INFIMED

Operating room control system

OPERA IS-01

ON WALL CLOCK

BLINDS

OR STATUS

OR DOORS

AIR CONDITIONING / TEMPERATURE / LIGHT / HUMIDITY

VIDEO RECORDER

MAIN SCREEN

1

2

CLOCK

STOPWATCH

LOCK

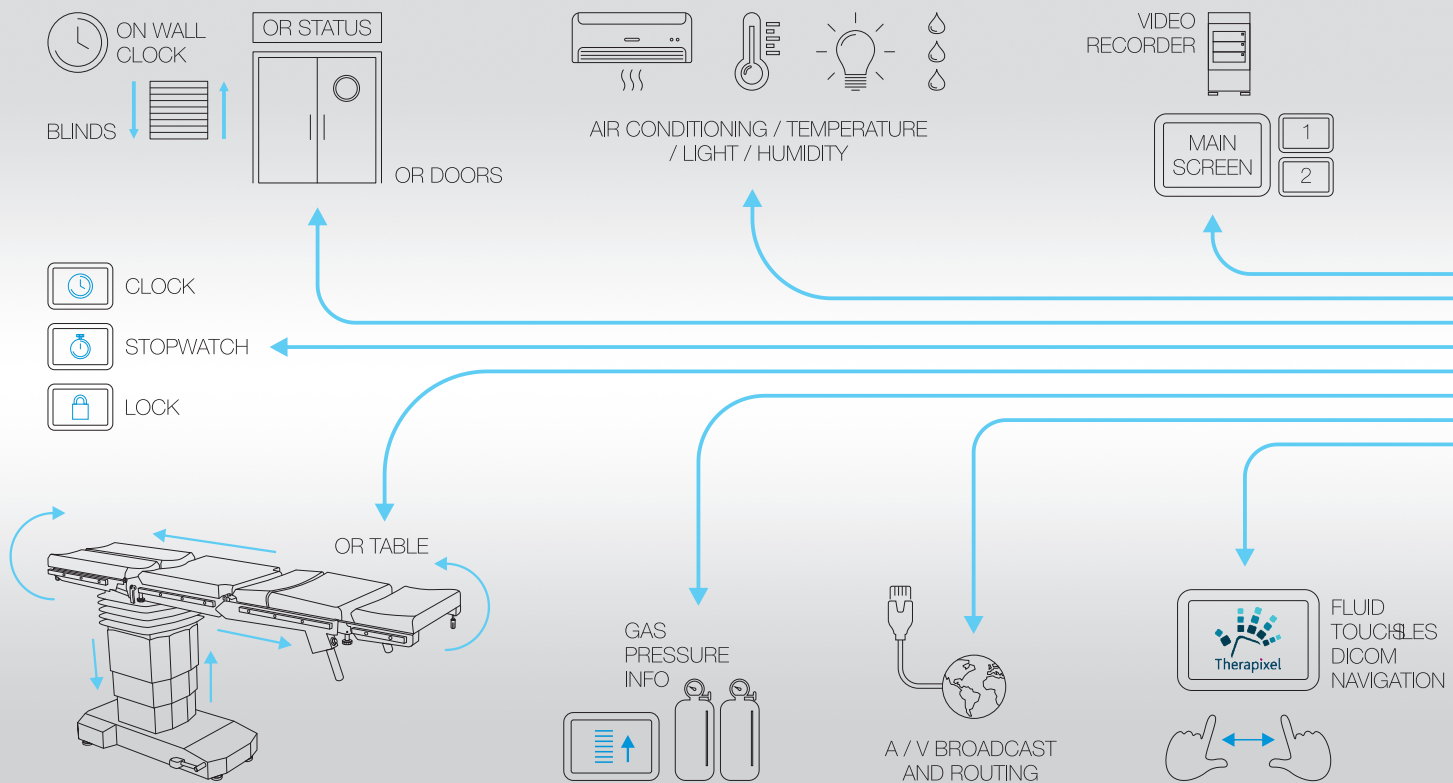OR TABLE

GAS PRESSURE INFO

A / V BROADCAST AND ROUTING

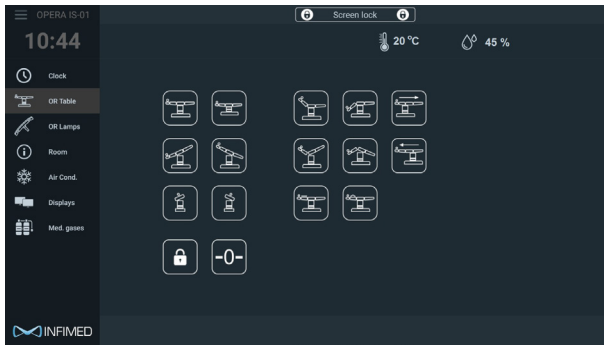FLUID TOUCHLES DICOM NAVIGATION

Therapixel

Infimed Opera main features

- Certified Class I medical device,
- Very easy to clean and maintain infection-free, integrated touch glass ensures flat surface with the panel, very high rated touch panel - IP65 (dust tight and water proof),
- Comes integrated with the OR wall panel or separate standalone mounted panel,
- Also available as a wireless handheld mobile device - IP67 certification for water and dust ingress, the ability to with stand extremely high temperatures, and drop tested to 1.2 meters according to MIL STD 810G standard,
- Long battery life, non-slip coating exterior, ensuring firm grip, even in rough working conditions, wall mounted docking station with fast charging option,
- Meeting client's individual needs and expectations by customizing the setup to existing installation or the additional requirements,
- Large clock on main tab and stopwatch/timer option in the software (external on-wall digital clock available which can be connected to the system, has synchronization option - with the NTP server or using external GPS antenna),
- BMS integration feature,
- Displaying of OR environment status – actual temperature and humidity, fault and warnings,
- Medical Gas status display and alarm option (external Alarm speaker/buzzer available with mute feature).

