

HAMILTON-G5

gas mixing and flow sensing

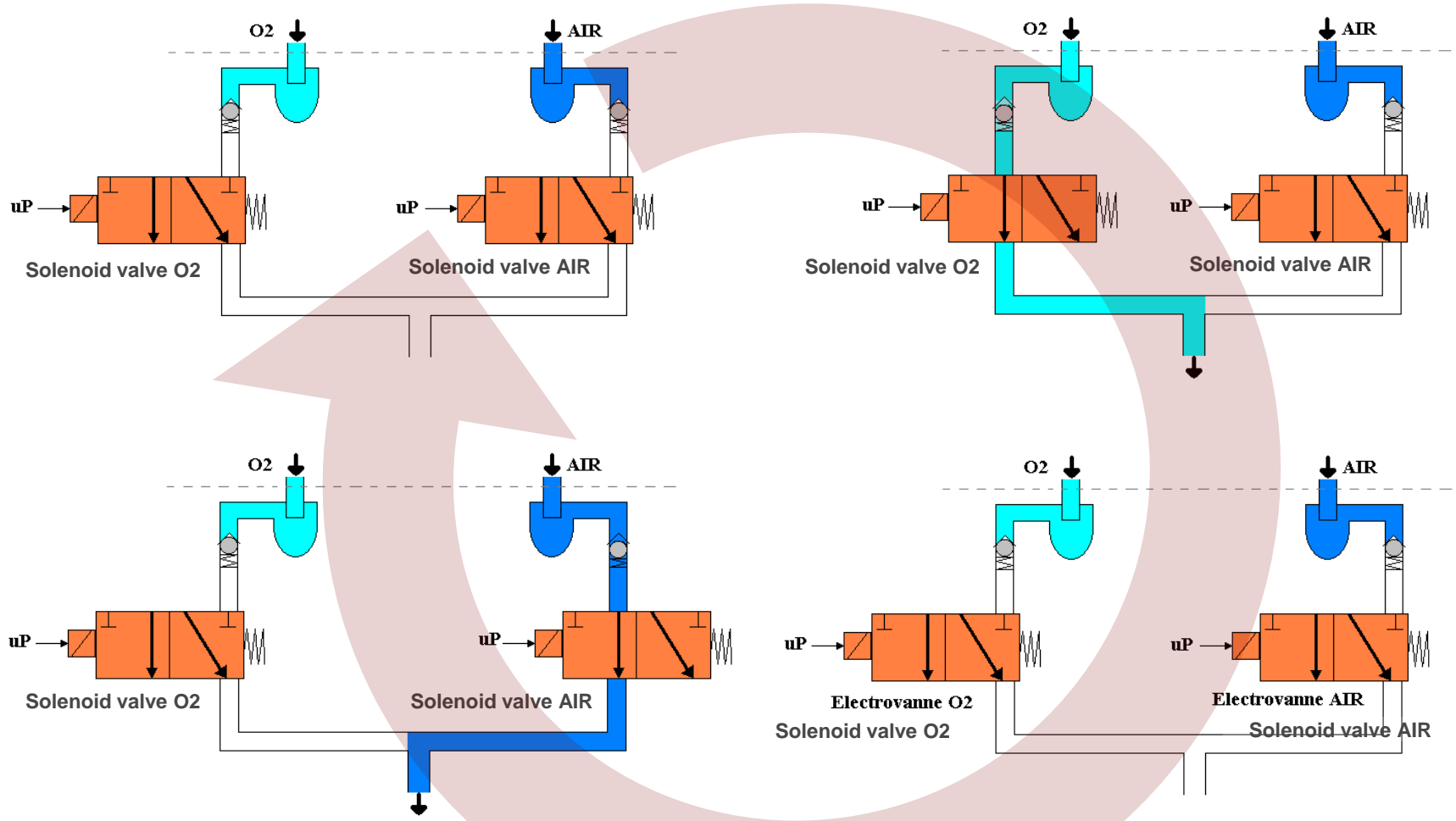
[Version 2012.04.15]

