

## Air Flow Control for Inhaler Testing – the FIA Way

Control and monitoring of the air flow is essential for performance testing of inhalation devices in accord with regulatory standards. FIA engineers have designed a user-friendly family of products that enable full compliance with the test requirements of the European Pharmacopoeia and the US Pharmacopeia. FIA offers three models of flow controllers – basic to advanced – that put you, the USER, in control – repeatably, reliably.

- Need to coordinate MDI dosing and flow sequences? No problem.
- Need to ensure proper flow in real time for DPI testing? Yes. Flow control, however you want it.

AND with the absolute minimum footprint...as small as 23x13 cm PLUS easy-to-read displays that work even when you wear gloves – "hands-on" equipment made with the analyst in mind.



Trigger Model I



Optional output and inputs configurable according to customer needs.



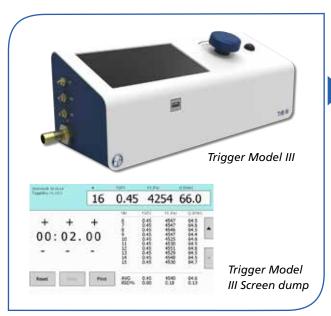
## Trigger Box Model II – Critical Flow Controller

This model builds on the functions of Model I with the addition of differential pressure transducers for measuring and displaying pressure at P1, P2, and P3.

## Trigger Box Model I – Basic

This model gives the analyst the basic functionality in a very compact and easily managed format.





## Trigger Box Model III – Critical Flow Controller with Flow Measurement

Trigger Box Model III has the same functions as Model II but is also equipped with an internal flow meter. With this equipment the user has full control of the testing, including volumetric flow measurement. The latter is enabled by an integrated laminar flow element downstream of the test set-up (e.g. dose collector or impactor). The air flow into the device is presented. The principle has proven to be robust and has been used by FIA's customers for over 25 years but has now been integrated into a compact format for routine use. Further, two additional pressure sensors ("dP") make it possible to do impactor stage mensuration by pressure drop.

|  | TRB I                     | TRB II  | TRB III  |
|--|---------------------------|---|--|
| Flow actuation                                   |                           |   |  |
|  | 0-99 min, 0.1s resolution | 0-60 min, 0.1s resolution   | 0-60 min, 0.1s resolution  |
| Actuation counter                                | Resettable, 8 digits      | Resettable 0-999  | Resettable 0-999   |
| Foot switch                                      | Optional                  | Yes   | Yes  |
| Display  | 4 and 8 digits            | 4.3" touch  | 7" touch   |
| P1 Measurement                                   | No                        | Yes, 0-16 kPa   | Yes, 0-16 kPa  |
| P3/P2 Measurement                                | No                        | Yes   | Yes  |
| Flow Measurement                                 | No                        | No  | Yes, 0-120 l/min   |
| dP (e.g. stage dP)                               | No                        | No  | Yes, high precision 0-6 kPa  |
| Printable data                                   | No                        | Prints new actuations continuously  - Flow "on" time  - Dose number  - P1  - P3/P2 (if < 0.5) | Prints new actuations continuously or print all actuations from reset.  - Date/time of first dose  - Instrument ID  - Instrument ver  - Flow "on" time  - External relay timing  - Atmospheric pressure  - Dose number  - P1  - P3/P2 (if < 0.5)  - Flow  - dP |
| Relay output for actuation of external equipment | No                        | No  | Yes, configurable timing of output relative vacuum opening.  |
| Displayed history of recent actuation data       | No                        | Last 3 actuations   | All actuations from reset.   |
| USB memory stick export                          | No                        | No  | CSV format named with current date time.   |
| Automatic leak test                              | No                        | No  | Yes  |
| Dimensions (cm)                                  | 23x13x13                  | 23x13x13  | 34x13x13   |



