

## COMPANY PROFILE

**TELEMEDICA is a Company that designs, develops and produces control systems and alarm devices for medical, technical and pure gases sectors**

The range of activities that TELEMEDICA offers to customers includes:

- Design, development and production of a wide range of devices for the medical field, able to satisfy all application that are usually required: alarms and control devices for medical gas manifolds, alarm devices to control gases pressure and valve status in department and in central units, devices (also using wireless technology) to control tanks and other special applications.
- Design, development and production of safety and regulating devices for medical and industrial applications: gas mixers, analyzers, leak detectors.
- Design, development and production of control systems to satisfy all possible needs of technical and industrial gases distribution plants.
- Design, development and production of several products on behalf of other prestigious and well-known companies. These products are currently sold by them and are marked with their own brands.
- Providing highly integrated solutions to control and supervise entire medical gases distribution plant in every clinical environment and allowing integration with every Building Management System (BMS).
- Providing services for installing pipelines or requalification and updating to latest European and international standards.



## LEDs, LCD, OLED ALARM DEVICES and DATA VISUALIZERS

Telemedica develops and produces a wide range of alarm devices for medical and technical use.

These devices accept signals from transducers and pressure switches.

Different wired communication protocols are available such as MODBUS RTU and MODBUS TCP/IP.

LEDs and ringtone complete the alarm signaling.

The device can be fully set using the pushbuttons or in some device using the on board USB port through a standard PC or our APP (using a smartphone).

These devices are supplied in modular external DIN boxes and can be installed into an external or wall embedded electric box or, in some cases, in a recessed version.



| CODE         | TYPE         | DIN BOX<br>DIMENSIONS | ANALOG INPUTS<br>4-20mA TRANSDUCERS | ON-OFF INPUTS<br>PRESSURE SWITCHES | CARRYOVER<br>RELAYS |
|--------------|--------------|-----------------------|-------------------------------------|------------------------------------|---------------------|
| TMA6701 -(T) | LEDs         | 6M                    | -----                               | 9                                  | 1                   |
| TMAG2201     | LEDs         | -----                 | -----                               | 12                                 | 1                   |
| TMAF501      | LEDs         | -----                 | -----                               | 13                                 | 1                   |
| TMA6703      | LCD DISPLAY  | 6M                    | -----                               | 16                                 | 1                   |
| TMA9705-ETH  | OLED DISPLAY | 9M                    | 6                                   | 16                                 | 3                   |
| TMA4902      | GRAPHIC BARS | 4M                    | 2                                   | -----                              | 1                   |
| TMA4804      | DIGIT LEDs   | 4M                    | 1                                   | -----                              | 2                   |



## TFT TOUCHSCREEN ALARM DEVICES

Telemedica develops and produces a wide range of TFT (from 4.3" to 10.1") color touchscreen alarm devices, for departments and central units. These devices accept signals from transducers and pressure switches. Different wired communication protocols are available such as MODBUS RTU, MODBUS TCP/IP, BACNET, CANBUS, PROFIBUS, PROFINET. Wireless data transmission is possible through WiFi, LoRa, Bluetooth interfaces.

The alarms can be fully set as clinical, operative and prealarm.

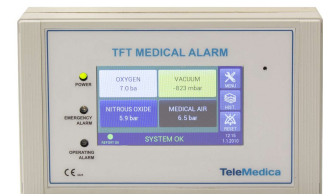
LEDs and ringtone complete the alarm signaling.

The device can be set using the TFT display or using the USB port on board through a smartphone equipped with our app or such as a standard PC.

These devices are supplied in an external box or supplied in a recessed version for a wall embedded solution.

All the devices can be equipped with an external backup battery.

One or more of our environmental sensors can be connected to TFT devices and relative measures and alarms are integrated with other values and alarms.



| CODE      | TFT DIMENSIONS | ANALOG INPUTS (4-20mA)<br>for TRANSDUCERS | ON/OFF INPUTS<br>for SWITCHES | CARRYOVER<br>RELAYS |
|-----------|----------------|-------------------------------------------|-------------------------------|---------------------|
| TMATFT101 | 10,1"          | 8                                         | 16                            | 4                   |
| TMATFT070 | 7,0"           | 8                                         | 16                            | 2                   |
| TMATFT07  | 4,3"           | 8                                         | 6                             | 2                   |
| TMATFT03  | 4,3"           | 6                                         | 4                             | 2                   |
| TMA5TFT   | 5,0"           | 8                                         | 16                            | 2                   |