Target

- Gas mixing
- Flow control
- Proximal flow sensing



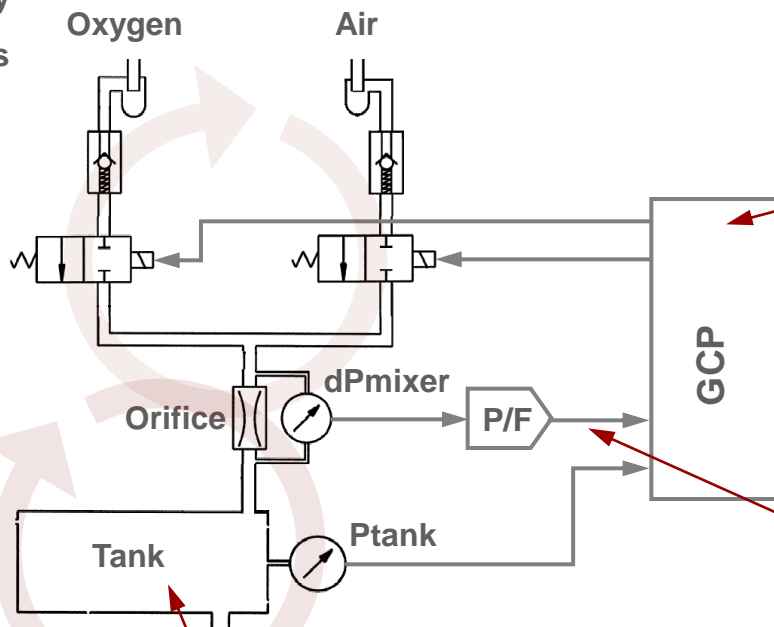
Gas Mixer Cycle



Differential pressure sensor mixer

Gas supply
2 – 6 bars

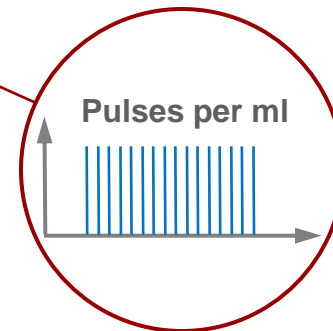
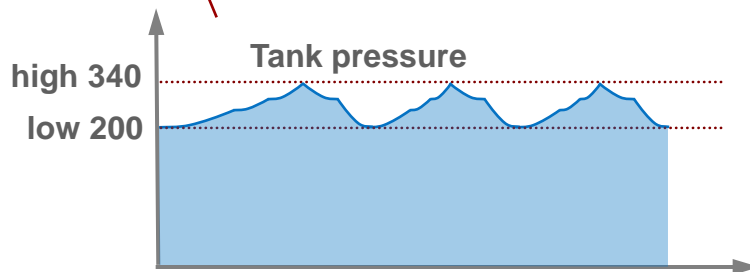
1.



