# Application of Rotary Sensors in Anesthesia Machines

The anesthesia gas machine is a device which delivers a precisely-known but variable gas mixture, including anesthetizing and life-sustaining gases. The anesthesia gas machine is also called the anesthesia workstation, or anesthesia delivery system.

Working Principle :

Although anesthesia machines can include several functions, the main function will always be to provide a controlled supply of oxygen and other anesthetic gases to the patient during surgery. The basic anesthetic delivery system consists of a source of oxygen (O2), an O2 flowmeter, a precision vaporizer, which produces a vapour from a volatile liquid anesthetic, a patient breathing circuit (tubing, connectors and valves), and a scavenging device that removes any excess anesthetic gases. During delivery of gas anesthesia to the patient, O2 flows through the vaporizer and picks up the anesthetic vapours. The O2-anesthetic mix then flows through the breathing circuit and into the patient's lungs, usually by spontaneous ventilation (respiration). Occasionally, it is necessary to use assisted ventilation, especially when opening the chest (thoracic) cavity. Assisted ventilation is accomplished by use of a ventilator or respirator. The pressure sensor measure air and oxygen pressure to and from the patient so the pressure doesn't exceed a desired level. The temperature sensor of the air delivery system is often monitored and controlled to help ensure that the air stream is maintained at the desired level of warmth. Rotary encoders are used to provide enhanced output accuracy for smooth motor control that reduces noise and vibration in anesthesia machine motor assembly fan systems.
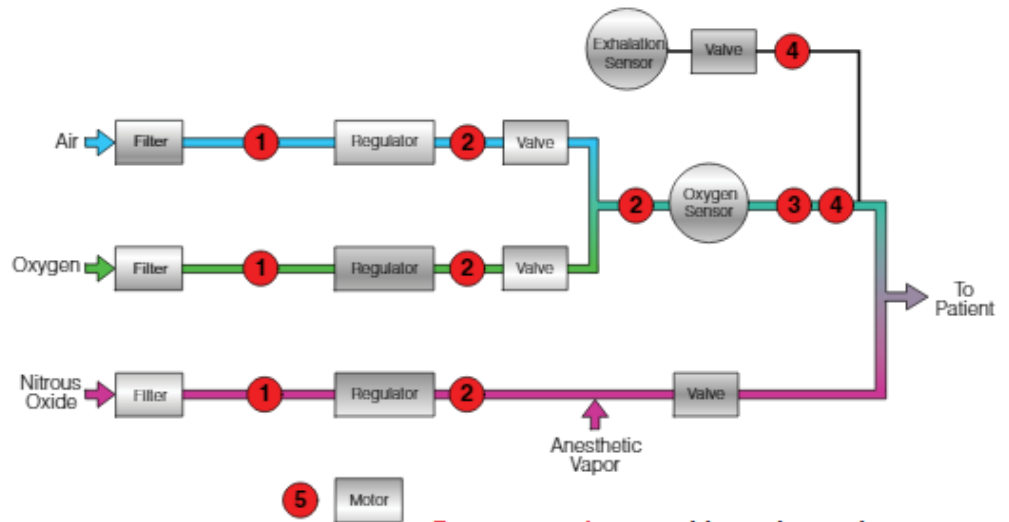
Rotary encoders provides enhanced output accuracy for smooth motor control that reduces noise and vibration in anesthesia machine, motor assembly fan systems.