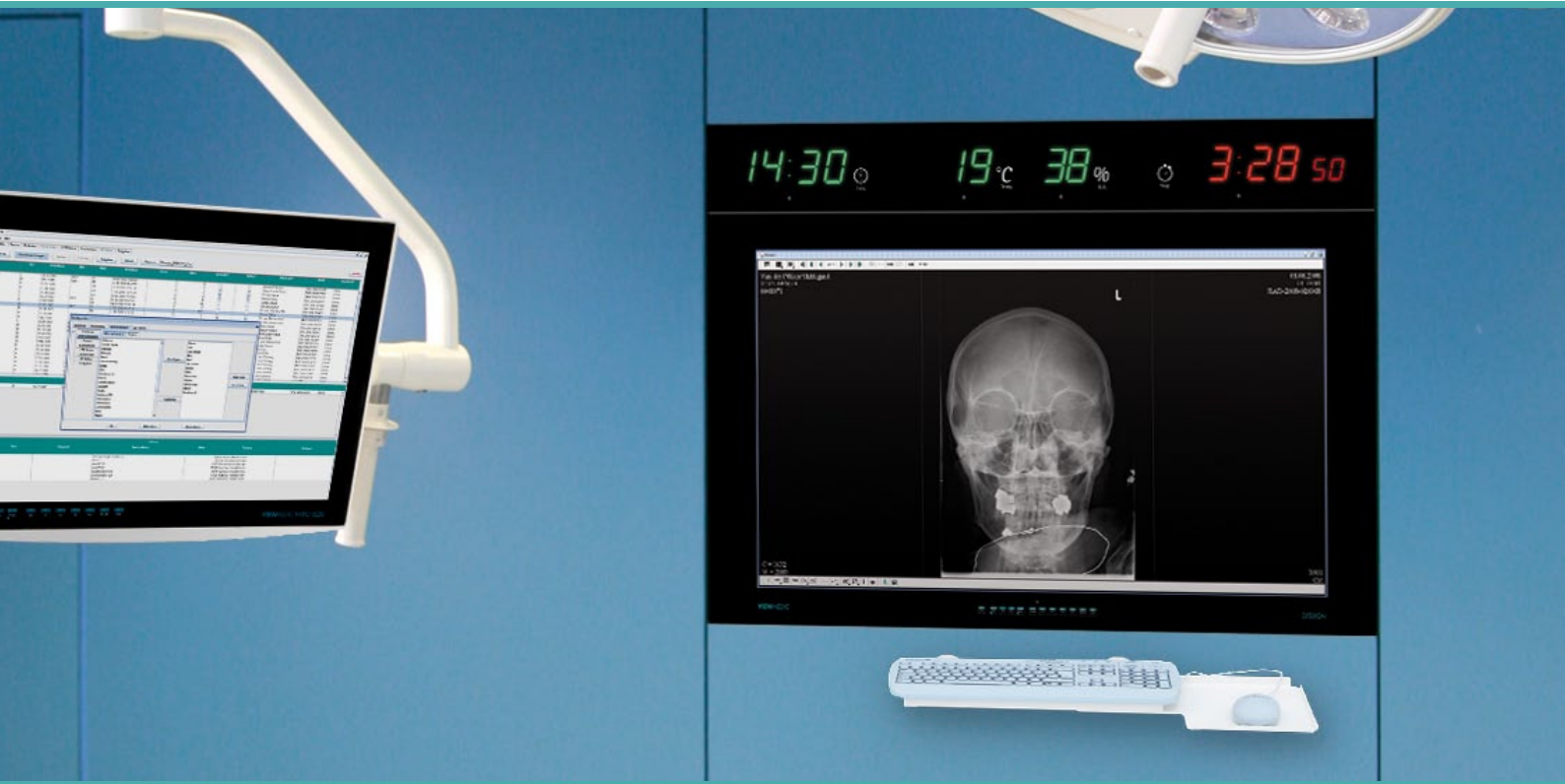


VIEWMEDIC OPERION



- Modular wall monitor for the operating room
- Optional, integrated PC module
- Niche or on-wall mounting
- Medical certification for
OPERION and components

 **rein medical**

We make your eHealth come alive

OPERION – THE CONCEPT

FLEXIBLY ADJUSTABLE

The **VIEWMEDIC OPERION** is a professional monitor designed as a wall module. The system can be supplemented with a **COMPUTER MODULE**, and then becomes a full medical workstation for RIS, HIS, PACS etc.

Only hardware for industrial applications is used for the **OPERION**. Such hardware is superior to conventional PC hardware in terms of longevity and resilience.

In addition, the **OPERION** uses only hardware combinations certified according to IEC 60601-1-2 and IEC 60601-1.

The concept of the **VIEWMEDIC OPERION** fulfils the requirements of a modern operating room perfectly. The **OPERION** can be adjusted to any environment, as it offers freedom of design and has a modular structure.

To keep the costs for hardware upgrades down, IT components must be easily exchangeable.



VIEWMEDIC OPERION BODY

MODULAR STRUCTURE

The separation of the medically certified computer and monitor modules from the **OPERION FRONT PANELLING** is unique. Thus the modular structure offers a high degree of flexibility and can be easily adjusted to new requirements.

