WE LEARN FROM YOU EVERY DAY –
AND THINK OUTSIDE THE BOX.

When it comes to dealing with liquids and gases, Bürkert has become a sought-after partner all over the world. Why? Probably because we have been learning from and with our customers for more than 70 years now. This enables us to always think that crucial step ahead and around the bend.

We make ideas flow.

For your added value. Let us prove it to you – we look forward to your challenge.
Medical Innovations GmbH – or medin® in short – is a Munich-based medical device manufacturer that develops and sells innovative CPAP systems for newborns and premature infants treated in intensive care units. The latest product development – medinCNT® – works without a compressor thanks to the built-in turbine. Since it only needs to be connected to an oxygen cylinder instead of a central gas supply, this independently-operating, compact device is transport friendly and thus ideal for mobile use. medin® has been working closely with Bürkert for many years. The result of this collaboration provides young patients with the best possible support for a good start in life.

In some cases, the breathing of newborns needs to be supported through intensive medical provisions. If the young patient shows signs of natural spontaneous breathing, the application of CPAP is usually the therapy of choice. This abbreviation stands for Continuous Positive Airway Pressure, which maintains the functional residual capacity of premature and newborn babies without the need for intubation, while ensuring an optimum supply of oxygen and training the relevant muscles. Independently operating mobile systems are becoming increasingly popular in delivery rooms, ambulances and intensive care units. To address and tackle the considerable technical challenges, such as the precise recording and control of required gas volumes, medin® turned to the experts at Bürkert. The result of this joint development project is medinCNT®.

At the heart of these innovative ventilation devices is an electronic gas mixer which, thanks to ultra precise proportional valves, controls the oxygen concentration and the desired flow rate effectively and efficiently. The expert knowledge of the German medical device manufacturer in respiration technologies for intensive care scenarios was used by the engineers at Bürkert to create a compact system solution with a modular control block.

The well-balanced unit, consisting of Bürkert valves, sensors and electronics along with the corresponding software, controls the oxygen concentration and the desired flow rate effectively and efficiently.

– Paul Schmitgen, technical and marketing manager at medin Medical Innovations GmbH

How you benefit from our system competence:

- Increased safety: The gas mixer meets the highest control accuracy demands of respiratory support for premature infants.
- Precise gas control: The oxygen concentration and flow rate are controlled dynamically and extremely accurately.
- Perfect interaction: Well-coordinated components guarantee reliable operation of the gas mixer.
- Modular design: The gas mixer can also be used in other respiratory solutions, for instance in emergency care.

Did you know?
The latest generation of proportional valves from Bürkert works, in contrast to conventional valves, completely frictionless. This guarantees reliable operation of the gas mixer.

More precise than medical standards demand
The latest generation of Bürkert proportional valves offers frictionless operation, combined with fast response times, highly dynamic performance and high repeat accuracy of ± 0.25%. This ensures significantly less deviation from the set value in the gas mixture flow rate than the ∆Q ≤ ± 2% at 20 litres per minute currently demanded by law. The Bürkert solution therefore guarantees ideal therapy solutions delivered in the most efficient way to young patients, making sure their lungs receive the best possible support for a good start in life.