

# Constant Flow and Isokinetic Sampler

# MiniBRAVO

"The right compromise between compactness, lightness with performances equal to its bigger brothers!"

## Features

BRAVO series samplers have always been recognized as high quality and reliable sampling systems

TCR TECORA<sup>®</sup> has created a new generation of samplers called "BRAVO X series" to comply to the most stringent regulations and including in this new series of instruments the suggestions received in recent years by sampling technicians all over the world.

The MINI BRAVO sampler is a sampling system equipped with a diaphragm pump in single or double head variants

The regulation of the flow happens in automatic electronic way, visualizable on resistive touch screen.

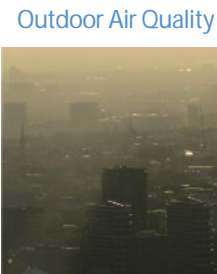


### MAIN FEATURES

- Microprocessor data management
- Flowrate from 1 l/min to 20 l/min (option 50 cc/min to 20 l/min);
- High precision in flow and volume measurement
- Portable constant flow sampler with microprocessor data management
- Electronic flowrate adjustment visualizable on the display;
- Flow regulator and anti-pulsation system to ensure a constant flowrate without fluctuations
- High precision in flow measurement
- Volumetric counter (DGM) in class 1,5 for measuring sampled volume;
- Customer/site/measuring zone Information can be inserted from the keyboard;
- Storage of up to 512 sampling sessions (location data, volume sampled, temperature at DGM input) atmospheric pressure (optional);
- Data report downloadable via USB port as a .txt file with data as it is and normalized;
- Voltage failure memorization and visualization on report;
- Main line vacuum gauge for functional checks and leak test



Industrial Emissions



Outdoor Air Quality



Occupational Health

- Power supplies available: 230 VAC -110 VAC; 12 Vdc single head pump – 24Vdc double head pump (optional internal battery);
- WiFi connection for operation status monitoring and data download on tablet/PC/smartphone (optional);
- Sampling programming/ cycle time, duration, delay, cycle, volume;
- Download data on USB PEN drive;
- Option Isokinetic Sampling using FLOWTEST ST;
- Automatic or manual test menu, leak test, pilot leak test
- Condensation sensor for protection of internal elements (option);
- Possibility of connecting valve ramps for vials or filter holders, sampling heads or emission sampling probes (option);
- Start from external digital contact (option);
- Selective sampling via sonic wind speed and direction sensor (option);
- Sampling at as it is or normalized conditions
- High precision volumetric counter;





## MiniBRAVO

BRAVO X has achieved high standards of quality and reliability and has allowed the development of a series of samplers derived from this technology, including MINI BRAVO. Other samplers are derived from the basic BRAVO X platform

BRAVO X DUO automatic double line sampler

BRAVO X BIO bioaerosol sampler

BRAVO X ISO isokinetic sampler

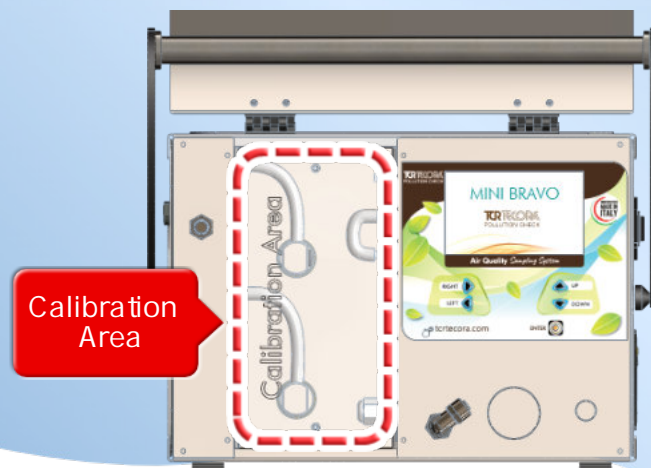
All BRAVO X instrumentation is equipped with flowoscillation/pulsation suppressing technology.

Simple to use, it allows the configuration of all parameters and complete control of the functionalities through a personal computer. The dedicated TCR CONNECT software allows the connection to the instrument, or as an option via WIFI and APP, the control of all function through mobile devices. Finally, it has a solid structure with internal shockproof corner protections.

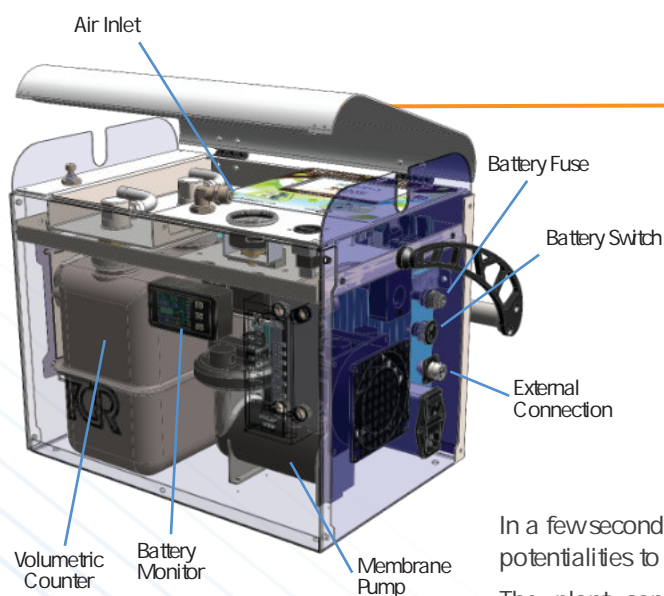
## An Important *New* Calibration Area

### FLOWCAL AIR

Flowcal Air is the reference tool (17025) accredited reference instrument for flow, temperature and pressure.



## MiniBRAVO becomes ISO KINETIC



In a few seconds MINI BRAVO becomes an isokinetic sampler rich of features and potentialities to satisfy many regulatory requirements for atmospheric emissions.

The plant conditions are constantly saved by the FLOWTEST ST and the information necessary to adjust the flow are instantaneously sent to the MINI BRAVO sampler which monitors all the sampling parameters. Every data is saved in the memory of the instrument, where the logs and the final report of the test are saved.





# MiniBRAVO

## TECHNICAL FEATURES

Pump Type	Corrosion resistant single or double head diaphragm pump
Maximum Flowrate (free mouth)	Max 55 l/min double head 25 l/min single head
Pump Flow Adjustment Range	0,1-55 l/min double head 0,1-25 l/min single head (optional 50 cc/min-20 l/min)
Volumetric Counter Scale Range (DGM)	0,016 – 2,5m <sup>3</sup> /h acc. Class 1,5
Flowrate Mesurement	Encoder on volumetric counter
DGM input temperature scale	-50÷ 70°C Accuratezza ± 1°C Risoluzione 0.1°C
DGM operating temperature	-10÷ 40 °C
Ambient humidity sensor scale range	10÷ 99 % UR *
Ambient humidity sensor scale range	0-105 kPa, ± accuracy 0.1 kPa, resolution 0.01 kPa (optional)
Data Management	Electronic Microprocessor
User Interface	IP65 Membrane Keyboard/5" Touch Screen Color Display
Weight	11 Kg double head 9 Kg single head
Dimensions	200 x 315 x 460 mm
Power	230 VAC 50-60Hz   110 VAC 50-60 Hz   24 Vdc option
Consumption	350W
Codes	AA 99-000-0801 SP (Lithium Battery)   AA 99-000-0802 SP

\* Optional



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