The following modules may be selected for the **OPERION**:

» Monitor module

The **MONITOR MODULE** consists of one or two monitors. The monitors are available in different sizes up to 46 inches (↪ [page 8](#)).

» PC module

The additional **PC MODULE** contains the latest IT components and can be configured in different ways. It is easy to upgrade – even after several years (↪ [page 9](#)).

» Input modules

The **INPUT MODULES** consist of a keyboard and mouse or a keyboard with touchpad. Various hygienic input devices are available to choose from (↪ [page 10](#)).



24 inch and 42 inch –
OPERION combination



DOCTRAY MEDIGENIC keyboard
with MEDIGENIC mouse

OPERION – THE DESIGNS

IT DOESN'T MATTER WHETHER YOU REQUIRE NICHE OR ON-WALL MOUNTING: THE OPERION FITS EVERYWHERE

Every operating room is different – and the **VIEWMEDIC OPERION** is geared for this. With its different installation options (FB, BR, BODY and TOWER), it can be individually adjusted to any spatial conditions. These four designs enable limitless individuality:

» Niche design, flush [FB]

If an operating room is being completely redesigned, the flush installation of **OPERION NICHE FB** is the best solution: Here, the device with its all-over glass front is integrated perfectly into the modular operating room wall (↪ page 4).

» Niche design, frame [BR]

With the frame solution, **OPERION NICHE BR** can be fitted into existing drywall of an operating room. The frame protrudes 30 mm from the existing wall and is hygienically sealed (↪ page 5).

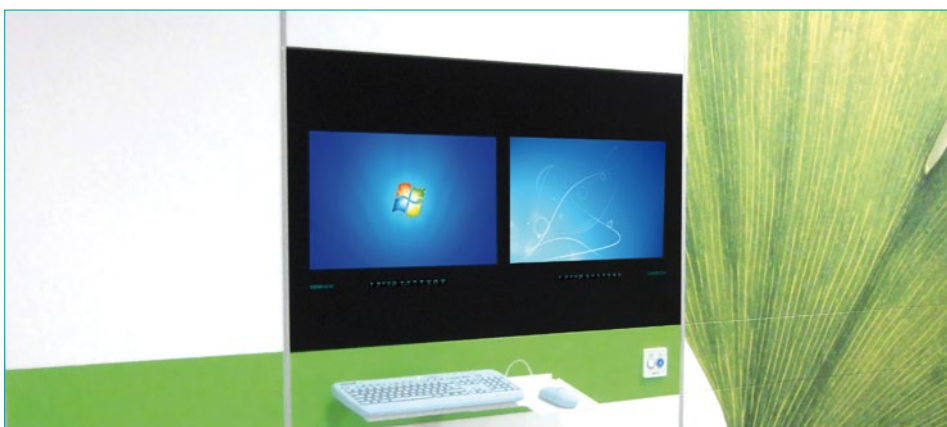
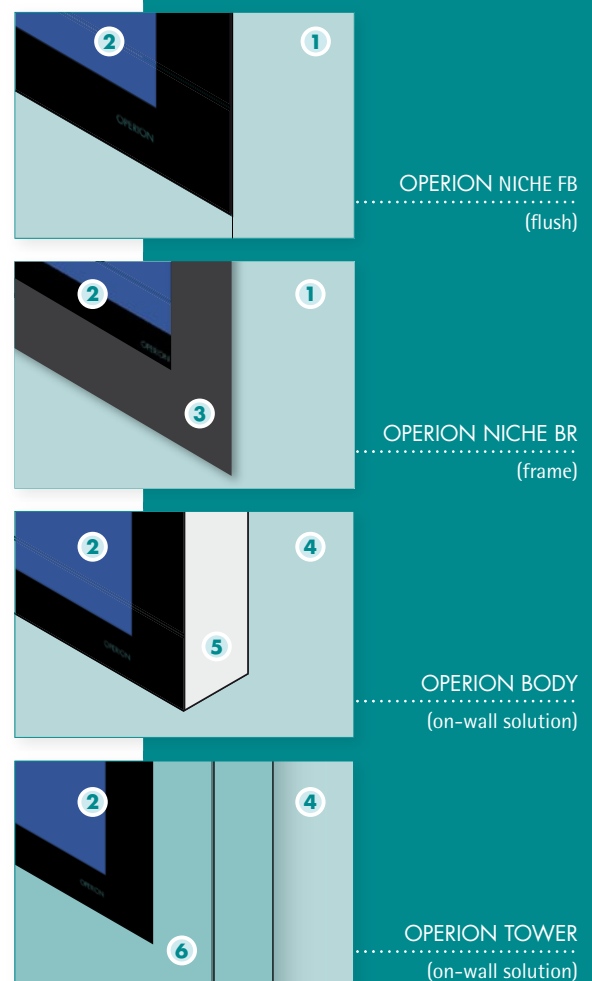
» On-wall installation, BODY

The **OPERION BODY** is an on-wall solution that can be used anywhere: The monitor along with all optional modules (such as PC module) is contained in the closed housing, which is mounted on the wall (↪ page 6).

