inPharmaTEC
TCR Tecora® division

Made in Italy

Bravo X R BIO
Bravo X M BIO

MICROBIOLOGICAL SAMPLER

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Bravo X R BIO

MICROBIOLOGICAL SAMPLER

Normative pneumatic layout

Ideal for microbiological sampling in air!

Bravo X R BIO is an air sampler dedicated to microbiological, bioaerosol sampling.

There is an increasing demand for sampling viruses, spores, bacteria e.g. in ventilation ducts , for sanitization process control, BFE bacterial filtration efficiency check, microbiological contamination control e.g. by COVID-19 (SARS-CoV-2) in workplaces...

TCR TECORA® has designed a sampler suitable for all microbiological monitoring situations , with dedicated software for example for BFE and pneumatics designed with long life HEPA filter to avoid contamination of instrumentation and instrument user.

Bravo X R BIO instantaneously controls the flow by precision digital electronic device, maintains the correct programmed flow set-point counts volume by precision volumetric counter.

Microprocessor board allows MEMORIZATION of all operating parameters with the ability to recall them at any time via IP65 membrane keypad and view them in the large color touch screen display. The USB port allows data download for convenient viewing on a PC.

Bravo X R BIO with 6 m^3/h pump meets regulatory criteria and can be configured for microbiological sampling with the following devices entirely designed and manufactured by TCR TECORA®.

- Flow rate from 0.2 l/min to 100 l/min (1000 l/min opt.)
- High accuracy in flow and volume measurement;
- Microprocessor data management

Compliant with:

ISO 9237, EN 14683, EN 14385, CEN/TS 13649, EN 12919, EN 13284, EN 1911, EN 13211, EN 14790, ISO 9096, CEN/TS 16115-1, EN 1948, EN 17359.

Accessories:

MULTI-STAGE VIABLE IMPACTOR

Andersen 6 Stages Impactor

Inertial impactor principle (e.g., on Petri dish) (sampling on gelatin filters upon request) BFE test - bacterial filtration efficiency (EN14683)
Flow 28.3 l/min.

Code: AC99-120-0002SP

IMPINGER BIOLOGICAL SAMPLER

Impinger set

Central bubbling - tangential Solution:
Sterile distilled water (sol.x PCR), phosphate buffered mineral oil (PBS), culture medium, peptone water, physiological saline
Flow 7 -15 l/min.

Code: AC99-120-BIO-IMPSAM

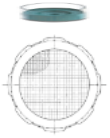
MULTI CYCLONE

Inertial wet cyclone

Solution impact cyclone with proprietary funnelix technology
High collection efficiency
Flow 100 -1000 l/min

Code: AC99-120-BIO-CYCLFUNNELIX

FILTERS WITH SUPERFICIAL GELATIN 80 mm

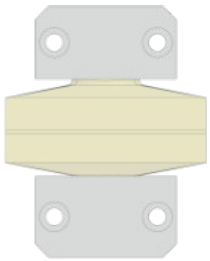


Inertial impact on gelatin (22 cm/s)

PTS sampling heads
Available 25-47-50-80 mm diameter
Flow 40-200 l/min

Code: AC99-120-BIO-SAMGELXX
(XX=diameter)

