

The image features a dark blue background with several glowing blue diagonal lines and small blue triangles pointing in various directions. In the center, there is a semi-transparent image of a medical control panel with various buttons and a digital display. The panel has the 'MEC' logo on the left and 'ACO' on the right. The main logo 'MEC' is in large, bold, white letters, flanked by two horizontal white bars. Below it, 'MEDICAL LIMITED' is written in a smaller, white, sans-serif font.

MEC

MEDICAL LIMITED

Ambulance
Medical Gas
Pipeline
Products



COVA Series - Automatic Change Over Valve

For automatic switching between two medical gas cylinders to maximise use of gas contents in a safe and controlled way.

The COVA series Automatic Change Over Valve has a clear display showing the pressure in the ambulance pipeline, the cylinder in use, cylinder depleted and mute activated. The unit has three switches, one on each cylinder symbol to manually select the cylinder in use, and a third to activate the mute.

When in use, if the pressure from cylinder 1 falls below a pre-set value then the COVA Automatic Change Over Valve changes to use cylinder 2 and a red LED remains lit to indicate the cylinder has been depleted. If the second cylinder is depleted before cylinder 1 has been replaced / refilled, then the warning sounds to indicate action is required and the valves to both cylinders are opened to use any remaining oxygen available.

After a cylinder is replaced with a full one, a quick and easy button press reset gets the ACOV ready for use.

Designed for use with 12v Automotive power supplies. The COVA also has a feed to communicate with ambulance information systems. Simple to use, the product software carries out internal checks of the sensor calibration so users can have confidence in the product.

The COVA series Automatic Change Over Valve can be used with oxygen cylinders fitted with integral regulators or fitted with separate regulators.



Remote Panel for COVA Automatic Change Over Valve

The Remote Panel duplicates the information and controls of the COVA Automatic Change Over Valve through a wired connection. It can be situated anywhere suitable in the vehicle, such as in the patient compartment enabling Medical Staff to see the information, visual warnings and hear audible warnings without leaving their work area. Control of mute, reset and manual control of changeover can all be carried out at the Remote Panel.



COVC Series - Automatic Change Over Valve

For automatic switching between two medical gas cylinders to maximise use of gas contents in a safe and controlled way.

The COVC series Automatic Change Over Valve has a clear display showing the pressure in each cylinder in Bar together with a green bar graph representation, the pressure of the ambulance pipeline in Bar, the cylinder in use, cylinder depleted and visual warning. The unit has three switches, one on each cylinder symbol to manually select the cylinder in use, and a third to activate the mute when the warning is sounding.

When in use, if the pressure in cylinder 1 falls below a pre-set value then the COVC Automatic Change Over Valve changes to use cylinder 2 and a red LED remains lit to indicate the cylinder has been depleted. If the second cylinder is depleted before cylinder 1 has been replaced then the alarm sounds with a visual warning to indicate action is required and the valve to both cylinders is opened to use any remaining oxygen available.

When a cylinder is replaced, a quick and easy reset gets the Change Over Valve ready for use. Simple to use, the product software carries out internal checks of the line sensor calibration so users can have confidence in the product.

Designed to work with 12v Automotive power supplies. The Change Over Valve also has a feed to be used with ambulance information systems. The COVC series Automatic Change Over Valve is used with oxygen cylinders fitted with separate regulators supplied by MEC.



Remote Panel for COVC Automatic Change Over Valve

The remote panel connects by wire to the COVC Automatic Change Over Valve, so can be situated anywhere suitable in the vehicle, such as in the patient compartment. The Remote Panel duplicates the information and controls of the COVC Automatic Change Over Valve through a wired connection enabling Medical Staff to see all the information such as remaining cylinder pressure, visual warnings and hear audible warnings without leaving their work area. Control of mute, reset and manual control of changeover can all be carried out at the Remote Panel.

Regulators for COVC Automatic Change Over Valve

The regulators for the COVC Series Automatic Change Over Valve have high pressure transducers to detect the cylinder pressure, up to 200 bar. The regulators will be supplied by MEC at the same time as the COVC Automatic Change Over Valve.



LPWP Series – Low Pressure Warning Panel

A warning for use with two cylinder or single cylinder supply systems. Designed to alert medical staff to a drop in the supply line pressure below a pre-set value alerting users to check the supply cylinder and switch to a new supply.

The panel incorporates visual and audible warnings of low pressure, audible mute with mute alert LED indicator, power on indicator. The sensor for the panel is situated remotely so the panel can be located in the position suitable for the medical staff to see the visual warning, hear the audible warning and take action.

The sensor can be incorporated into the COVP Manual Change Over Valve with Pressure Sensor or the LPWB Low Pressure Warning switch mounted on Block.

The panel flush mounts for a minimalist finish. The switches and LED indicators are embedded below a membrane giving a cleanable and hygienic surface.

Designed to work with normal 12v Automotive power supplies. The LPWP also has a feed for communicating with ambulance information systems.