» On-wall installation, TOWER

The **OPERION TOWER** is similar to the Operion Body in that it is also an on-wall installation. However, the **OPERION TOWER** reaches from the floor to the ceiling. This offers space for additional high-technology components. Thanks to its slim design, the Tower protrudes just a few centimetres into the room (↪ page 6).

Flexibility is gaining increasing importance in the medical IT world. The variety of **OPERION** designs enables perfect integration into every operating room: Installation is fast and cost-effective.



- ① System wall (HT, Lindner, GHK or similar)
- ② Safety glass
- ③ Stainless steel frame
- ④ Operating room wall for on-wall installation
- ⑤ BODY made from powder-coated stainless steel
- ⑥ TOWER installation

OPERION NICHE FB TWIN

NICHE DESIGN, FLUSH

OPERION NICHE FB

The **OPERION NICHE FB** design should be the client's first choice whenever an operating room is being redesigned or is already in the construction phase.

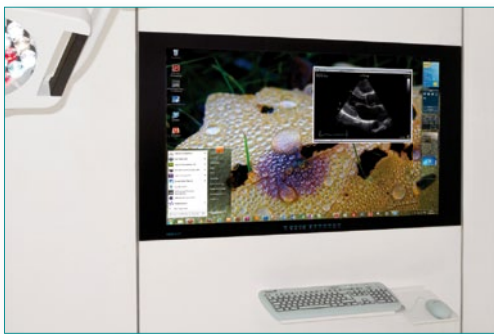
The design of the **OPERION** is governed by the dimensions between axes and the wall widths of the operating room wall manufacturers. We work in partnership with these manufacturers. Therefore, the **OPERION** can be easily integrated into the system walls of the following manufacturers, for instance:

- MAQUET
- HT Labor- + Hospitaltechnik
- etc.
- Lindner Group
- COMESA
- EMV
- GHK DOMO

The **OPERION** module for the FB and BR niche solutions requires a depth of barely more than 10 cm! The result is a monitor or workstation that is integrated perfectly into the modular wall and can be installed extremely quickly.

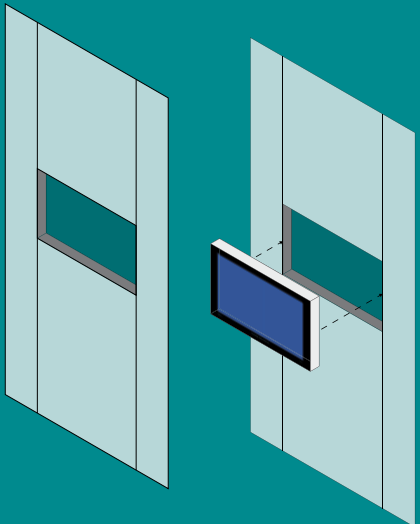


OPERION NICHE FB TWIN



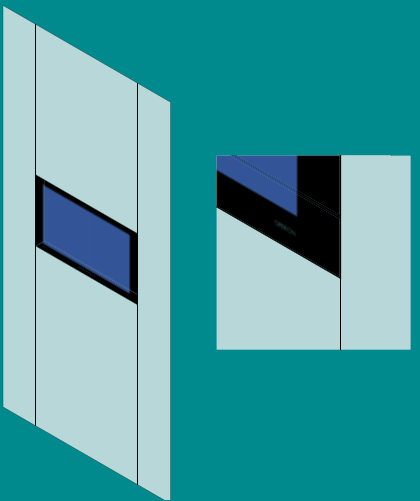
OPERION NICHE FB

The **NICHE FB (FLUSH)** design was developed for hygienic, flush integration into modular operating room walls.



The FB option is ideally suited for operating room system walls.

The dimensions of the **OPERION** are perfectly coordinated with the dimensions of the operating room walls.



OPERION FB is installed extremely quickly and is easy to clean.

The device integrates seamlessly into the operating room wall to give a totally planar, flush surface.

24 inch	42 inch	46 inch	Twin
Niche width: 700–800 mm			
Niche width: 1170–1200 mm			
24-inch solution for HT system wall or similar	42-inch solution for HT system wall or similar	46-inch solution for MAQUET system wall or similar	TWIN solution (2 x 24 inch) for MAQUET system wall or similar

NICHE DESIGN, FRAME

OPERION NICHE BR

Many operating room walls are manufactured using conventional dry construction, for example, as a stud frame. Masonry stone walls are also frequently used. The wall surface materials are diverse and may include tiles, plastic or plaster, for instance.

There are advantages to using OPERION NICHE BR in this environment: The frame of OPERION NICHE BR protrudes a distance of 30 mm from the operating room wall on all sides. The optional all-round seal ensures the necessary hygiene and medical safety.