KIT PUF-HEPA Filter
Inlet and Outlet
Particles Out Free



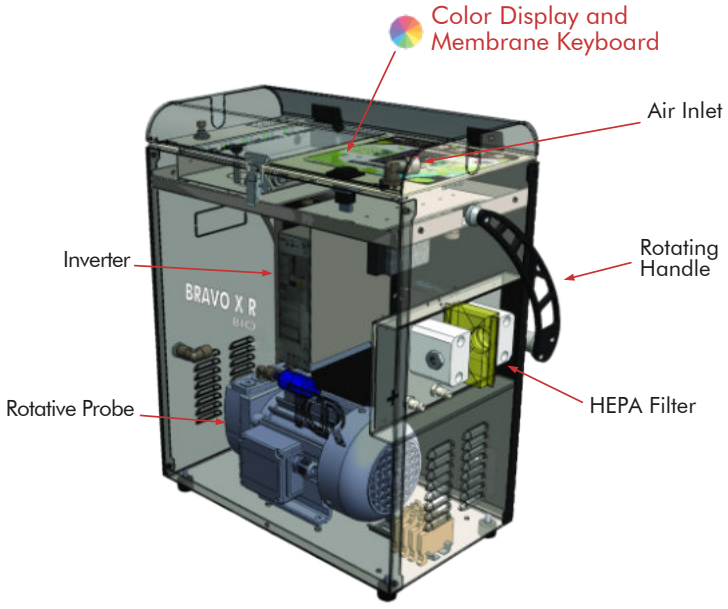
ENHANCED OPERATOR PROTECTION

The use of the HEPA KIT makes it possible to avoid contamination of the instrument's internal pneumatics and the emission of submicrometer particles into the environment, which can be harmful to the operator and the environment in which he or she operates.
The particles can be carriers of microorganisms (viruses, bacteria, spores...), so the implementation of the HEPA kit is recommended in case of prolonged sampling of microorganisms.

Code:
AC99-120-0013SP — KIT FILTERS HEPA N° 5

Bravo X R BIO - Model

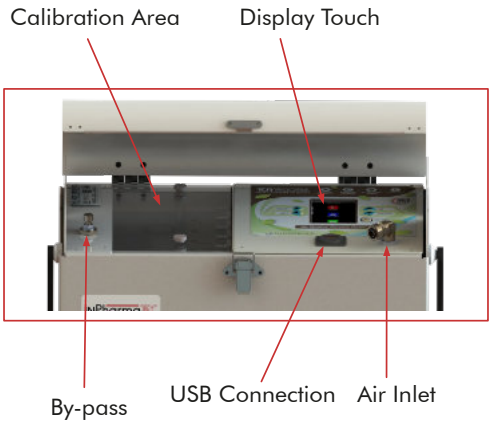
Line 1 Automatic Flow Control



Touch Screen Display

Touch screen display and RS-485 remote connection allow complete configuration and operation of the instrument

"Perfect combination of evolution and ease of use this is... Bravo X R **BIO**"



Technical Characteristics

Bravo X R/H **BIO**

Pump Type	Rotary Pump
Flow (without connection)	60 L min^{-1} (pump 4 m^3 h^{-1}); 100 L min^{-1} (pump 8 m^3 h^{-1}) (Bravo X **H R BIO**)
Minimum settable flow	4 L min^{-1}, Acc. 2%
Gas flow measure sensor	Digital flow meter
Input gas temperature sensor range	-20 ÷ 50°C Acc. 1°C Ris. 0.1°C
Gas humidity sensor range	10 ÷ 99 % UR (optional)
Absolute pressure sensor range	0-103 kPa, Acc. ± 0.1 kPa. Res. 0.01 kPa
Differential pressure sensor range (Pitot)	0-6800 Pa, Acc. >1% (± 2Pa), Res. 0.1 Pa
Sampler control	Electronic µprocessor
User interface	IP65 Keypad / Color Display / Touch Screen
Weight	14Kg
Dimensions	315 x 400 x 200 mm
Power Supply	230 VAC / Internal Battery (optional) 12 V 10 Ah
Power consumption	400W
Bravo X R BIO Sampler	**AA99-000-0740SP**
Bravo X H R BIO Sampler	**AA99-000-0745SP**

Bravo X R BIO

MICROBIOLOGICAL SAMPLER

Bravo XM**BIO**

Pump Type	Membrane Pump
Flow (without connection)	35 L/min^{-1} (pump 2.5 m^3 h^{-1});
Minimum settable flow	0.5 L/min^{-1}, Acc. 2%
Gas flow measure sensor	Digital flow meter
Input gas temperature sensor range	-50÷70°C Acc. 1°C Res. 0.1°C
Gas humidity sensor range	10÷99 % UR (optional)
Absolute pressure sensor range	0-103 kPa, Acc. ± 0.1 kPa. Res. 0.01 kPa
Sampler control	Electronic microprocessor
User interface	IP65 Keypad / Color Display
Weight	11Kg
Dimensions	200 x 315 x 460 mm
Power Supply	230 VAC 50-60 Hz
Power consumption	350W
Bravo X M BIO Sampler	**AA99-000-0746SP**

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