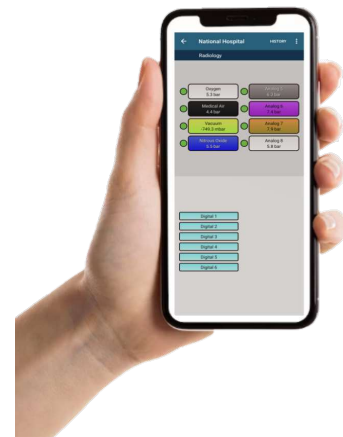
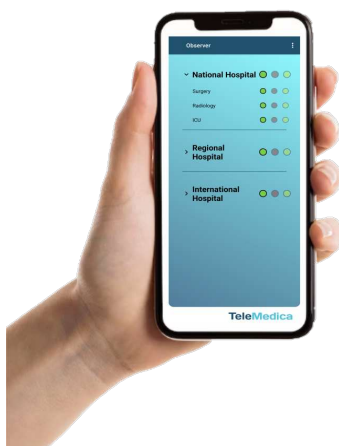
## ON FIELD EASY CONFIGURATION

Our devices can be easily configured on field thanks to our mobile APP. The installer has just to connect the USB cable between our device and a smartphone, run our APP and modify what needed.

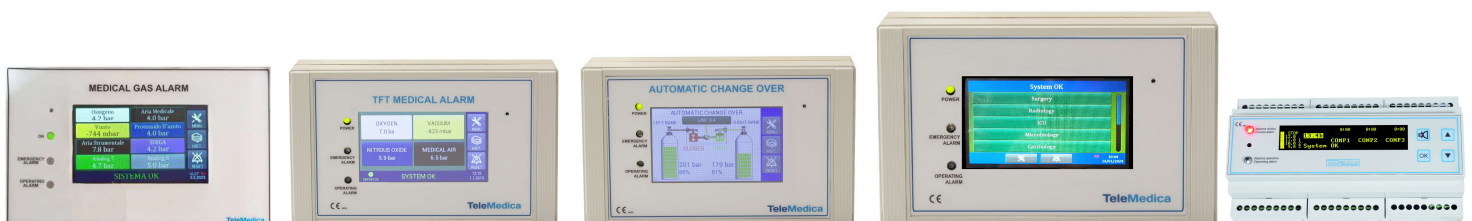


## MONITORING APP

Our cloud based telecontrol system has an APP to instantly notify alarm messages using a smartphone.



Every user can supervise in real time all the plants and peripherals associated to his own account, so every action required, or maintenance can be extremely optimized.



## GASMASTER



**GasMaster is a device able to monitor the peripheral alarm units (up to 50) installed in the gas plant.**

**All data collected from the alarm units are shown on the TFT touchscreen display. To integrate this unit (all the alarm device units) this device can be connected to a Building Management System (BMS) using protocols such Modbus RTU, Modbus TCP/IP, BACnet, CANBUS, PROFIBUS and PROFINET.**

**Multiple GasMasters can be used if the gas plant has more than 50 alarm units installed.**

## MANAGEMENT SYSTEM SOFTWARE

**Software for Windows PC to control the status of the gas plant.**

**Through this software data coming from one or more Gasmasters or other single device are available and shown on one or more PCs in real time.**

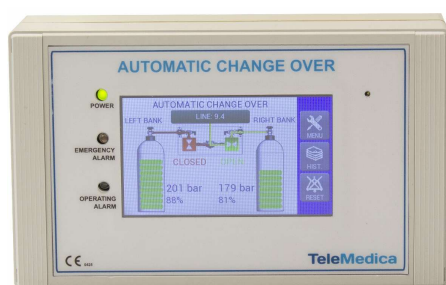
**This system can be connected to other systems like BMS.**



## AMBULANCE SYSTEMS

Telemedica supplies a wide range of solutions for gas supply systems for ambulances, from base alarms with only LEDs to TFT touch panel, performing also advanced features as integration in ambulance CAN bus or other local network, as connection to internet remote control systems or as Internet of Things, thus to allow real time control and even other feature as geolocalization systems.

### TFT Unit

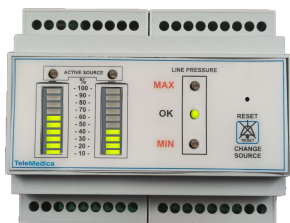


4.3" TFT touchscreen unit that shows:

- graphical filling of cylinders in percentage, different colors for the state of the source (green if OK, yellow if in pre-alarm, red if in alarm);
- the real pressure in each cylinder and the line output pressure;
- the active working source;
- all the strings of the alarms eventually running.

The acoustic alarm can be silenced touching related button on the screen. The unit can perform the automatic switching over of the source and also allows the operator to manually switch pressing the related button. Needs transducers and electrovalves (if the switching has to be operated by the unit).

