

SHD[®]
I T A L I A
ENGINEERING TECHNOLOGIES EQUIPMENT SUPPLIES

LINDO[®] TCP

DISCOVER OUR LINDO® TOUCHSCREEN CONTROL PANEL



BENEFITS FOR CLINICAL STAFF

Thanks to the control panel the medical team can receive information about the medical gas system, HVAC plant and electrician power supply system.



DESIGN

Attractive and modern solution to make the control panel easy to use but also complement the pleasing appearance of today's high tech operating rooms.



ADVANTAGES & CHARACTERISTICS

- Glass touchscreen
- Installation on different kinds of wall: gypsum board, brick wall and also other types of prefabricated wall cladding
- Interactive display



PERPICACIOUS

The control panel is easy to understand and simple to use thanks also to a modern tablet-like design similar to the smartphones we all use everyday.

The upper level displays include just the information and controls which are pertinent to the clinical users.

Detailed technical information is available in sub-menus for engineering staff should they need it

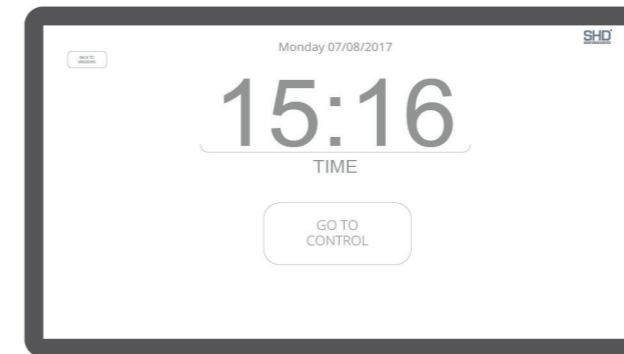


EASY CLEAN

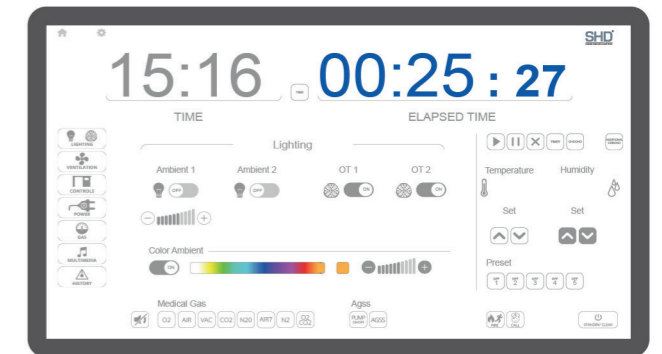
Smooth flat surfaces are easy to wipe down. The screen is protected by a glass and the device is sealed against dust and fluids.

Flexible and user friendly in/out interface.

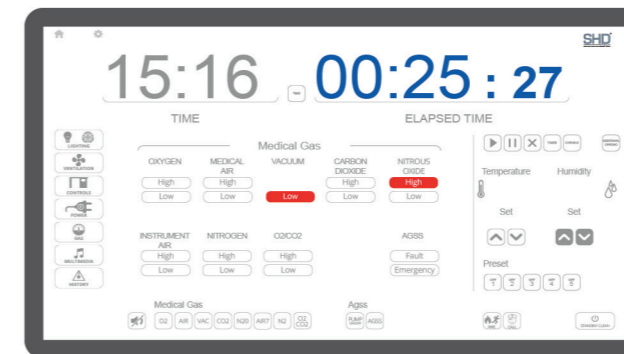
Control Panel is easily suitable to be placed in controlled bacterial contamination operating areas. Moreover the panel can be used with or without surgical gloves.



