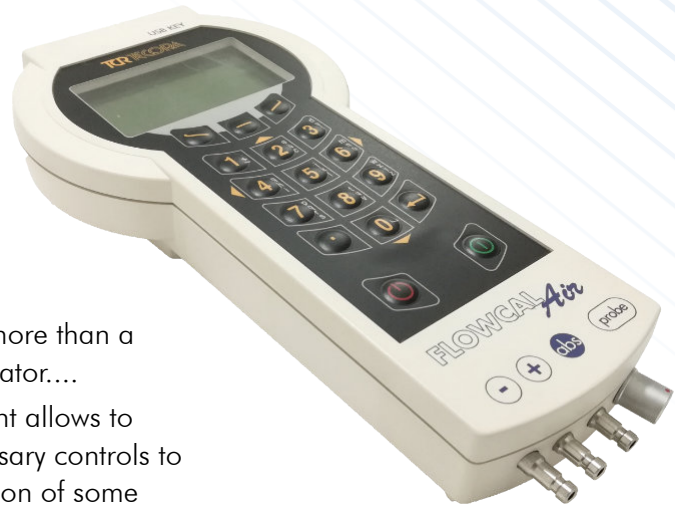
FlowCal Air, is more than a simple flow calibrator....

A single instrument allows to perform all necessary controls to verify the calibration of some parameters, which are normally measured by sampler, like flowrate, pressure and temperature.

This characteristic makes **FlowCal Air** unique to test the accuracy of an instrument and to follow a quality system procedure.

Measurement traceability

This is very important to follow a quality system procedure. **FlowCal Air** generates a calibration report, containing the following data: cell in use, calibration expiration date, ambient conditions during verification test, deviations, test date and hour, etc.

It is no longer necessary write paper reports.

FlowCal Air has an USB port: to download the report, simply insert and copy files onto a common USB key.

Sensor and measurement calibration have been performed with high accuracy and care. Each sensor is calibrated through an accurate procedure and is traceable to standards.

Each instrument is supplied with a calibration certificate or, optionally, with ISO 17025 accredited laboratory certificate.

Flowrate cells FlowCell Air:

The flowrate cells, **FlowCell Air**, are calibrated individually: each cell saves on its microchip all the information for the calibration traceability.

How to use the measurement cell:

With **FlowCal Air** it is very simple: just connect the cell to the instrument and switch it on. Immediately the cell will be recognized, therefore will be available for the flow measurement.
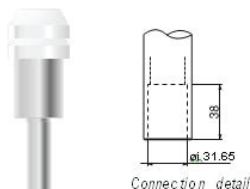
Each cell has an ambient temperature sensor screened from the solar beam.

INNOVATION MADE IN ITALY
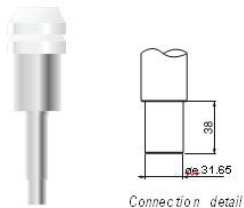
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Cell Models and Features:

HI Flow Venturi

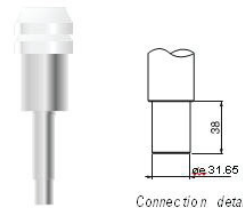| Range	150 - 600 l/min
Flow measurement accuracy	1% f.s.
Cell material	Anodized aluminum
Built-in Temp. Sensor accuracy	Better than 1% ±0.2 °C
Working Temperature	-20 +60°C
Connection	male fitting diam. 31.65mm
Application	Hi Volume samplers for micro pollutants and PM1
Code	AB99-008-0010SP
Hosebarb for Hi Flow cell	AB99-008-9910SP

MID Flow Venturi

Range	10 - 60 l/min
Flow measurement accuracy	1% f.s.
Cell material	Anodized aluminum
Built-in Temp. Sensor accuracy	Better than 1% ±0.2 °C
Working Temperature	-20 +60°C
Connection	female fitting diam. 31.75mm
Application	PM10/2.5 samplers, portable and isokinetic samplers
Code	AB99-008-0011SP
Hosebarb for Mid Flow cell	AB99-008-9911SP

MID 1 Flow Venturi

Range	30 - 100 l/min
Flow measurement accuracy	1% f.s.
Cell material	Anodized aluminum
Built-in Temp. Sensor accuracy	Better than 1% ±0.2 °C
Working Temperature	-20 +60°C
Connection	female fitting diam. 31.75mm
Application	PM10/2.5 samplers, portable and isokinetic samplers
Code	AB99-008-0016SP
Hosebarb for Mid Flow cell	AB99-008-9911SP

LOW Flow LF1060(*)

Range	0.5 - 10.5 l/min
Flow measurement accuracy	1% f.s.
Cell material	AISI 316 steel
Built-in Temp. Sensor accuracy	Better than 1% ±0.2 °C
Working Temperature	-20 +60°C
Connection	Threaded hosebarb 1/4" gas
Application	Personal samplers, analyzers
Code	AB99-008-0012SP

LOW Flow Laminar Cell

Range	0.05 - 1.5 l/min and 0.01-0.25 l/min
Flow measurement accuracy	1% f.s.
Cell material	AISI 316 steel
Built-in Temp. Sensor accuracy	Better than 1% ±0.2 °C
Working Temperature	-20 +60°C
Connection	threaded hosebarb 1/4" gas
Application	personal samplers, analyzers
Code for cell 0.05-1.5 l/min	AB99-008-0013SP
Code for cell 0.01-0.25 l/min	AB99-008-0014SP

Temp.
Probe
Abs. Press.
Diff. Press.

Connection to pressure and temperature sensors

FlowCal used with TCR Tecora High Volume sampler, Echo HiVol

Optional soft case to protect the instrument

Carrying case

Technical Specifications:

Differential Pressure	
Range	0-2500 Pa (0 - 250 mmH$_2$O)
Accuracy	Better than 1% of measure ± 2 Pa
Resolution	0.1 Pa (0.001 mmH$_2$O)
Differential pressure max	30 000 Pa (3000 mmH$_2$O)

Absolute Pressure (static and barometric)	
Range	0-105 kPa (1050 mBar) absolute
Accuracy	Better than 1% of measure ± 0.1 kPa
Resolution	0.01 kPa (0.1 mBar)
Temperature pressure inlet	-20 + 80°C
Range resolution	0.01°C
Accuracy	1% of measure ± 0.2°C

General Specifications	
Working temperature	-20 + 40°C 95% UR
Power supply	N° 4 alkaline batteries type AA (or rechargeable)
Battery autonomy	Up to 90 hours
Display	Graphic LCD 128x64 pixel
Keypad	Membrane with tactile effect
USB port	USB 1.0; 1.1 and 2.0
Weight	550g (including batteries)
Dimensions	115 x 230 x 45 mm

Codes for Orders	
FlowCal Air supplied with: > USB Key 1 Gb > Carrying case > User's manual > Calibration certificate > 4 alkaline batteries type AA	AB99-008-0000SP+
4 rechargeable batteries type AA	AC99-004-9931SR
Battery charger for rechargeable batteries	AC99-004-9930SR
Optional temp. probe inlet	AB99-008-0006SP
Temperature probe	AB99-008-0020SP
Soft case	AC99-004-9900SN

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