### Bargraph Unit

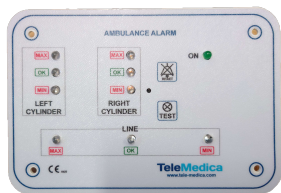


LEDs for line (pressure alarms min/max, OK), triple color bargraph for left and right sources, showing as percentage bars the filling of cylinder, alarm and pre-alarm (green if OK, yellow if in pre-alarm, red if in alarm), LEDs to indicate the working source, acoustical alarm.

The unit can perform the automatic switching over of source and also allows the operator to switch by himself.

Needs transducers and electrovalves (if the switching has to be operated by the unit).

### LEDs Unit



LEDs for line (pressure alarms min/max, OK), LEDs for left and right sources (pressure alarms min/max or pre-alarm/min, OK), working source indication, acoustical alarm sound.

Needs only pressure switches.

#### To complete the system are also available:

Pressure reducers, changing over, pressure switches, transducers, electrovalves.

#### Customization:

Any kind of customization is possible for OEM production.

We offer any possible consulting also for the integration in automotive systems.



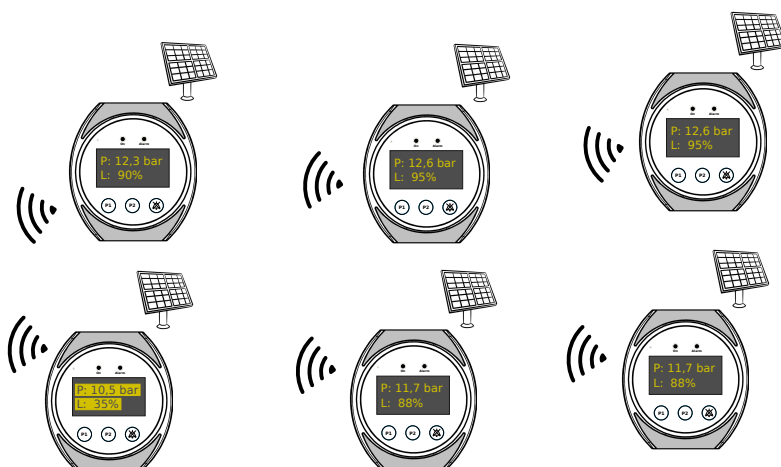
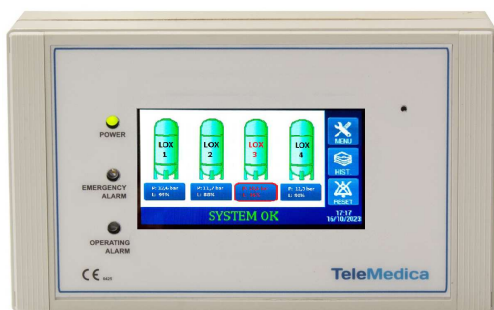
## CRYOBANK SYSTEMS AND DEWAR MONITOR UNITS



We offer systems to monitor cryobank and dewar monitor units.

This control unit monitors the temperature, lid status, and, if necessary, the dewar pressure in real time, and transmits this data wirelessly through a LoRa connection to the main device. It is also equipped with a battery pack that allows it to operate unplugged from the mains for a sufficient period for normal logistics operations.

## LOX TANKS CONTROL SYSTEM



We produce a system that controls the status of the LOX tanks.

The peripherals can operate alone or together with the main device.

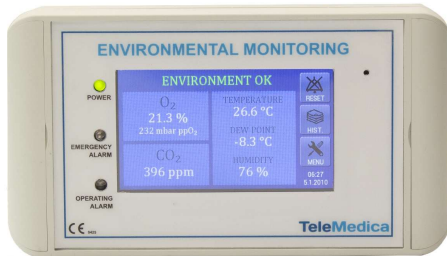
The main device collects up to 16 peripherals, wireless, in optimal conditions, in a range of some km, as to LoRa protocol and in accordance to local condition and regulations.

The peripheral devices can be powered with a solar panel backed up with a battery, or external powered.

Once the data are collected by the main device, they are accessible to various systems across Ethernet or Modbus protocol (both IP or RTU), and sent to our cloud based app system.



## ENVIRONMENTAL MONITORS



We offer devices to monitor environmental O2, CO2, air temperature, humidity and dewpoint.

All the sensors are integrated in the same box that sends the data to the monitor unit. The data coming from more monitor units can be collected from an external device and be available on its TFT touchscreen display, on the web, on the cloud and through our APP on a smartphone.



SENSOR BOX



SENSOR BOX

## AIR QUALITY ANALYZERS

We produce a control system that monitors the parameters of the air delivered to the patients.

All the values are displayed on the TFT touchscreen display and, in case of the limit value is exceeded, the system triggers an alarm (visual and acoustic). The default limits pre-configured in the system are the ones required by the Pharmacopoeia.

The data coming from the unit can be collected from an external device and be available on its TFT touchscreen display, on the web, on the cloud and through our APP on a smartphone.