IS-01

- Ability to control :
  - Operating tables (*Infimed's OTs – all parameters synchronized),
  - Operating lights (*Infimed's OLs – all parameters synchronized),
  - General lights (standard and DALI interface – dimming feature),
  - Air conditioning [analog 0-10V domain (*4-20mA as an option) and digital domain (MODBUS) available],
  - Cameras control – the ones in OLs plus room cameras,
  - Audio-Video routing,
  - Audio-Video streamers, recorders,
  - Blinds,
  - External Illuminated Information/Warning Signs,
- All parameters synchronized through the available devices,
- At least 21,5" touch screen panel, powerful, energy efficient hardware, fast Solid State Drive storage,
- Easy software upgrade feature,
- OperaIO class I medical inputs/outputs module designed from scratch for medical applications,
- 48 digital inputs and 48 digital outputs per single OperaIO base module (96 digital inputs and 96 outputs with Opera IO extender), 16 12-bits analog inputs and 2 12-bits analog outputs, 6 serial ports (RS-232 and RS-485), MODBUS RTU Slave protocol (MODBUS RTU Master optional),
- Safe, low latency IP based communication protocol with error checking,
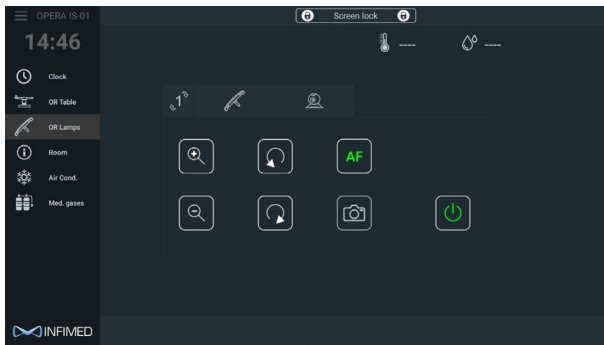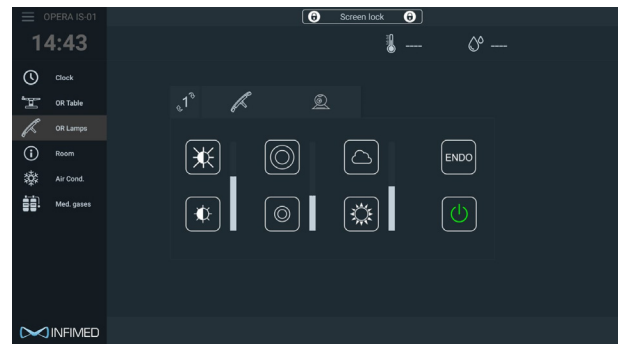- Standard depth of the back of the panel – maximum 120mm.

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OPERA
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OR Table

Controls the parameters of the operating table such as height adjustment, table top tilts, back rest angle, longitudinal slide, kidney bridge angle etc. Number of functions depends on the version of the OR table.

