

Positioning of operating tables

Utilisation and cost efficiency are playing a more important role in modern medical operating procedures. This is also true for the operating tables. The latest operating tables offer numerous functions for precise handling of the patient and are also efficient and cost-effective.

The tables are modular in design and provide multiple adjustment options for precise positioning of the patient during an operation. As well as the height of the table, the horizontal position and several angle functions, e.g. for the head, torso and legs, can also be adjusted. Complete patient profiles can be pre-programmed for certain positions or can be created by the user and then called up with a single press of a button. Important personnel and cycle times can be saved using this function.

However, in order to facilitate the precise positioning of the adjustable elements of the operating table, suitable measuring technology is required.

Draw-wire sensors from Micro-Epsilon are ideally suited to this task. With regard to the measuring range, these sensors combine a compact design with high precision and long service life.

In addition, the sensors can be easily integrated to the operating table and provide an excellent price/performance ratio. Draw-wire sensors are usually used for vertical and horizontal table positions. However, the sensors can also be used for (indirect) angle measurements in

certain cases, since angle sensors often cannot be installed on the rotational axes due to restricted space. This means that up to five draw-wire sensors can be used on an operating table.

Requirements for the measuring system:

- Measuring range up to 750 mm
- Repeat accuracy up to 0.1 mm
- Resolution up to 0.02 mm

Suitable sensor series:

- ① WPS-150-MK30-P25
- ② WPS-250-MK30-P10
- ③ WPS-500-MK30-P10

Benefits for the customer:

- Long sensor service life
- Very compact design



Horizontal table position and table height



Angle measurement ①