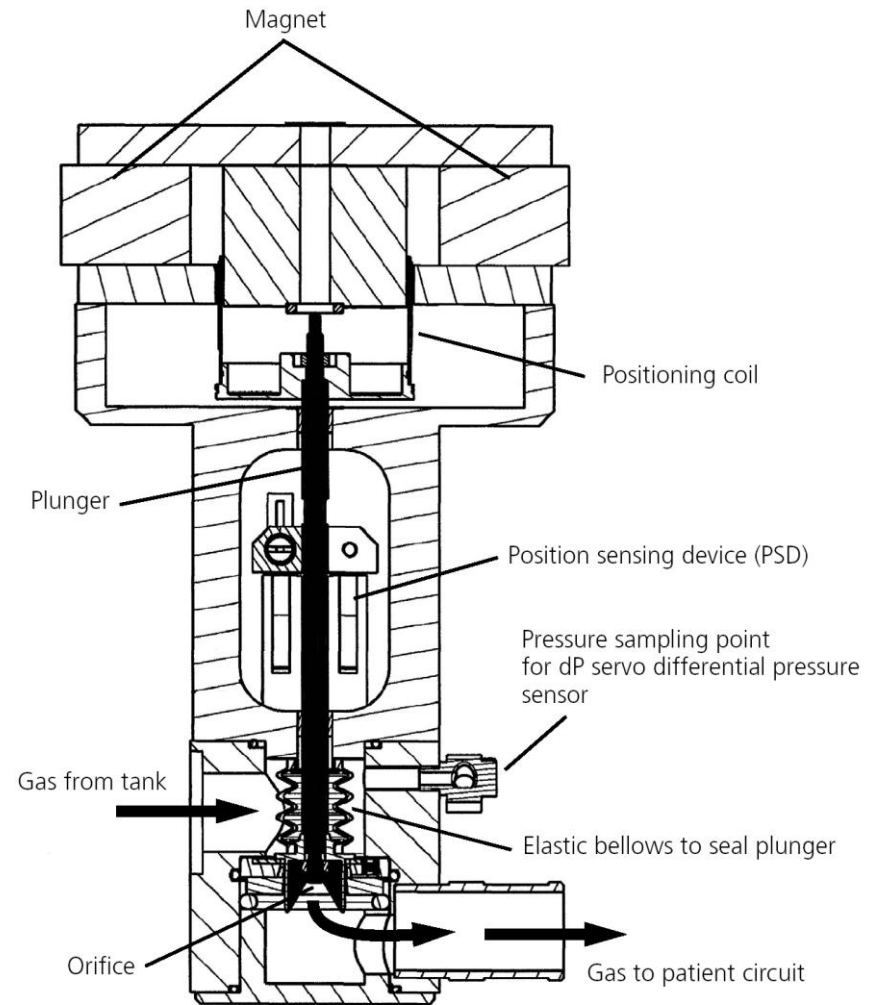
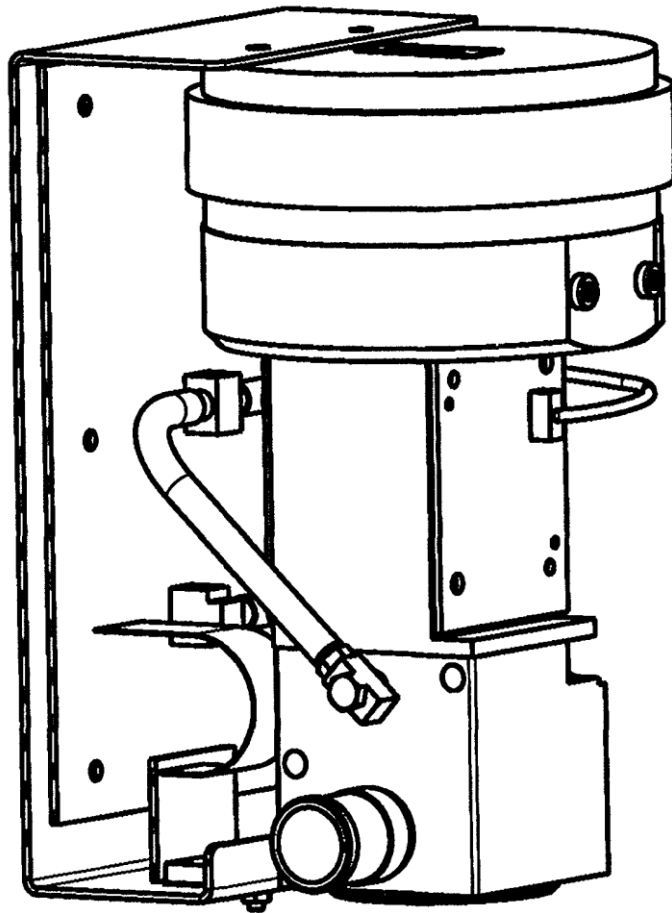
Mixer calibration
Air -> 4 pulses per ml
Oxygen -> 4.4 pulses per ml

2.