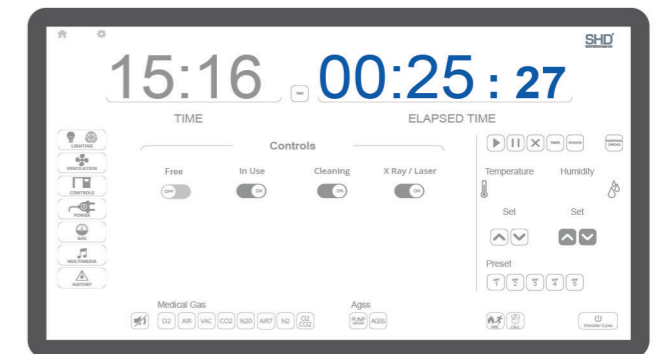
HOME PAGE



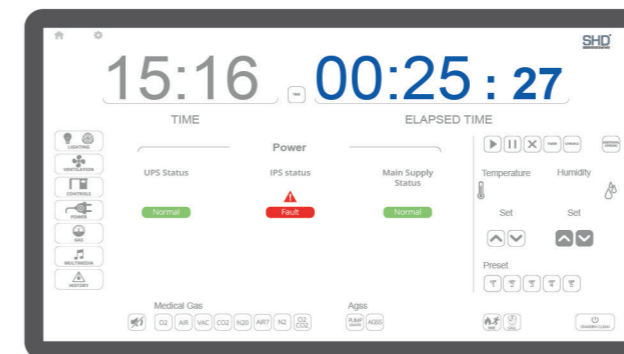
LIGHTING PAGE



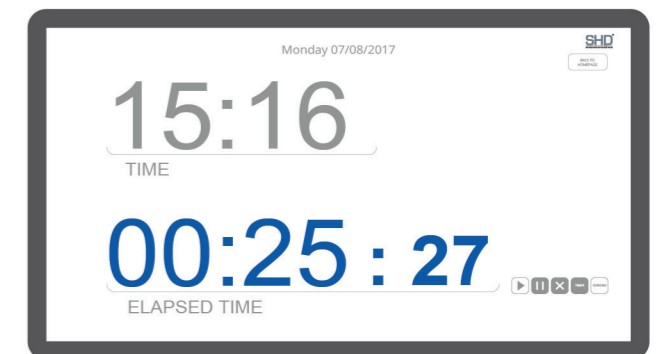
MEDICAL GAS PAGE



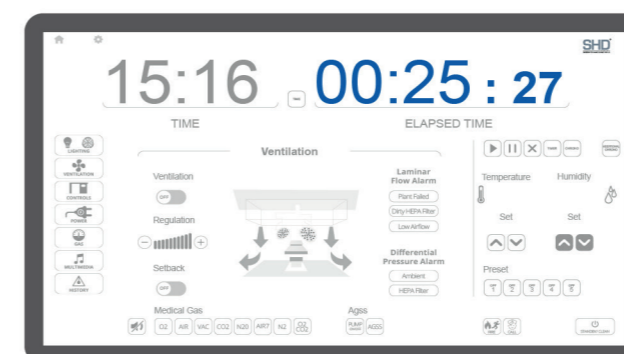
CONTROL PAGE



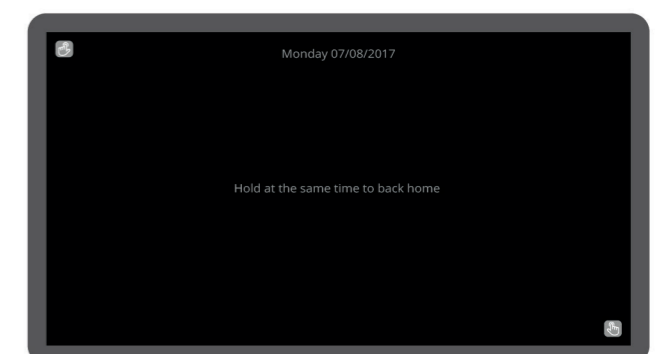
POWER PAGE



TIME PAGE



VENTILATION PAGE



STAND-BY / CLEANING PAGE

LINDO® TOUCHSCREEN CONTROL PANEL FOR OPERATING ROOMS



FUNCTION AND CONTROLS	STANDARD VERSION	OPTIONAL
Control of Operating Lights		
Ambient 1/2 (ON/OFF)	X	
Ambient 1/2 dimming (DALI/DMX)	X	
OT1/OT2 - surgical lamps (ON/OFF)	X	
OT - surgical lamps dimming (verify communication protocol)		X
Colour Ambient RGBW (ON/OFF) and dimming (DALI/DMX)		X
Timing		
Time and calendar	X	
Main timer/chronometer	X	
2x Additional chronometers	X	
Ventilation		
Ventilation (ON/OFF)	X	
Ventilation setback (ON/OFF)	X	
Laminar flow alarms	X	
Temperature and humidity set point (ON/OFF)	X	
Temperature and humidity visualization (0-10V / 4-20mA) (optional sensors)	X	
Differential Temperature and humidity alarm	X	
Differential atmospheric pressure alarm (0-10V (optional sensors)	X	
Differential HEPA filter pressure alarm (0-10V) (optional sensors)	X	
Integration control BMS with protocol to be define with plan supplier		X
Gas		
2 level gas alarm (low/high pressure) (ON/OFF) (optional sensors)	X	