LPWG Series – Low Pressure Warning Gauge

The pressure gauge is mounted in the MEC ORB™ mounting case, so matches the size and finish of the MEC ORB™ Terminal Unit (Wall Outlet) with a smooth gloss finish and rounded corners. Screwless enclosure fixing adds to hygiene. Available with top, right, bottom, left and rear gas entry.

The gauge indicates current line pressure in the pipeline, clearly marked from 0 to 11 bar, 160 psi.



ORB™ Smoothflow Ambulance Terminal Unit

Gas specific outlets to British Standard ensure only the equipment working from the correct gas can be connected. Smoothly finished, without visible screw heads, the Terminal Unit can be surface mounted with gas entry from the top, bottom, either side or rear.



COVM Series – Manual Change Over Valve

The Manual Change Over Valve enables a quick and easy change between supply of gas from two cylinders by operation of the control knob. The cylinder in use is indicated by the arrow on the knob with the pressure gauge indicating the line pressure of the gas. As a cylinder becomes empty, rotate the knob to select the full cylinder. Replace the empty cylinder as soon as convenient.

As other products in the MEC Ambulance Medical Gas Pipeline Products, the COVM can be supplied with surface entry or rear entry gas connections.



COVP Series – Manual Change Over Valve and Pressure Sensor

The Manual Change Over Valve enables a quick and easy change between supply of gas from two cylinders by operation of the control knob. The cylinder in use is indicated by the arrow on the knob with the pressure gauge indicating the line pressure of the gas. As a cylinder becomes empty, rotate the knob to select the full cylinder. Replace the empty cylinder as soon as convenient.

As other products in the MEC Ambulance Medical Gas Pipeline Products, the COVP can be supplied with surface entry or rear entry gas connections.

COVP Series products incorporate a pressure sensor on the line pressure output. This is intended to be linked to the MEC Low Pressure Warning panel.

LPWB Series - Low Pressure Warning Sensor mounted on Block

The block can be attached to the medical gas pipeline supply, giving the low pressure information to the Low Pressure Warning Panel, LPWP.

Ambulance Medical Gas Pipeline Products

Carefully designed to complement modern ambulance design with rounded profiles and gloss white surfaces the range uses anti-bacterial and fire-retardant plastics. Items are available with surface or rear entry and exit for gas and electrical connections, suitable for UK and International configurations.

The range includes:

- **Automatic Change Over Valve.** Automatically switches between two supply cylinders when the first is empty. Working from Line Pressure (for Cylinders with Integral Regulators) or a version working from Cylinder Pressure (for Cylinders with Separate Regulators). The display incorporates cylinder in use, pressure, cylinder requires attention/replacement together with visual and audible warnings for safety critical conditions.
- **Remote Panel.** Duplicates the display and controls on the Automatic Change Over Valve, enabling medical staff to see all the information, visual warnings and hear audible warnings without leaving their work area. Control of mute, reset and manual control of changeover can all be carried out at the Remote Panel.
- **Low Pressure Warning.** A warning system for use with two cylinder or single cylinder systems. The Low Pressure Warning gives visual and audible warning of low pressure alerting users to check the supply cylinder and switch to a new supply. The Low Pressure Warning panel can be located remotely from the oxygen pipeline in the position suitable for the medical staff to see, hear and take action.

The above systems enable users to maximise their use of medical gas cylinder contents while operating safely.

- **Manual Change Over Valve.** Enables quick switching between two supply cylinders while the integral pressure gauge shows the line pressure on the supply to the Terminal Units in the ambulance.
- **Low Pressure Warning Gauge.** Attached to the medical gas pipeline, usually sited near to the terminal units (outlets) and gives visual reassurance of the pipeline pressure, low or high, (0 to 11 bar) to medical staff.
- **ORB™ Smoothflow Ambulance Terminal Unit.** For connecting medical equipment to the gas supply. Smoothly finished without screw heads the outlet can be fixed with gas entry from the top, bottom, either side or rear.
- **Design and Assembly Service.** MEC Medical Ltd. will draw a schematic diagram illustrating the pipeline systems for the buyer, so as to be clear what is being proposed for supply. Advice is available free of charge. Medical Gas Pipelines are a Class IIa Medical Device. MEC Medical Ltd. quality management system is audited and certified to ISO9001:2015 and ISO 13485:2016 with all products carrying CE marking to the latest Medical Devices Directive 93/42/EEC. Assembled systems are supplied tested and certified.
- **Accessories.** A range of pipeline fittings and accessories are available. These include assembly fittings, threaded connectors such as NIST and DISS, colour coded hoses, crimping ferrules, battery powered crimper, ambulance pipeline test equipment. Accessories include single stage regulators, two stage regulators, medical equipment hoses, medical rail, flowmeters, gas powered venturi suction, autoclavable suction jars, analgesia demand valve (50% O2/N2O).

The MEC range is available for the range of medical gases including Medical Oxygen, Medical Air, Medical Oxygen/Nitrous Oxide premix.