OPERION NICHE BR

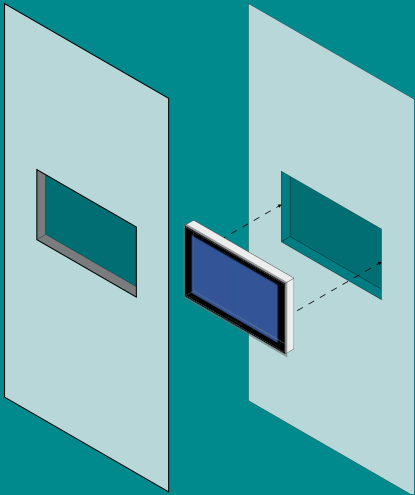
The result is a monitor or complete workstation that is integrated perfectly into the wall opening and can be installed extremely quickly. Different materials are available for the frame, such as polished stainless steel, powder-coated stainless steel or laminated safety glass.



OPERION NICHE BR
Installation in existing Planilux niche

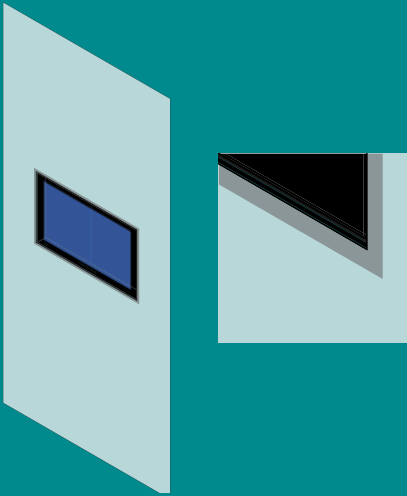
Monitor solution:	24 inch	42 inch	46 inch
	24-inch solution for conventional drywall	42-inch solution for conventional drywall	46-inch solution for conventional drywall

The NICHE BR (FRAME) design was developed for integration into wall niches of conventional drywalls or stone walls.



The BR option is the best solution for a niche in a stud wall or stone wall.

Installation is fast and clean, just as with the FB option.



The result: OPERION BR fits harmoniously into the existing wall.

The frame protrudes a distance of 30 mm from the wall on all sides and can be hygienically sealed.

ON-WALL INSTALLATIONS

OPERION TOWER

The **OPERION TOWER** is placed directly in front of an existing wall and reaches from the floor to the ceiling. It is completely enclosed on all sides; hence, it is just as hygienic as all of the other **OPERION** options. Thanks to its slim design, the **OPERION TOWER** requires a depth of no more than 125 mm and protrudes only slightly into the operating room.

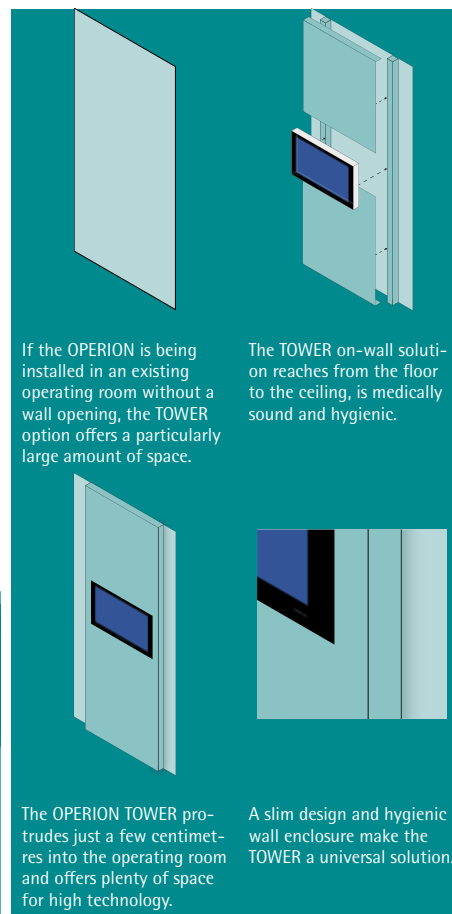
A particular advantage of the **TOWER** solution is the possibility to use the space above and below the **OPERION** for additional technology: A video matrix, router, switches and other PC components, for example, can be easily accommodated here. It is a clean solution that boosts safety and hygiene in the hospital.

Various materials and colour options are available for the front panelling of the **OPERION**. Glass, polished stainless steel, powder-coated stainless steel and **CORIAN®** offer an impressive range of design options and custom designs.



OPERION TOWER 46 inch

The front panelling of the **TOWER** is manufactured from glass, stainless steel or **CORIAN®**.



If the **OPERION** is being installed in an existing operating room without a wall opening, the **TOWER** option offers a particularly large amount of space.

The **TOWER** on-wall solution reaches from the floor to the ceiling, is medically sound and hygienic.

The **OPERION TOWER** protrudes just a few centimetres into the operating room and offers plenty of space for high technology.

A slim design and hygienic wall enclosure make the **TOWER** a universal solution.

