

Case #01

Disposable Impedance Adapter (DIA) for Ventilator Assessment of Respiratory Function

Assessment of respiratory mechanical function in patients on mechanical ventilators is done using measurement of impedance on ventilator pressure and flow, but when a patient is partially breathing for themselves, accurate respiratory function measurements cannot be determined using these parameters. The DIA solves this problem by providing a controlled oscillatory perturbation of the air delivered to the patient so that impedance measurement can be done at a frequency range above that of the regular ventilation waveform using pressure transducers that are embedded within the DIA. The DIA is integrated into a patient's ventilator be