Pressure measurement of gas (0-10V) (optional sensors)		X
Agss pump start/alarm/fault (ON/OFF)	X	
Power		
USP/IPS/MAIN alarm (ON/OFF)	X	
Controls		
Free/in use/cleaning/xray signalling (on/off)	X	
Shutters	X	
Doors	X	
Digital glass	X	
Memory presets		
Lighting and ventilation presets	X	
Communication		
Communication protocols MODBUSTCP and PROFINET	X	
Standalone configuration (see page 6)	X	
Intranet and cloud configuration (see page 6)		X
Software client for intranet/cloud		X
Multimedia control for music		X
Ups predisposition (optional UPS) *	X	
Remote manual control for lighting (optional CONTROL) *	X	

CONNECTION



STANDALONE (standard option)

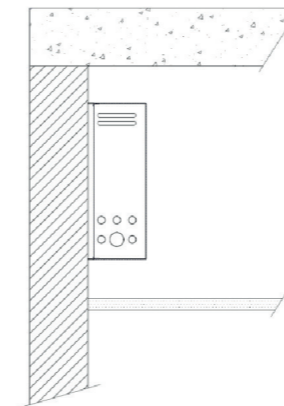


Accessible from any PC, laptop, tablet or smartphone without having to download any applications. Compatible with most popular browsers gives you access and functionality INSIDE THE HOSPITAL NETWORK, with the possibility of data backup.

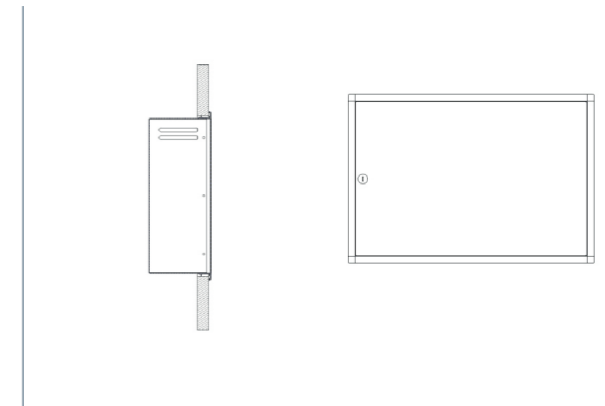


Accessible from any PC, laptop, tablet or smartphone without having to download any applications. Compatible with most popular browsers gives you access and functionality WHEREVER YOU ARE, with the possibility of data backup.

FASTENING OF PLC BOX

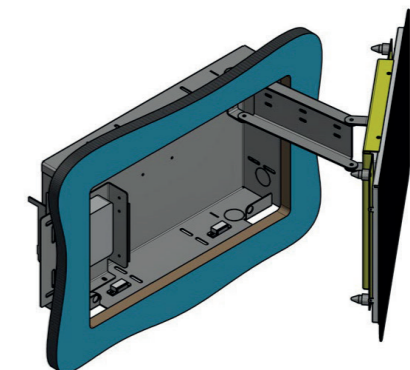
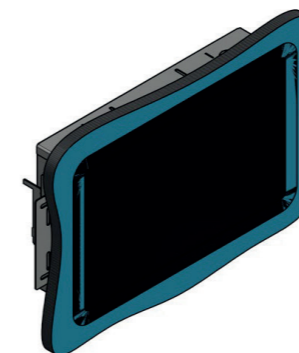