OPERION BODY

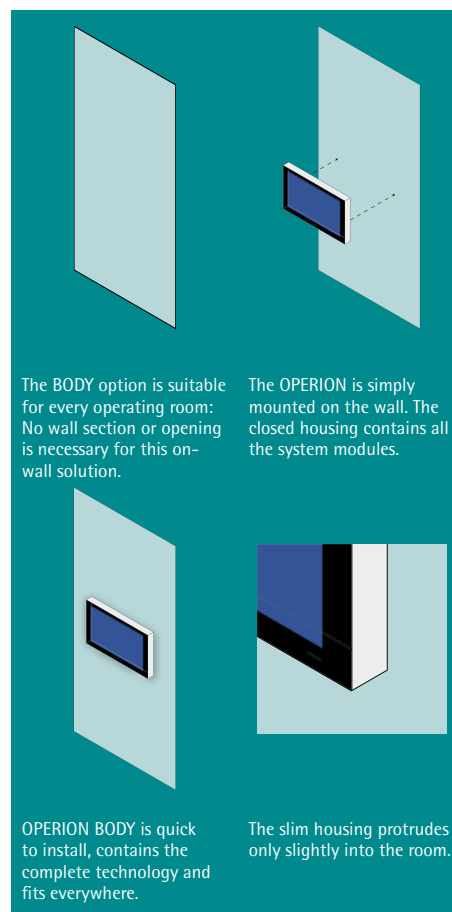
Like an on-wall device, the **OPERION BODY** is mounted directly on the operating room wall. The width and height of the **OPERION** are determined by the necessary display size and your configuration requirements: The system modules, such as monitor, PC module and all other optional extensions, are located in the interior of the **OPERION BODY** and are therefore completely protected. The **OPERION BODY** can be easily integrated into any operating room.



OPERION 124 TWIN BODY

The **BODY** module of the **OPERION** is available in two versions: The small version accommodates the 24-inch option. The larger design with dimensions of 1204 x 717 x 125 mm not only accommodates the 42-inch or 46-inch **OPERION**, but also offers space for a **TWIN** solution with two x 24-inch **OPERION**.

All **OPERION** installations are carried out by Rein Medical. This guarantees seamless integration into the operating room and a medically sound installation.



The **BODY** option is suitable for every operating room: No wall section or opening is necessary for this on-wall solution.

The **OPERION** is simply mounted on the wall. The closed housing contains all the system modules.

OPERION BODY is quick to install, contains the complete technology and fits everywhere.

The slim housing protrudes only slightly into the room.

OPERION – THE MODULE CONCEPT

INSTALLATION METHODS

The OPERION can be fitted into a niche or mounted on a wall.

INFO BAR

Time and stop watch, as well as temperature and humidity display

MONITOR

Available in sizes from 21.5 inch to 46 inch

COMPUTER

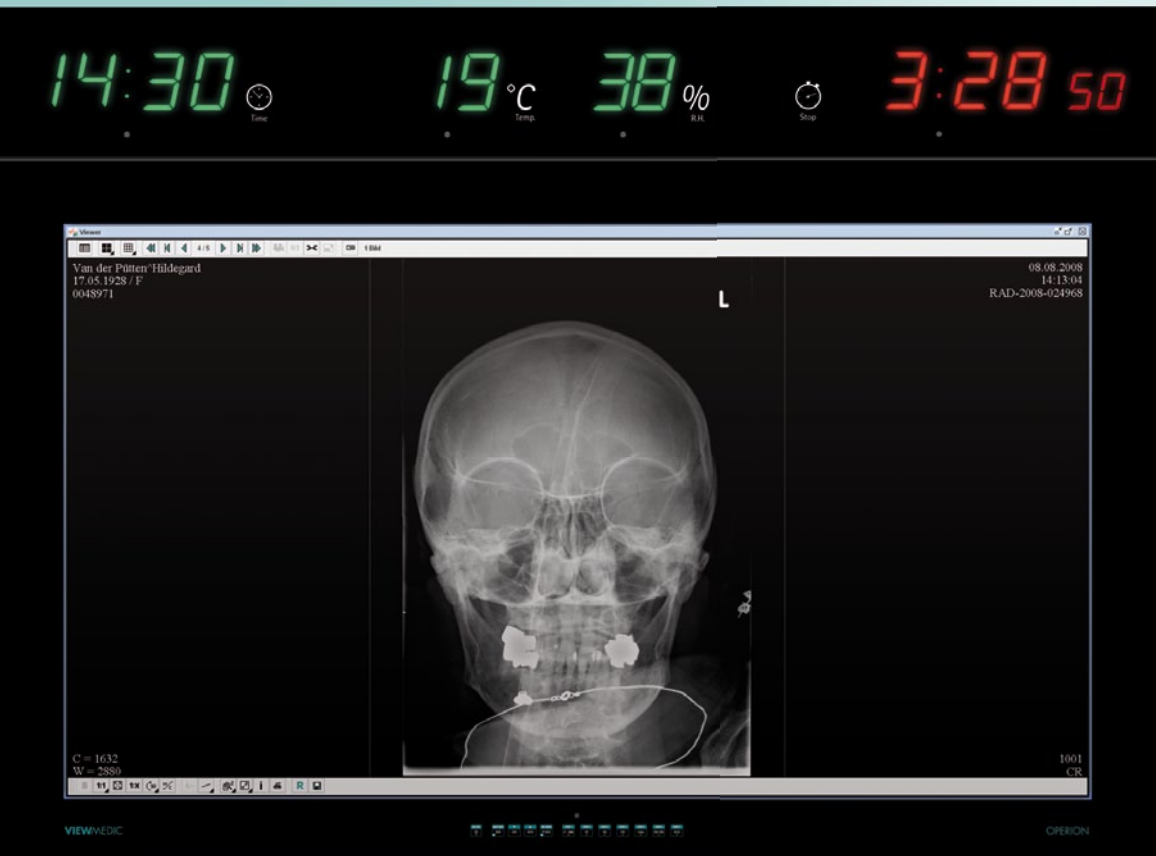
The optional computer module can be equipped with i5 or i7 processors.

