






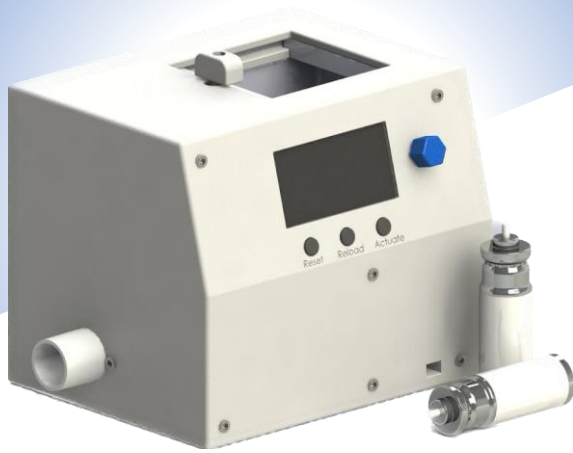
Automated MDI Delivery System

An **automated Metered Dose Inhaler** (MDI) delivery system with **breath detection** that can be connected **in-line** to a ventilator's breathing circuit and **actuate** an MDI canister when **inhalation** is **detected**, during ventilation of **Asthma** and **COPD** patients.




The device actuates an MDI canister when inhalation is detected during ventilation based on the user specified settings for the number of dosages and the interval between dosages.


-  Monitors the air pathway across the device to detect inhalation
-  Accurate and synchronous actuation when inhalation is detected
-  Pulse oximeter add-on to monitor oxygen saturation level and pulse rate
-  Does not require a bedside nurse



Breath Detection System: Constantly *monitors* the *pressure* and *flow rate* of the air pathway across the device. An *algorithm* is used to determine the start of *inhalation* based on the *changes* in the pressure and flow rate of the air.



Actuation Mechanism: Uses an *accurate* and *precise* mechanism to *actuate* the canister, enabling the *synchronous actuation* with inhalation.



Impact: *Improves synchrony* between *actuation* and *inhalation*, *increasing* the *effectiveness* of bronchodilator therapy and helping patients have *better prognoses*.

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