

Sniff-Exp



The **Sniff-Exp** is the Sniff-0 olfactometer two-channel expansion that can handle up to two different gases other than compressed air, actually used in Sniff-0. It can be connected to a daisy-chain network with one or more *Sniff-0s*. It works as a transparent external expansion, with big sealed jars, using as media O₂, Air, N₂O, CO₂, and mixtures.

Sniff-Exp uses a standard controller and highly optimized proprietary electronics to provide complete control over your experiments, ensuring speed, accuracy, and reliability. Additional features, such as automated proportional valves, the measurement of propagation delays, and channel-by-channel auto-calibration, significantly reduce configuration times and ensure maximum repeatability of experimental protocols. The integrated two digital input and two output trigger channels allow you to design experiments in complete freedom.

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Main features



It is compatible with O₂, Air, N₂O, CO₂ and mixtures



Our open-programmable Arduino-based architecture enables you to customize and personalize all aspects. Our standard firmware allows you to program the unit yourself, or you can opt to have us create a customized solution for your research requirements.



USB interface to communicate to the host PC through an emulated serial port supported by all operating systems (system UPGRADES and SETTINGS only)



Custom build electronics module minimises noise and delays to allow a precise valve and motor control as well as synchronization from/to external TTL compatible devices



Connects easily to Sniff-0 and CyNexo CAN bus products



Multiple channels, digital I/Os, serial ports and level of automation configurations available as well as customizable interface for your specific research needs (available upon request)



Elegant and portable rugged protective case to safeguard your equipment wherever you may want to use it

SPECIFICATIONS	
OS support	<i>Windows®, MAC®, GNU/Linux using Arduino Due IDE drivers</i>
Communication	<i>CAN BUS daisy chain connectable, USB 2.0 / USB 3.0 compatible (updates and programming only)</i>
I/O	<i>Digital I/O for real-time triggering applications 2 BNC connector Inputs (0-5V, 10V tolerant) 2 BNC connector Outputs (0-5 V)</i>
Flow control	<i>Each channel is fitted with manual needle valves (knob adjustment), ultrafast solenoid valves (< 4ms) and proportional servo valves (allowing variable odor concentration levels, odor gradients and mixing)</i>
Flow metering	<i>Built-in gas flow stabilizer and flow meter sensitive to +/- 0.01 L/min</i>
Dual-channel	<i>Ability to run two channels simultaneously, each with specific and even variable flow rate and independently of constant flow rate, if desired</i>
Pressure delay measure	<i>Delivery delay measurement function as a built-in firmware function to calculate delivery delay in propagation of odor pressure wave: the manifold can be at any distance from the suitcase unit, triggering signals will be automatically adjusted to compensate for the delay.</i>
Time Saving	<i>Automatic flow calibration and determination of delivery delay per channel</i>
Triggering Speed	<i>Up to 200Hz; Pulses as short as 1ms</i>
Compliance	<i>CE EN 61000-6-3:2007; Meets Electromagnetic Compatibility – Radiated Emissions EN 61000-6-3:2007 standard</i>
Dimensions	<i>380x270x180mm and 8.5 kg</i>
Power	<i>12V operating voltage via 110-220V 50-60Hz provided universal power supply (CE/FCC compliant)</i>
Operating pressure	<i>Up to 6 atm (88 psi), standard operations at 3 l/min (max 6 l/min)</i>
Noise level	<i>Extremely quiet operation (<40 dB @ 1m/3.3ft, excluding compressor)</i>

RELATED PRODUCTS	
Main control unit	<i>Sniff-0</i>
Breathing cycle monitor	<i>Spir-0</i>
Video triggering device	<i>Response Box</i>
Audio triggering device	<i>Spir-0 with Audio Box plugin</i>

OPTIONS / ADD-ONS	
<ul style="list-style-type: none"> • Customizable glass jars (0.2 to 4.2l) • Second flow controller for leak tests • Other gases calibration - please ask for details 	