Neonatalogy secondary - Analog input

Oxygen	4.6 bar
Medical Air	4.7 bar
Vacuum	-830.6 mbar
Nitrous oxide	4.3 bar
Settings	

15:19
16.1.2017

Power

Emergency
Alarm

Operating
Alarm

Ethernet
USB

TLV Healthcare

TLV Healthcare
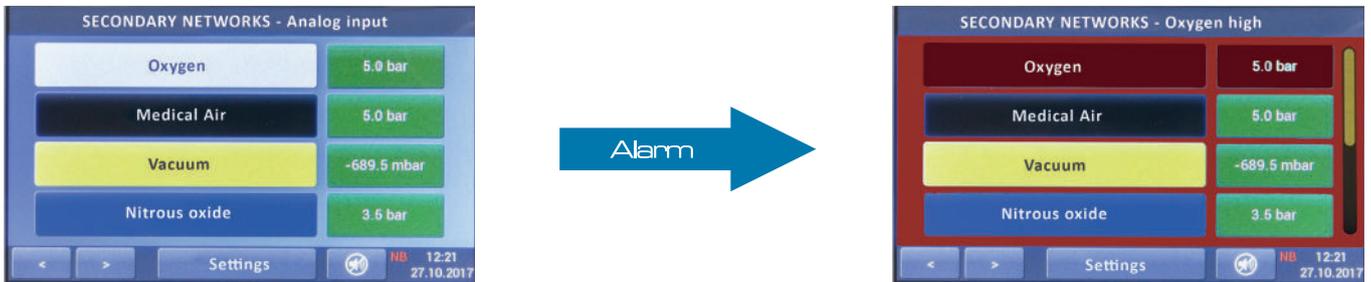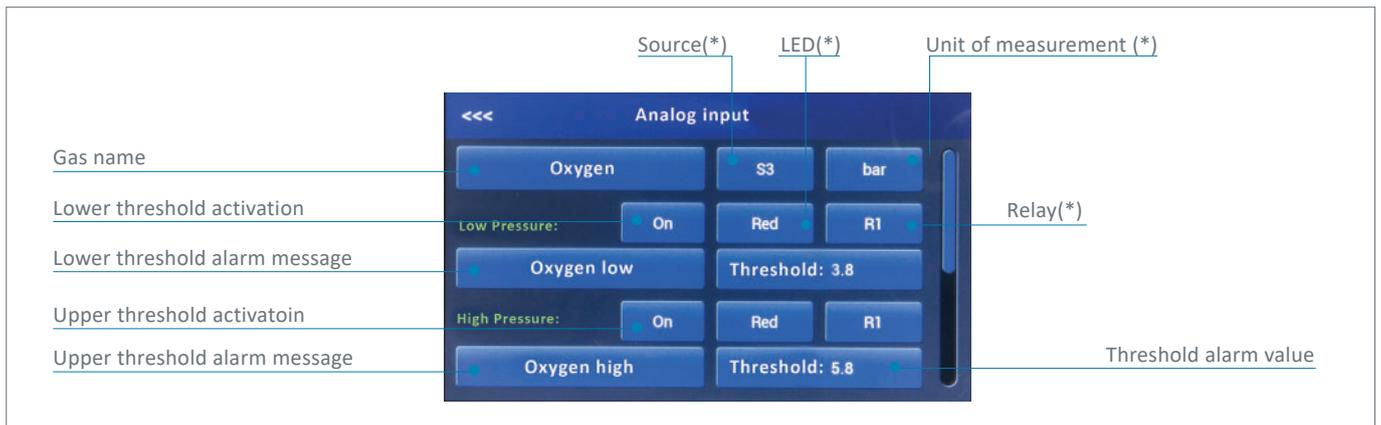
OT/ICU Resuscitation / Medical Gas Monitoring

Signalling & Alarms

SECURIDYS 816 (8 analog inputs and 16 logic inputs) units have been awarded the CE Marking. They can be configured according to your needs, to monitor medical compressed gas distribution and vacuum systems in accordance with the standards and regulations in force.

The analog and logic channels on eight different networks (sources, tanks, compressors...) can all be monitored by the same unit.

Control

*Configuration :

• Unit of measurement: bar or mbar.

• Relay: R1 (activation of relay 1), R2 (activation of relay 2), R1-R2 (activation of relay), - (no activation of relay).

• LED: Red, Yellow, - (no LED).

• Affected source: S1, S2, S3, S4.