COMMAND BAR

Screen profiles can be accessed using the integrated sensor panel.

INPUT MODULE

Keyboard, mouse or touchpad



More information on our **VIEWMEDIC OPERION** concept can be found on our website:



THE MONITOR MODULES

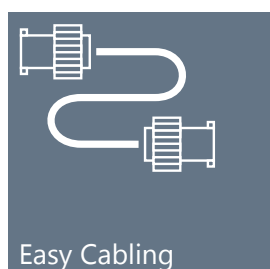
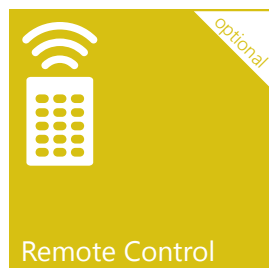
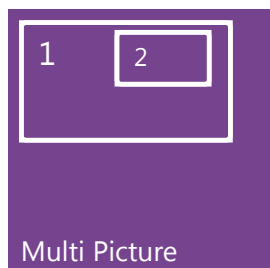
FLEXIBLE AND HYGIENIC

The **MONITOR MODULES** of the **VIEWMEDIC OPERION** can be adjusted to the operating room environment. Configure them as appropriate for your application situation. You can specify the number of monitors, their alignment and size (21.5 inch to 46 inch). The monitors are also available as touchscreen versions (Projective Capacitive Touch or PCT technology).

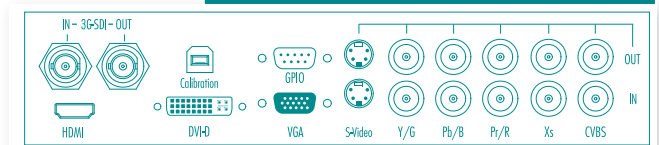
The video controller is available in two versions. The advanced version supports loop-through and professional video interfaces, including 3G/HD-SDI. The video controller is individually determined for each monitor.

The **OPERION** monitors offer the following advantages:

- Industrial panels for 24/7 operation
- Brightness sensor for the 42-inch and 46-inch screens
- Storable user profiles
- DICOM preset
- Hygienic control using the **COMMAND BAR** sensor panel
- IR remote control, or remote control via RS232/GPIO
- Simple cabling
- Picture-in-picture display



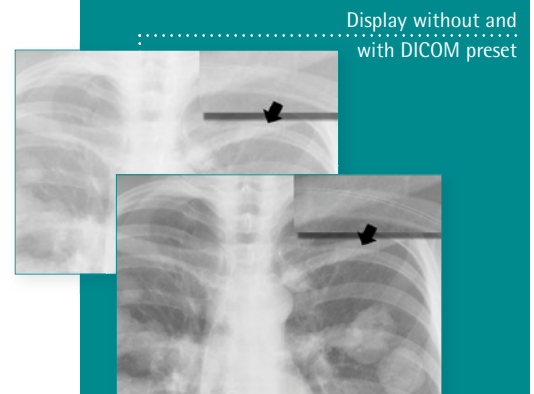
The **MONITOR MODULES** of the **VIEWMEDIC OPERION** can be adjusted to the environment. The number of monitors, and their size and position are variable.



Advanced video controller with loop through and 3G-SDI



The **COMMAND BAR**



Display without and with DICOM preset



Remote control

More information on the technical details of the **OPERION** monitors can be found in the brochure:

OPERION MONITOR MODULES

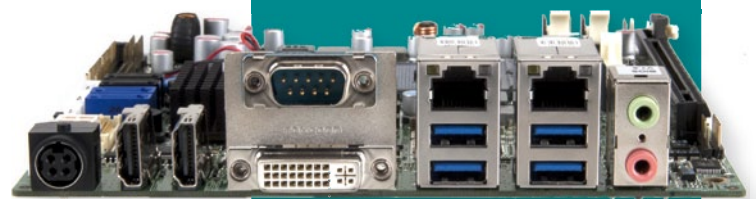


THE PC MODULES

MODERN ARCHITECTURE FOR A POWERFUL PERFORMANCE

The **PC MODULES** of the **VIEWMEDIC OPERION** focus on performance and safety: The basis is a high-performance industrial mainboard with the latest Intel® architecture.