OR light

controls the parameters of the operating light, such as brightness, field size and color temperature. Indication of power source and any possible errors related to the OR light are displayed here as well.
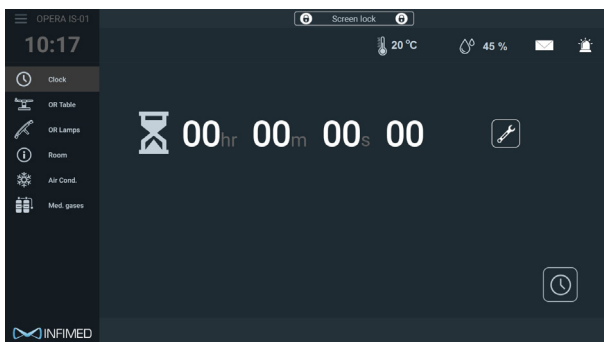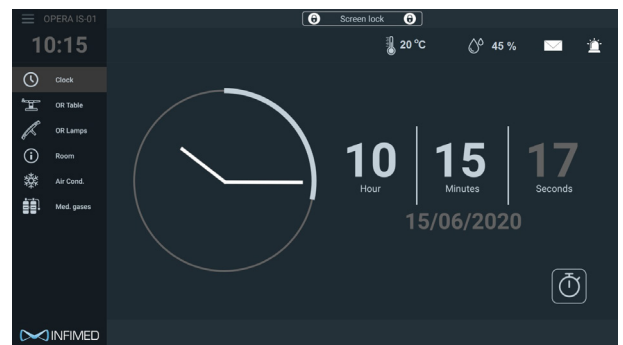

OR light camera

controls the camera located in the OR light handle – options are the same as on the lamp's control panel, that includes zoom in/out, camera rotation, auto-focus, freeze frame option etc. The camera can be shut down completely using the power button.
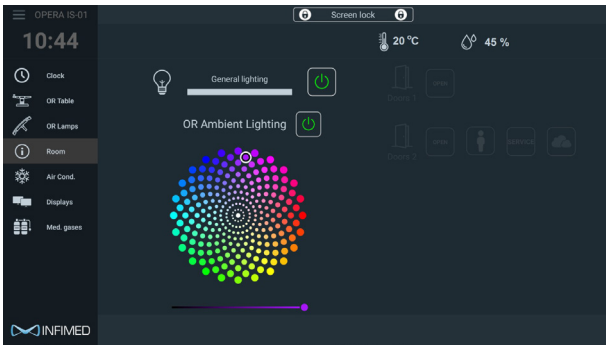
Clock

shows actual time and date. The wall clock and other Opera systems can be synchronized with the master clock or time server.

Stopwatch

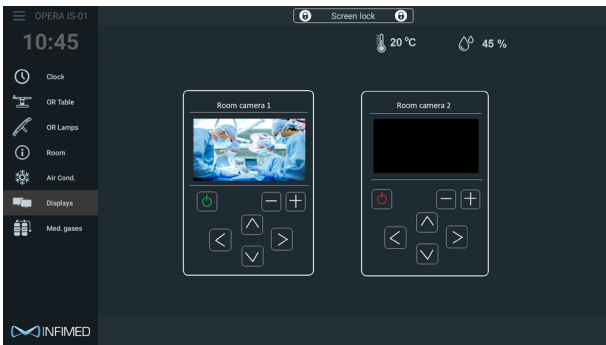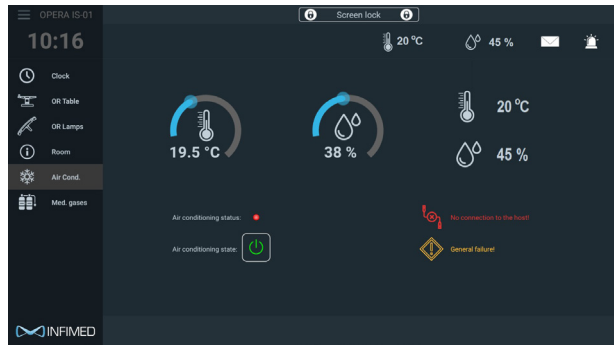measures the amount of time elapsed from a particular time when activated.

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Lighting tab

provides control over the installed light sources in the Operating Theatre: power on /off, dimming. Lights can be assigned to different groups with the DALI interface. Settings depend on the project configuration.

Air conditioning tab

shows temperature and humidity readings, user is allowed to set desired temperature, humidity and flow speed (depends on configuration). Any system errors like dirty HEPA filter are displayed in the corner.
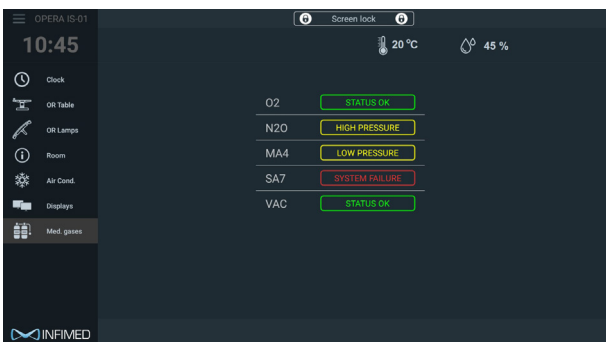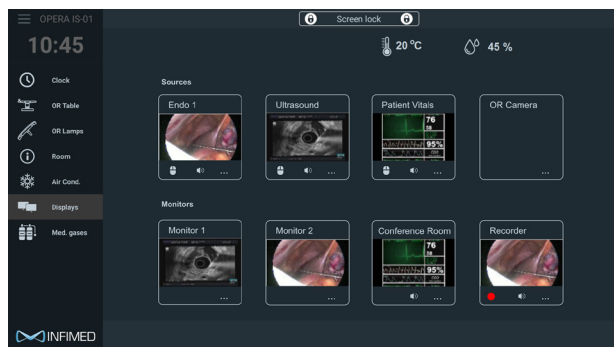
Cameras

controls room cameras. Usually PTZ room cameras are located on a wall or ceiling, it is possible to turn on/off the camera, control the pan, tilt and zoom.