The dimensions of the box allow it to be installed in line with most medical gas devices on the market, with easy access for installation, wiring, configuration, and maintenance.

FUNCTIONALITY

The various parameters of each of the analog or logic inputs and their transmitters (see table below) can easily be fine-tuned according to your specifications by entering an access code according to the standards and regulations in force.

Background

Memory capacity	108 elements
Date display	dd/mm/yy
Page display	active/total
Display of stored events	Yes
Time display	hh :mm

Analog input

Type of network	One-press/ Two-press
Section(s) monitored (1)	1 to 4 (S1, S2, S3, S4) *
Gas name	Name + color
Unit of measurement	b or mb
Upper threshold alarm message	30 characters
Upper pressure threshold	- 1000 to 1000
Upper threshold alarm activation	Activated or not
Upper threshold audible and visual alarm	2 options (2)
Lower threshold alarm message	30 characters
Lower pressure threshold	0 to 1000 or 0 to -1000
Lower threshold alarm activation	Activated or not
Lower threshold audible and visual alarm	2 options (2)

Analog sensor

Pressure corresponding to 20 mA	- 1000 to 1000
Pressure corresponding to 4 mA	- 1000 to 1000
Pressure correction (offset)	- 1000 to 1000
Sensor error alarm message	30 characters
Sensor error alarm activation	Activated or not
Sensor error audible and visual alarm indication	2 options (2)
Sensor error alarm indication delay	0 to 250 seconds

Logic input

Type of network	One press -> individual logic input Two press -> Logic inputs coupled (S2 ;S3)
Section(s) controlled (1)	S1, S2, S3, S4*
Gas name	30 characters
Digital alarm message	30 characters
Digital alarm activation	Activated or not
Digital audible and visual alarm indication	2 options (2)
Digital contact type	NC or NO

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* S1 : Supply source
  S2 : Primary network
  S3: Secondary network
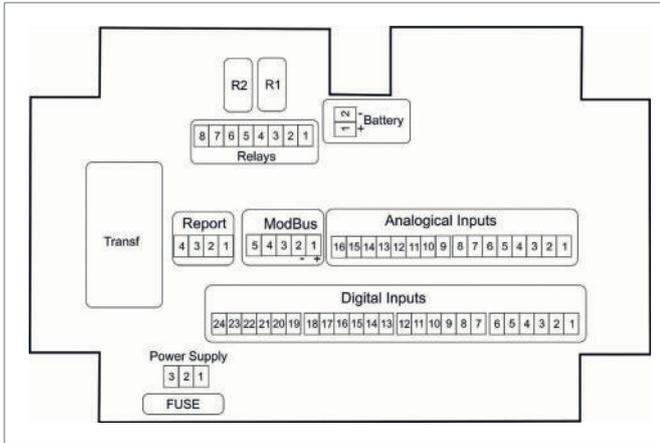 S4: Single supply

(1) In double pressure configuration only
(2) Emergency operation

INSTALLATION

The box can be connected either from the wall or any of the four sides of the box.

Maintenance

All the equipment is grouped in the front of the case and secured to the facade. The connectors are unpluggable, equipped with a polarizing device and identified according to the diagram below:

The saving and loading of the client configuration are achieved through the USB interface and via the 5 '' touch screen.