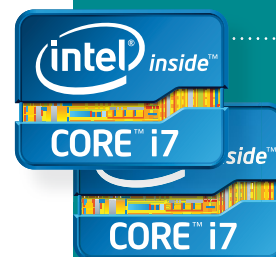
- The mainboard is equipped with Intel Core™ i5™ or i7™ processors. Up to 16 GB of RAM is possible. This guarantees enough memory and computing power for all applications.
- The interfaces are selected in such a way that no bottlenecks occur: LAN 10/100/1000, USB 3.0, USB 2.0, RS-232, HDMI, PCIe 16x slot
- The optional 3D graphics card enables graphics-intensive applications to be displayed more fluidly.
- If a **DOCTRAY MEDIGENIC** or **TOUCH** is used as an input module, it can be fitted with a DVD drive.
- The interfaces of the PC module can be electrically isolated. This guarantees overvoltage protection of up to 4 kV.



Interfaces of the mainboard



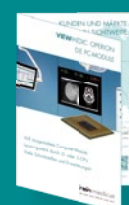
Optional 3D graphics card (example illustration)



A choice of Intel Core™ i5™ or i7™ CPU

More information on the technical details of the PC components can be found in the brochure:

OPERION PC MODULES



OPERATION MODULE

HYGIENIC INPUT DEVICES

Keyboards and mice are generally used by a number of different people. As 100 per cent hand hygiene can never be achieved, there is a risk of cross contamination between patients and staff – with fatal consequences.

When implemented as a fixed system component across your operation, **MEDIGENIC** input devices help to minimise infection risks. These input devices are ergonomic and are attached to the front of the housing.

DOCTRAY MEDIGENIC KEYBOARD AND MOUSE

The DOCTRAY MEDIGENIC keyboard consists of a hygiene keyboard, a mouse tray, USB ports and an optional DVD multi drive.

The **DOCTRAY MEDIGENIC** hygiene keyboard impresses with its hygienic properties and the comfortable ergonomics of a typical keyboard. It allows fast and easy wipe-down disinfection.

- A DVD multi drive can be retrofitted beneath the hygiene keyboard. It reads and writes to all common CD and DVD formats.

- The **DOCTRAY MEDIGENIC** hygiene keyboard is available in two versions and several language layouts. The **MEDIGENIC COMPLIANCE** hygiene keyboard reminds the user at adjustable intervals when a disinfection is required. The **MEDIGENIC ESSENTIAL** has the same comfortable ergonomics and hygienic properties, but has no alarm system.

- The hygienic **MEDIGENIC** mouse has three buttons and a scroll function. It is easy to disinfect and feels comfortable in the hand.

DOCTRAY TOUCH

The **DOCTRAY TOUCH** is particularly compact and robust, and consists of a keyboard and a touchpad on the right-hand side. It can also be operated with surgical gloves.

Similarly, the **DOCTRAY TOUCH** keyboard can be fitted with a DVD multi drive.

The hygienic input devices from **VIEWMEDIC** significantly reduce the risk of bacterial transmission.

DOCTRAY MEDIGENIC keyboard and mouse



DOCTRAY MEDIGENIC mouse



DOCTRAY TOUCH keyboard



More information on the **MEDIGENIC** and **TOUCH** operating controls can be found in the brochure:

VIEWMEDIC MEDIGENIC



EXTENSIONS

CAT EXTENDER

A CAT EXTENDER enables you to transfer image and video signals via a conventional Ethernet cable (CAT.5) with RJ45 connectors over distances of up to 100 m – and this is possible with DVI quality at 60 images per second. In addition, cost-effective electrical signal isolation is possible. This offers overvoltage protection of up to 4 kV.

The CAT extender can be retrofitted in any **VIEWMEDIC OPERION** with an installed **PC MODULE**. If a **VIEWMEDIC OPERION** is used as a signal source, receiving devices such as monitors, recording devices, and so on merely require a CAT receiver. CAT receivers can be easily retrofitted in existing systems.

FLUSH-MOUNTED BOXES

Flexibility and extension possibilities also exist outside the **VIEWMEDIC OPERION**: To enable you to connect external devices, such as monitors and USB sticks, we offer standardised and labelled **flush-mounted boxes**.

The **flush-mounted boxes** can be configured to your specifications. The control switches for the **OPERION INFO BAR** can also be designed in this way. Further examples of flush-mounted boxes are:

- System On/Off
- PC On/Off
- HD-SDI/3G
- DVI/HDMI
- VGA
- CVBS
- S-Video
- USB

The optional modules, such as CAT extender, INFO BAR or the flush-mounted boxes, are impressive extensions to the **VIEWMEDIC OPERION** scope of functions.

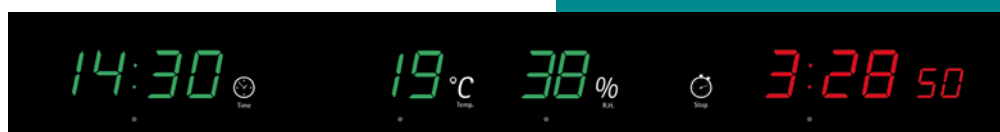


Flush-mounted boxes

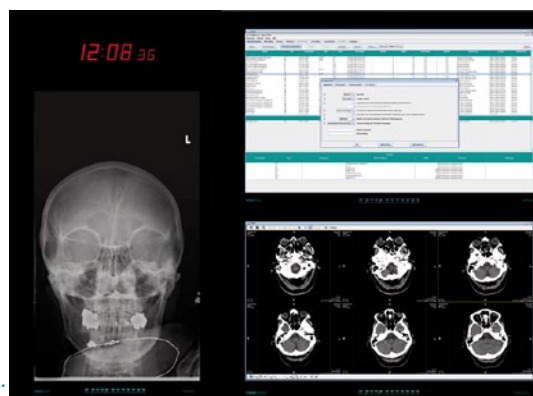
INFO BAR

The **INFO BAR** can be integrated into any **VIEWMEDIC OPERION**. It offers time, room temperature and relative humidity displays, as well as a stop watch.