ON FALSE CEILING Standard Option



RECESSED

FASTENING OF LINDO® TOUCHSCREEN CONTROL PANEL BOX



OPTIONAL ACCESORIES



DIFFERENTIAL PRESSURE MEASURING FOR AMBIENT

- To measure the differential pressure between the operating room and the external area
- Analog output 0-10V
- Alarm displayed on LINDO® TOUCHSCREEN OPERATING ROOM CONTROL PANEL
- Included adaptor for false ceiling

DIFFERENTIAL PRESSURE MEASURING FOR HEPA FILTER

- To measure the differential pressure between input and output of HEPA filter
- Analog output 0-10V
- Alarm displayed on LINDO® TOUCHSCREEN OPERATING ROOM CONTROL PANEL



TEMPERATURE AND HUMIDITY MEASURING FOR AMBIENT

- To measure the temperature and humidity in the OR (0 - 50°C / 0 - 100%)
- 2x Analog output 0-10V
- Both value displayed on LINDO® TOUCHSCREEN OPERATING ROOM CONTROL PANEL



PRESSURE TRANSMITTER FOR MEDICAL GASES

- Pressure measure from 0 to 16 bar
- Analog output 0-10V
- For O2, AIR4, AIR8, N2O, CO2, N, ENX
- With cable 1,5mt
- Value displayed on LINDO® TOUCHSCREEN OPERATING ROOM CONTROL PANEL



DOUBLE STATE PRESSURE SWITCH FOR MEDICAL GAS

- Pressure switch calibrated 3,2 (low level)
- Pressure switch calibrated 4,8 (high level)
- For O2, AIR4, N2O, CO2, N, ENX
- With cable 1,5mt
- Alarm displayed on LINDO® TOUCHSCREEN OPERATING ROOM CONTROL PANEL



DOUBLE STATE PRESSURE SWITCH FOR AIR 8 BAR

- Pressure switch calibrated 6,4 (low level)
- Pressure switch calibrated 9,6 (high level)
- For AIR8
- With cable 1,5mt
- Alarm displayed on LINDO® TOUCHSCREEN OPERATING ROOM CONTROL PANEL



VACUUM SWITCH FOR VAC

- Vacuum switch calibrated -0,4 bar
- With cable 1,5mt
- Alarm displayed on LINDO® TOUCHSCREEN OPERATING ROOM CONTROL PANEL



FINISHING FRAME

- To cover hole
- For 22" touch screen



UPS SYSTEM

To have continuous supply to touch screen in case of blackout
Manual emergency controls to control



MANUAL EMERGENCY CONTROLS

To control lighting and other basically device in case of blackout or emergency

TECHNICAL DATA SHEET

SHD®

DISPLAY

Display	21.5" /31.5" TFT LCD LED Backlight /
Active Display Area	Active Display Area 476.6 x 268.1 mm / 18.76 x 10.55 inches
Aspect Ratio	16:9
Native Resolution	1920 x 1080 at 50, 60 Hz
Colors	16.7 million
Brightness (typical)	LCD Panel: 250 nits;
Response (typical)	5ms
Viewing Angle	Horizontal: 85°/170°; Vertical: 80°/160°
Contrast Ratio	1000:1
Power Consumption	ON (monitor + power brick): 18W SLEEP (monitor + power brick): 1.5W OFF (monitor + power brick): 0.5W
Temperature	Operating: 0 °C to 40 °C (32 °F to 104 °F); Storage: -20 °C to 60 °C (-4 °F to 140 °F)
Humidity	Operating: 20% to 80%; Storage: 10% to 95%
Benefits	PCAP 2GS (two glass solution) offers pristine optical clarity and touch durability High definition LCD display offers ultimate HD interactivity, clarity and resolution LED backlighting allows for state-of-the-art slim design while reducing power consumption 10 touch projected capacitive (PCAP) with Thru-glass capabilities that passes UL-60950 & IK-07 Impact testing

HARDWARE

CPU	Intel processor, 4GB RAM, 64GB SSD, Win10 Pro
PLC	Siemens S7 -

Siemens core components are used because of the brand and its spare parts globally available.
The number of inputs and outputs both digital and analogue can be modified (with additional costs).

REGULATION

The equipment should be considered **Class I CE marked**
Low voltage directive (LVD) 2014/35/UE
Electromagnetic compatibility (EMC) 2014/30/UE

MADE IN ITALY

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