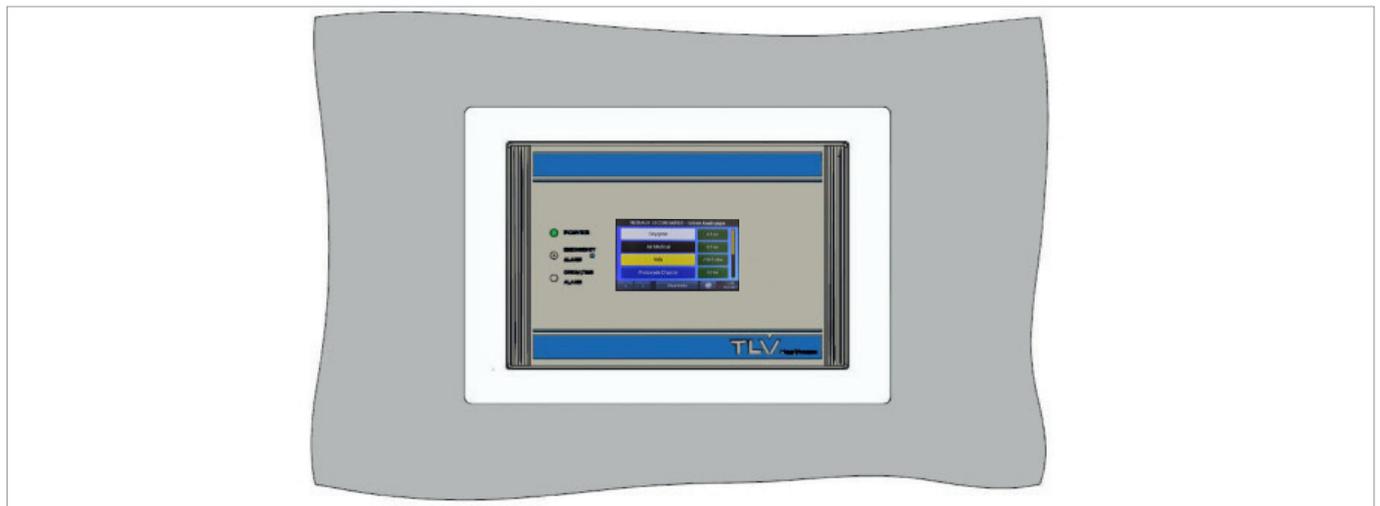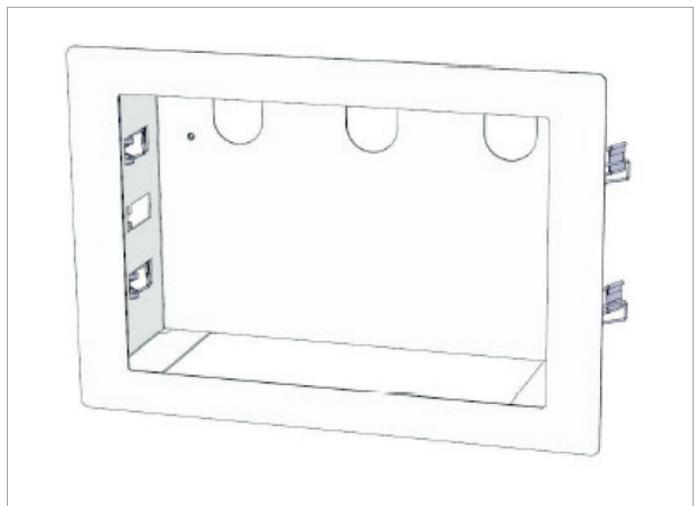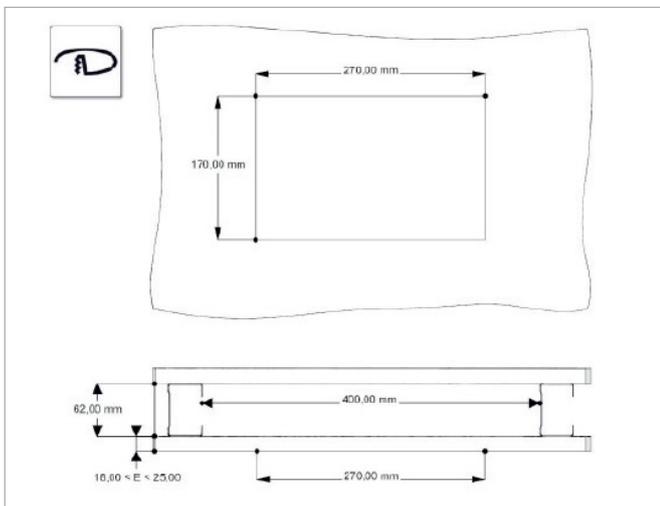The SECURIDYS offers as an option, a recessed box.