Fix Thresholds

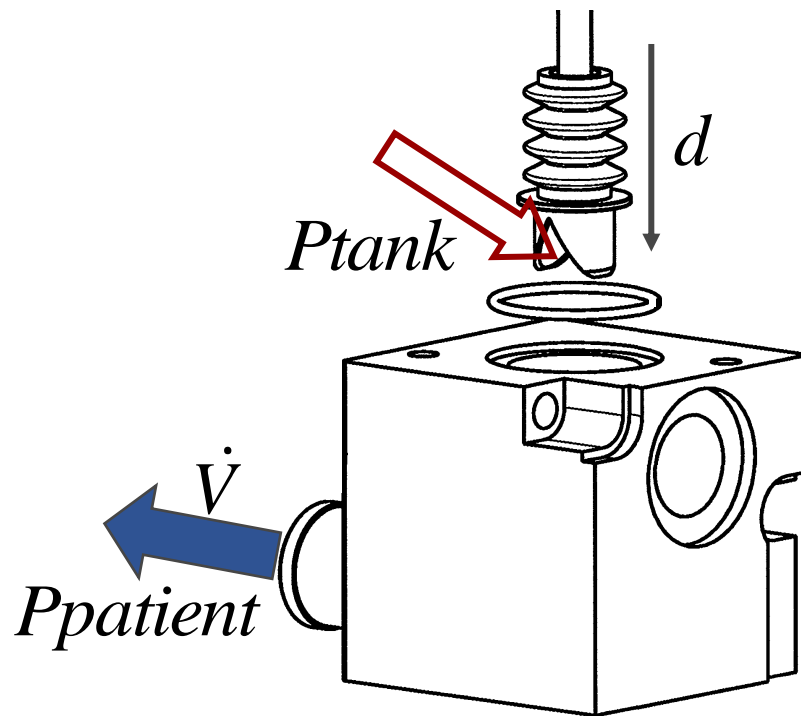
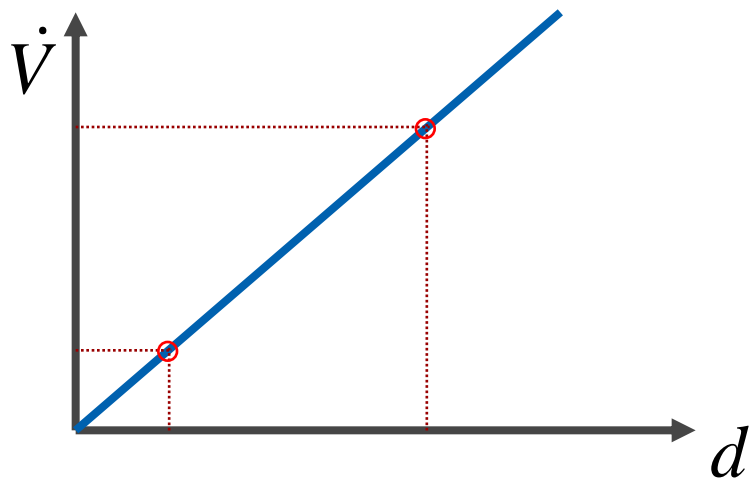


