

Safe technology helps saving lives

The new corona virus SARS-CoV-2 has been raging since January 2020, spreading at an unprecedented pace, exhibiting insidious properties and puzzling experts. SCHURTER has taken this fact into account and has ramped up the production of its medical products.



Control panel for a top class modular ventilator (Hamilton-G5)

At the time of writing, the world has significantly more than 12 million confirmed cases of the life-threatening viral disease COVID-19, which attacks the respiratory tract in particular, and the trend is still unbroken. An end is not in sight, further outbreaks are feared.

Around the globe, a national state of emergency has been declared in almost every country and public life has been paralysed. The damage to national economies is running into trillions.

System relevant production facilities

Thanks to decades of expertise in manufacturing as a supplier of medical technology, SCHURTER was able to avert the lockdown of many of its production facilities. Pandemic and system-relevant plants were closed in very few countries.

SCHURTER took advantage of this situation and decided to drastically increase its capacities in favour of the production of components and input systems for medical technology.

Western states poorly prepared

After the epidemics SARS (2002) and MERS (2012), which were also caused by corona viruses, some Asian countries appeared to be well prepared. The West, on the other hand, which had hardly been affected by both previous epidemics, was literally overrun by the new SARS-CoV-2.

Applications

It quickly became evident that the capacities of respirators would most

likely not be sufficient in the event of an unchecked outbreak of the virus. Analysis systems for blood samples are also of vital importance for assessing the crisis situation. These were also not available in sufficient numbers. For many years SCHURTER has been working closely in these areas with the most important and renowned manufacturers of respiratory equipment and blood analysis devices such as Hamilton, Dräger and many others. A massive expansion of production has been pushed ahead at full speed.

Human Machine Interface

Highly complex equipment such as ventilators can only be operated by qualified specialists. A ventilator can be described as a human-machine system. This refers to a system in which a mutual exchange of information between man

and machine takes place. It is therefore a form of communication between man and machine.

This communication takes place via a Human Machine Interface (HMI). A dialogue takes place between the two system partners, which causes an (inter-) action. The interface is therefore essential for the translation and transfer of information between the two coupled systems man and machine.

This HMI must be adapted to the skills, requirements and characteristics of the operators and the tasks to be performed. The following points should primarily be mentioned here: intuitive operability through few, clearly recognizable input options; clear feedback from the interface that an input has been correctly recognized; information presentation in accordance with human receptivity.

SCHURTER has acquired enormous know-how in the field of touchscreens for medical devices and supplies the world's most renowned manufacturers - including the well-known European manufacturers Hamilton and Dräger.

Switches by no means obsolete

Usually not all functions of high-tech medical devices are triggered via touchpanel. Switches are just as important. Similar demands are placed on them: first-class feedback and absolute reliability. For this task, SCHURTER offers a broad portfolio of high quality metal line switches in all conceivable technologies (mechanical, piezoelectric, capacitive) and dimensions. Small diameters, when it has to be particularly compact. Large ones, for example, when working with gloves in the operating theatre.

Safe power supply

Safety in medical devices begins with the power supply. No electrical device in medical technology may endanger patients or nursing staff. This requires appropriate protective measures, which must be taken as soon as the power supply is connected. Device plugs and power entry modules (PEM) with or without line filters must comply with the medical device standard IEC/UL 60601. SCHURTER offers a wide range for this purpose. Medical power entry modules (M5 or M80) usually consist of the following components: an IEC appliance inlet with cord retention protection, a fuse holder

accessible from outside, a power switch and an (optional) mains filter. The mains filter is an important safety element here. It protects the device from external RF interference and also reduces potentially disturbing emissions. PEMs are essential for trouble-free operation ([Datasheet DG 12](#)^[1]).



SCHURTER DG12: IEC C14 appliance inlet with mains filter, TA35 circuit breaker, V-Lock cord retention and optional cover for IP67. Available as Medical Version (M80).

V-Lock cord retention

Blackouts now occur rather rarely in the industrialized world. But a power cut does not always have to come from the energy suppliers. Sometimes just a small mishap is enough. Carelessness may cause you to pull on the wrong cable, or you may step on the wrong cable - which shouldn't be there. In medical technology, you simply can't afford such a thing. This does not only apply to the operating theatre, but also to all life-support and life-monitoring systems. It would be fatal if a device suddenly stopped working. SCHURTER relies on the V-Lock cord retention safety device which has proven itself in professional use ([Landing Page V-Lock](#)^[2]).

Saving lives with know-how

Thanks to many years of experience and in-depth know-how in safe power supply and sophisticated input systems, SCHURTER can contribute to the recovery of seriously affected patients and help save lives in emergency situations such as the current COVID 19 pandemic.

Not only has the production capacity for SCHURTER Medical products ([Medical Equipment](#)^[3]) been increased, they are also treated with the highest priority.

About SCHURTER

The SCHURTER Group is a globally successful Swiss family business. With our components ensuring the clean and safe supply of power, input systems for ease of use and sophisticated overall solutions, we impress our customers with agility and excellent product and service quality.

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References / Document Downloads

[1]: <https://www.schurter.com/datasheet/DG12>

[2]: <https://www.schurter.com/v-lock>

[3]: <https://www.schurter.com/medical>