Signal report

Communication via the RS 485 BUS dedicated to reports offers all the possibilities of signal transfer to the report modules via two-pair cables from one report to another over a cable distance of up to 1000 meters*.
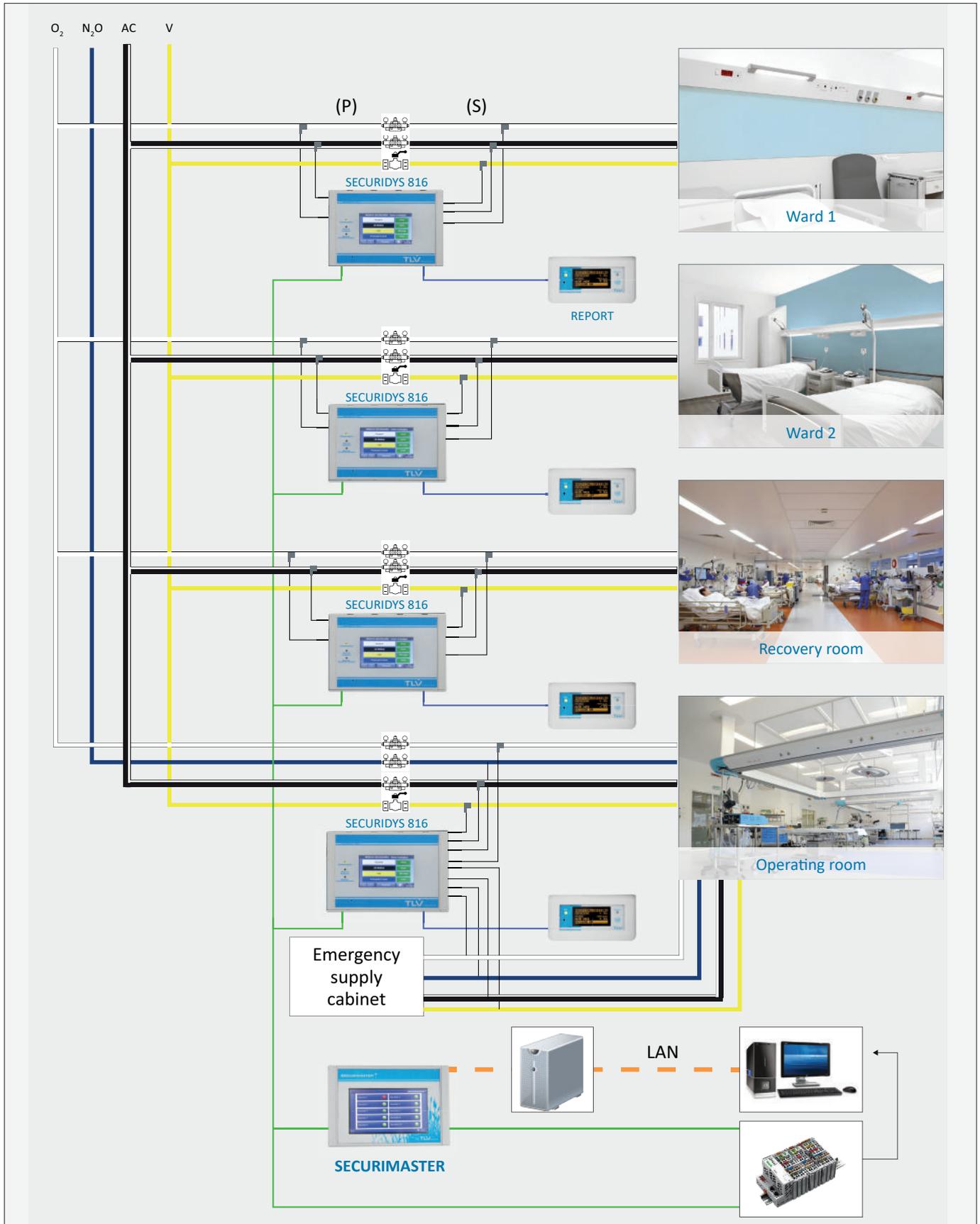

The OLED screen of the SEC MIR report displays all the information and alarms of the unit. The OLED screen module lets you view the same data as a mirror unit but at lower cost and with the advantage of a more compact unit.
The flush or surface mounting are easier by using MOSAIC 45 dimension.

The various solutions offered by the SECURIDYS product range allow easy transmission of signals and alarms in your medical gases networks.

O₂   N₂O   AC   V

(P)   (S)

SECURIDYS 816

Ward 1

REPORT

SECURIDYS 816

Ward 2

SECURIDYS 816

Recovery room

SECURIDYS 816

Operating room

Emergency supply cabinet

LAN

SECURIMASTER

——	RS 485 BUS transfer cable*	(P) Primary
——	485 Modbus*RTU or TCP/IP	(S) Secondary
▪ ▬ ▪ ▬	TCP/IP Ethernet cable	

SIGNAL TRANSMISSION

The real-time availability and storage of signals is essential, whether this concerns a maintenance standby signal or connection to a CTM or BMS software package.

The SECURIDYS range offers every possible technological opportunity to send, centralize, save, and analyze information obtained by monitoring your medical gas networks.

