

Ambulance Oxygen Supply and Management System



This Ambulance changeover system is designed to automatically switch between oxygen sources (cylinders), left and right banks, enabling a continuous flow of oxygen to patients in need during transport to medical facilities.

A touchscreen control/alarm panel monitors the gas pressure in each cylinder and shows/alerts the medical staff in case of a pressure drop and other parameters.

- Rich interface control/alarm panel
 displays data graphically and digitally, enables
 a precise and efficient real-time view
 of gas supply to patients in the ambulance.
- Remote online monitoring of oxygen supply systems for individual ambulances and entire fleets enhances gas utilization efficiency, resulting in significant cost savings.
- SMS alert when oxygen pressure reduces to a pre-set level.
- Audio and visual alarm.

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The System Consists of:

- · 10.1" full HD LCD touchscreen.
- Medical gas outlets (DIN, ENV, BS, Diamond, DISS).
- · Gas sensors/pressure transmitters.
- · Oxygen pressure regulators.
- · Flexible gas hoses.
- Automatic Changeover unit including manual bypass.
- · Flow selector 0-25 lpm.



Control card/PCB.







Showing the status in the right bank - In use



Empty cylinder alert in left bank after supplying oxygen



Leak detection alert in the right bank while the left bank supplies oxygen

Highlights

· SMS alert sending - optional.

· Web remote view - optional.

Rich interface touchscreen graphicly and digitaly displaying:

- Actual status of each source "In use" or "Stand by".
- Leak detection from cylinders in case the leak is from the standby cylinder
- Periodical maintenance alert.
- Visual & audio alarm signals in case of low pressure in change between cylinders.
- Log history file Event logging, recording all alarms and panel activities at each cylinder.
- Gas expiration date alert an alert for the medical gas cylinder expiration date.
- · Customizable text & language optional.
- A color trend arc showing the gas pressure status on the main line and at each cylinder.





Log History



Gas expiration date alert

Advanced Features

- SMS messages to multiple phone numbers in case of alert when oxygen pressure reduces to a pre-set level - optional.
- Web remote view on the internet optional online view accessible via a web browser.
 This website allows authorized users to remotely access and view the data on the alarm panel in real-time.

Additional data: GPS data showing the current location of each ambulance by its number.

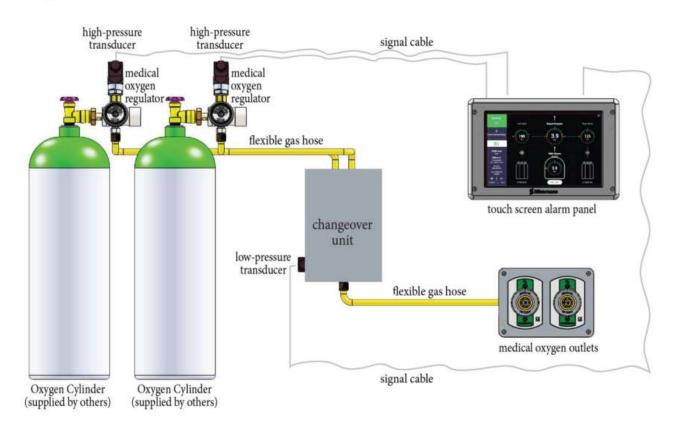
· Display of flow rate and consumption figures - optional



Web remote view on the internet

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Diagram





Advanced Communication

- TCP/IP Modbus
- Update and Upgrading of the software versions with new features is possible anytime after installation.

Applicable Standards

ISO 10524, ISO 5359, EN-1789, NFPA99, NFPA 1917, EN ISO 7396

Silbermann's Quality Management System:

ISO 9001-2015. ISO 13485-2016