Servo valve



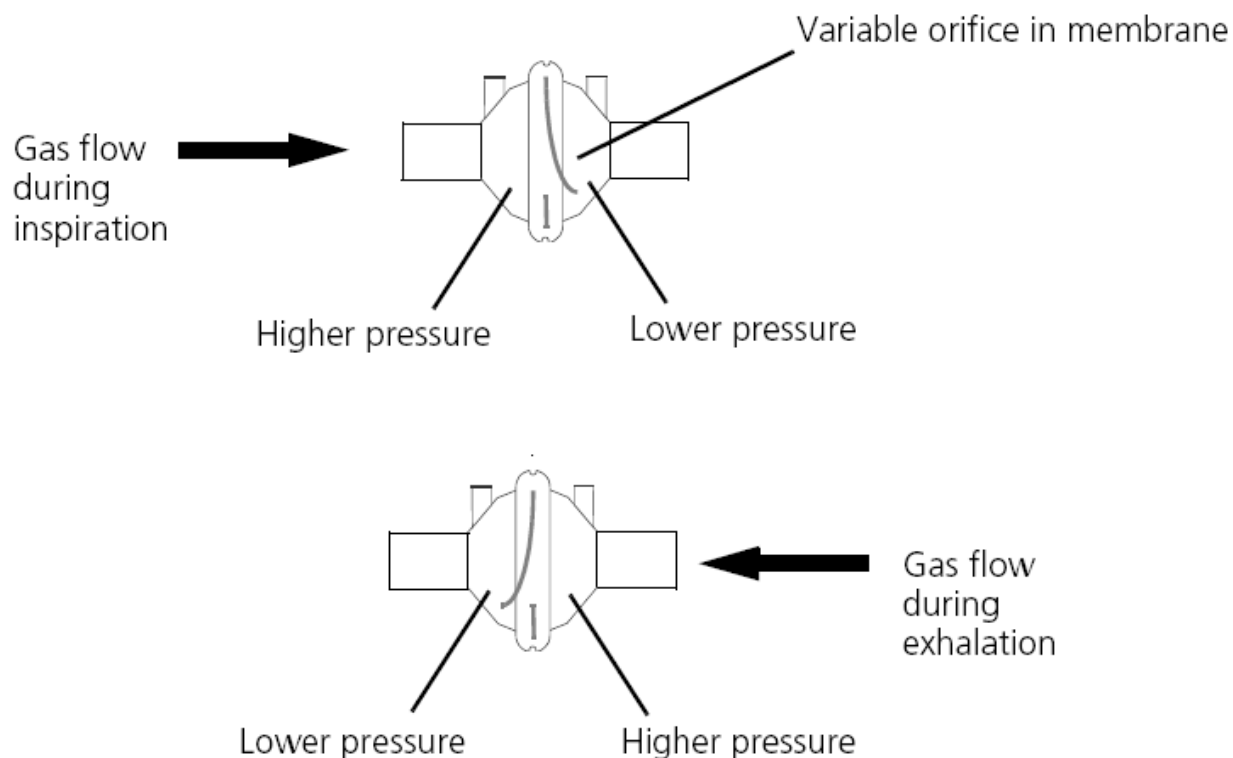
Flow characteristic of the servo valve

- A linear movement of the servo plunger generates a defined flow.
- This geometrical form defined by a mathematical relation guarantees the proportionality between plunger movement d and gas flow.



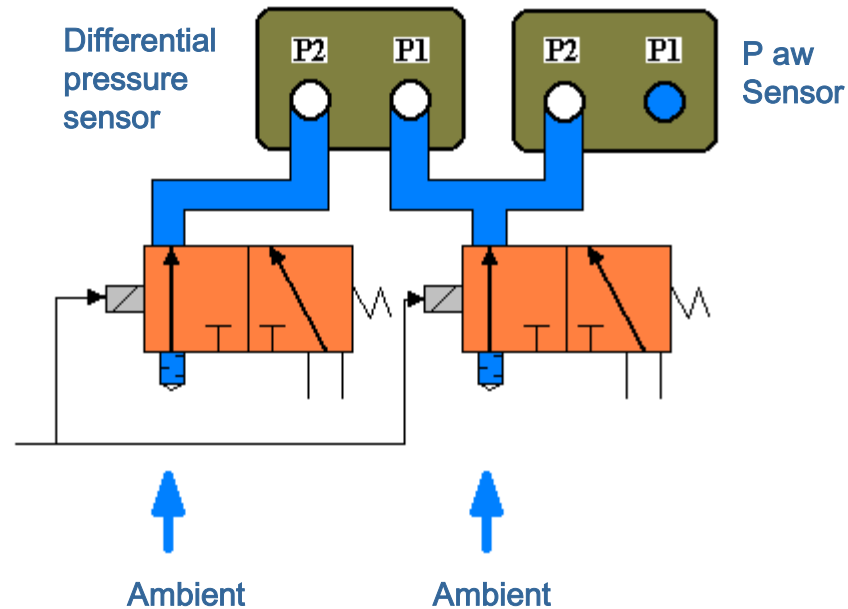
Proximal Flow Sensor

- Proximal (close to the patient) Flow Sensor
- Simultaneous and continuous measurement of flow and pressure



Autozero procedure

- This procedure starts after switching on the ventilator and is repeated every 2 minutes with pediatric and every 10 minutes with adult patients.



Questions?



End