With the RS 485 RTU BUS or TCP/IP protocol, transfer all the data concerning the status of your gas

Information is transferred from the units to the report modules by a different RS 485 BUS from the one dedicated to Centralized Technical Management or the Building Management System. The Securidys is able to manage two communication protocols: ModBus RTU and ModBus TCP / IP.

The ModBus RTU protocol of SECURIDYS units, with their built-in power supply, allow data to be transferred safely over a distance of 1000 meters via a Belden 9841 or equivalent cable.

The ModBus TCP / IP protocol uses the intranet network of the hospital for the transfer of information.

With SECURIMASTER, it is easy to centralize the data on your touch screen

When connected to the units via the RS 485 BUS, SECURIMASTER allows you to centralize the monitoring and alarm data from 30 SECURIDYS or five SECURIMASTER units.
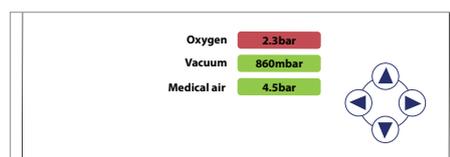

The SECURIMASTER supervision module provides you with remote information via the Modbus RS485 TCP/IP or BACNET protocols.
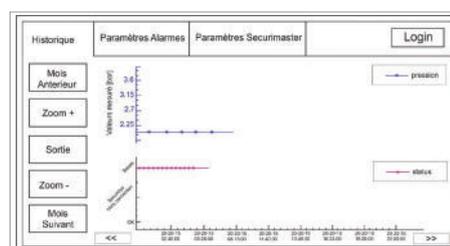

Data processing

On the SECURIMASTER screen, you can monitor the status of each SECURIDYS alarm unit connected.

Select one of the icons to switch to a screen representing the alarm unit of the service concerned, with the gas pressure values.

Select one of the gases to view its data history.

Monitoring and alarm system for compressed gas distribution and vacuum networks

SECURIDYS alarm units		
Part No.	**Model**	**Description**
519368	SECURIDYS 816	8 analog inputs and 16 logic inputs with MODBUS interface
519347	SECURIMASTER +	Supervision unit for 30 units or five supervision units with interface MODBUS RTU
815699	SECURIMASTER +	Supervision unit for 30 units or five supervision units with interface TCP/IP MODBUS
815700	SECURIMASTER +	Supervision unit for 30 units or five supervision units with interface TCP/IP BAC NET
519361	SECURIREP	Amplifier module / repeater / RS 485 MODBUS (1) signal isolator
517061	SEC a	12 V DC power supply for amplifier module
518369	SEC b	Spare battery for SECURIDYS 816

(1) 12 V DC power supply not included

SECURIDYS alarm report		
Part No.	**Model**	**Description**
519222	SECURIDYS MIR	OLED screen alarm information transfer module (2)
519209	SECURIDYS BMS	Surface-mounted transfer module box (LEGRAND Cat. No. 802 85)
500569	SECURIDYS BME	Flush-mounted transfer module box (LEGRAND Cat. No. 800 42)

(2) On five-module MOSAIC support (LEGRAND Cat. No. 802 52) supplied with horizontal plate (LEGRAND Cat. No. 788 15)

SECURIDYS sensors and accessories		
Part No.	**Model**	**Description**
815601	SEC 206	Degreased pressure sensor 0 / 16 bar (4 - 20 mA) (3)
815602	SEC 207	Negative pressure sensor 0bar / -1000 bar (4 - 20 mA) (3)
519214	SEC 201	Pressure switch, adjustment range 4 to 9 bar, maximum pressure 20 bar
519215	SEC 202	Pressure switch, adjustment range 9 to 15 bar, maximum pressure 20 bar
519218	SEC 205	Negative pressure switch, adjustment range -150 to -1000 mbar
519220	SEC 210	Weldable microleak mounting base for M10 sensor on pipe
519228	SEC CCF	Replacement cable for analog sensor, length 2 meters, and M10 (IP 67) connector
815690	Z4052	Recessed box for SECURIDYS

(3) All of our sensors are supplied with 2-m cable and M12 (IP67) connector

Norms & recommendations

• CE Medical Devices Marking according to 93/42/EEC Directive

• EN ISO 7396-1: Medical gas pipeline systems - Part 1

Bed head units, Wall lighting units, Ceiling pendants, Suspended Beams & Columns,

Special care bed head units, Sealed lightings, Medical gas monitoring & Biomedical Accessories