Displays tab

the available video sources are listed on the top with updated live thumbnails. On the bottom, the available video outputs are listed. User is able to pick any source and route it to any output destination. The count of input sources, output destinations, live thumbnails in application and streaming capabilities are defined by system configuration.

Gas tab

duplicates the information gathered from medical gases system and shows it on a screen. Possible states are: status ok, high pressure, low pressure, system fault. Additionally from this tab, user can control AGSS system and check it's status.

Technical parameters	OPERA panel
International Protection Rating	IP65
Power Source	100 - 240V 50/60Hz
Power Consumption	Typically +/-40W, Max. 90W (depending on configuration)
Processor	Intel N3160/N3710/J3160/i3-5010U/ i5-5250U/i7-6770HQ or ARM Cortex 17
LCD size	minimum 21,5"
Resolution	1920x1080 @ 60Hz
Visible Screen Size	476.6 x 268.1 mm
Screen Format	16:9
Brightness	1000 nits
Contrast Ratio	1000:1
Colors	16.7 Million
Response	5 ms
Touch layer	Capacitive
Storage	Solid State Drive
User ports	Hermetic front USB port
Operating temperature	10°C ~ 40°C
Operating humidity	10% to 95% (non-condensing)
Storage temperature	-20°C ~ 60°C
Technical parameters	OPERA mobile device
International Protection Rating	IP67
Anti-shock / high temperature resistance	1.2 m (MIL STD 810G standard) / yes
Power Source	100 - 240V 50/60Hz
Power Consumption	Max. 10W
Display	8.0" (203.1mm)
Resolution (Main Display)	1280 x 800 (WXGA)
Screen type	TFT
Color Depth (Main Display)	16 Million
Wireless	802.11 a/b/g/n 2.4+5GHz
Dimension (HxWxD, mm)	213.1 x 126.2 x 9.75
Weight (g)	393
Constant usage time without charging (Hours)	Up to 12
On-wall mounted docking / charging station	Yes (using special charging pins, fast charge feature, not using the micro-USB connectors)

IS-01

Technical parameters	Opera IO module
Power Source	85-264VAC 120-370VDC
Frequency range	47-64Hz
Power Consumption	Max. 15W
International Protection Rating	IP-X4
Digital Inputs	48 digital inputs built-in per single module (96 digital inputs with a single Opera IO extender)
Digital Outputs	48 Relay (volt free) digital outputs built-in per single module (96 digital outputs with a single Opera IO extender)
Analog Inputs	16 built-in 0-10V (4-20mA optional) analog inputs
Analog Inputs resolution	12bits
Analog Outputs	2 built-in 0-10V (4-20mA optional) analog outputs (up to 10 analog outputs config-urable)
Analog Outputs resolution	12bits
Communication protocols	Ethernet / 4xRS-232 / 2xRS-485 / WiFi (optional) / CAN (optional) / USB (optional) / OneWire / I2C / DALI
MODBUS	RTU Slave (RTU Master optional)
DALI interface	DALI master
Operating temperature	10℃ ~ 40℃
Operating humidity	10% to 95% (non-condensing)
Storage temperature	-20℃ ~ 60℃
Type of offered products	Certified Class I Medical Device

* Actual parameters may vary depending on the selected setup or can be better than the ones specified in the above table as the new versions and revisions of the product are constantly developed by the manufacturer.

For special requirement of the customer it is possible to produce the product with changed technical parameters which do not diminish its safety.

The details given in this leaflet are correct at the time of going to press. The Company, however, reserves the right to improve the equipment shown.

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www.infimed.pl

INFIMED is a young team, but with many years of experience in the field of medical equipment.

Our values are responsibility and honesty that determine the stability of the company and trust from customers. Our staff are passionate people whose knowledge and high skills ensure a continuous growth of the company.

We know the market, we listen and understand the needs of our customers, we focus on QUALITY, REASONABLE PRICE and FLEXIBILITY of our products. Our quality is confirmed by certificates ISO 9001 and ISO 13485.

We are sure that cooperation with our team and equipment delivered by us will meet your expectations.