The professional LED display offers top contrast properties and holds at least 100,000 hours.



INFO BAR extension module



OPERION NICHE FB TRIPLE
with INFO BAR

Full information on the **VIEWMEDIC INFO BAR** can be found in the brochure:

OPERION INFO BAR



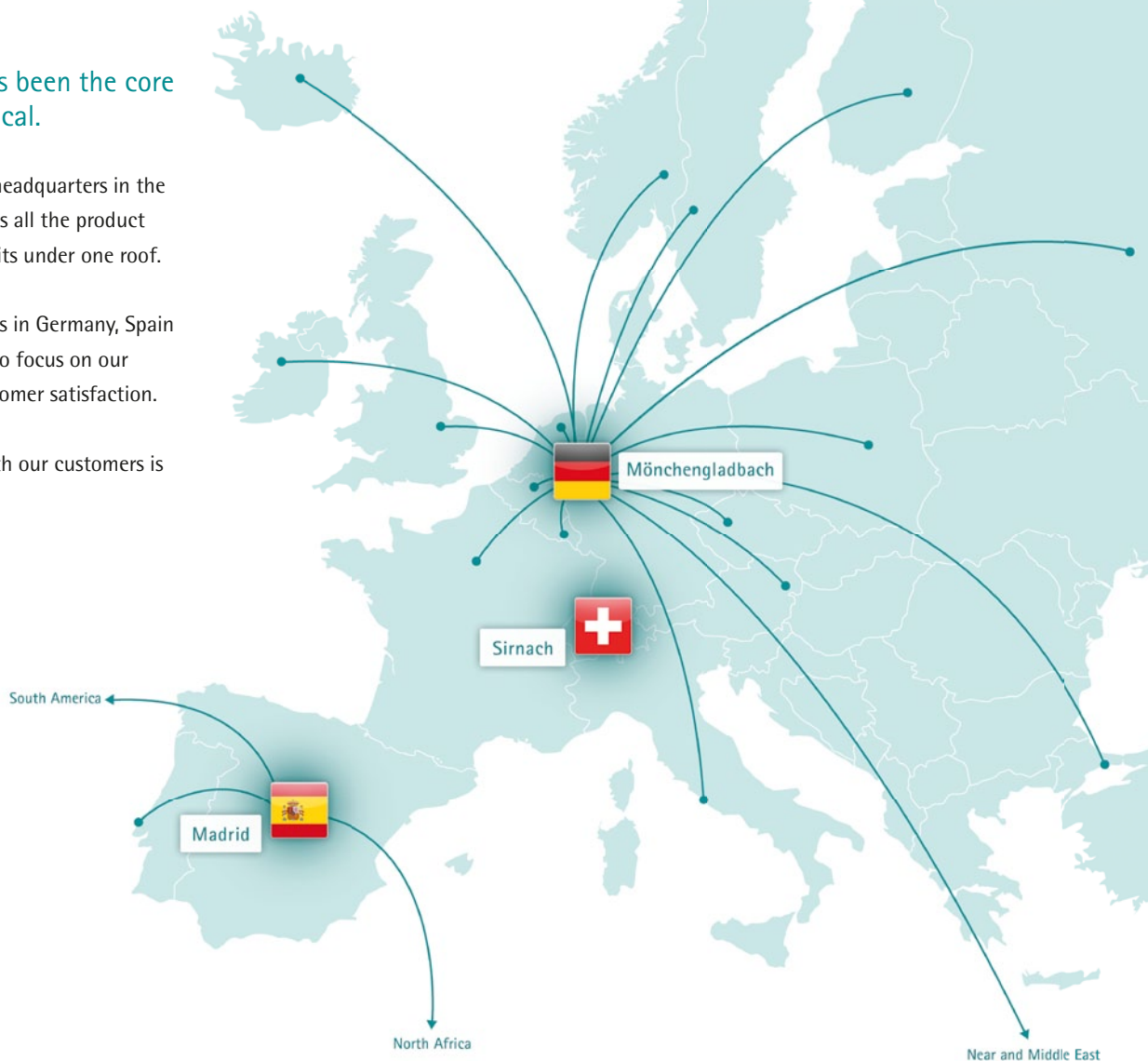
ALWAYS ON OUR MIND CUSTOMER AND MARKETS

» Europe has always been the core market of Rein Medical.

The family business, with headquarters in the west of Germany, combines all the product strategy organisational units under one roof.

Our sales and service teams in Germany, Spain and Switzerland allow us to focus on our customers and ensure customer satisfaction.

Long term cooperation with our customers is our top priority.



rein medical

We make your eHealth come alive

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