

**DOUBLE STAGE PANEL BOARDS, type APR 40 PLUS, WITH AUTOMATIC SWITCH-OVER SYSTEM**

THE DOUBLE STAGE PANEL BOARD, type APR 40 PLUS, WITH AUTOMATIC SWITCH-OVER SYSTEM for medical gas is conceived and manufactured according with MDD 93/42 EEC and subsequent amendments and harmonized standards ISO EN 7396-1, EN 10524-2, EN 737-3 and according with HTM 02-01.



The DOUBLE STAGE PANEL BOARD APR 40 can be used as a primary and secondary source or, in case of presence of a main source like cryogenic tank, vaporizer, compressed air by compressors, etc can be used such as secondary source and reserve.

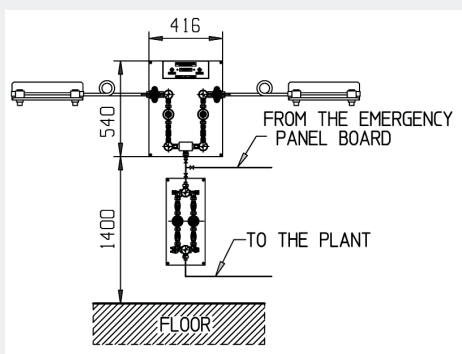
The first and second stage panel boards have the goal to reduce the pressure from cylinders (210 bar) to the in line pressure (5 or 6 bar).

In these types of systems the pressure of the cylinder is directly reduced to the working pressure of the outlet installed in the hospital rooms, operating rooms etc..

In order to reduce the cylinder pressure to the in line pressure, the two-stage station is composed by one unit to reduce the high pressure and one unit to further reduce the pressure to 5/6 bar.

CODE	DESCRIPTION
QRI- 0415	DOUBLE STAGE CENTRAL UNITS APR 40 PLUS O <sub>2</sub>
QRI- 0416	DOUBLE STAGE CENTRAL UNITS APR 40 PLUS AC
QRI- 0417	DOUBLE STAGE CENTRAL UNITS APR 40 PLUS N <sub>2</sub> O
QRI- 0418	DOUBLE STAGE CENTRAL UNITS APR 40 PLUS CO <sub>2</sub>
QRI- 0419	DOUBLE STAGE CENTRAL UNITS APR 40 PLUS N <sub>2</sub>
20601095	METAL COVER LAQUERED FOR AUTOMATIC PANEL BOARD 40 CU.MT./HR
20601075	METAL COVER LAQUERED FOR RESERVE SECOND STAGE 30 CU.MT./HR

# DOUBLE STAGE PANEL BOARDS, type APR 40 PLUS, WITH AUTOMATIC SWITCH-OVER SYSTEM



THE FIRST STAGE panel board develops an initial reduction of the pressure cylinder to a 12 bar pressure .

In case of exhaustion of the operating source the pneumatic device will automatically exchange the source providing that the pressure never falls below 10 bar.

Also, when the pressure of the cylinder is below 20 bar the high pressure gauge sends a signal of empty manifold that switches on a red led placed on the central section of the unit.

Please also note that the signal must also be displayed 24 hours a day in a remote controlled location.

Each regulator has a 40 cu.mt/hr load at a pressure of 10 Bar

## THE SECOND STAGE CONTROL UNIT

Is composed of 2 regulators connected together.

During normal operation only one regulator will work while the other one will be kept in reserve, keeping the inlet and outlet valve closed. The inlet pressure coming from the first stage unit (12 /10 bar) is further reduced to 6 bar. Each line provides 30 cumt/hr load per reducer at a pressure of 6 Bar.

## DEVICE DESCRIPTION

1) First stage control unit consisting of :

A) 1 - PAINTED STEEL WHITE PANEL

B) 2 - IN LINE HIGH PRESSURE VALVE

C) 2 - PRESSURE SWITCH SCALE 0/315 BAR

(the gauge is set to send a signal of empty manifold when the cylinders pressure is less than 20 bar)

D) 2 - FIRST STAGE BRASS MEMBRANE REGULATORS, 40 cu.mt/hr load each, complete with :

- Inlet filter

- Safety valve set at 12 bar

D) 2 - PRESSURE gauge SCALE 0/16 BAR to display the outlet pressure

E) 2 - BALL VALVE ( LOW PRESSURE )

F) 1 - pneumatic SWITCH-OVER DEVICE complete with signal sensor of operating manifold

G) 1 - ONE CENTRAL SECTION DISPLAY:

Central control panel with the kind of unit, the gas treated

and the indication of the function of the led

2 red LEDS to display the empty manifold

2 green LEDS to display the operating manifold

2) Second stage control unit consisting of:

A) 1 - PAINTED STEEL WHITE PANEL

A) 1 - INLET CONNECTION with fitting to weld

B) 2 - BALL VALVE ( LOW PRESSURE )

C) 2 - PRESSURE gauge SCALE 0/16 BAR to display the inlet pressure

D) 2 - 2° STAGE BRASS MEMBRANE REGULATOR,

30 cumt/hr load each complete with:

- Inlet filter

E) 2 - PRESSURE gauge SCALE 0/10 BAR to display the outlet pressure

F) 2 - BALL VALVE ( LOW PRESSURE )

G) 1 - OUTLET CONNECTION with fitting to weld

NA	O2 – AC – N2 REDUCER KIT COD. 20810023	CO2 – N2O REDUCER KIT COD. 20810022
1	OR 2087 VITON	OR 2087 NBR
2	SHUTTER SPRING	SHUTTER SPRING
3	SHUTTER	SHUTTER
4	NBR MEMBRANE	NBR MEMBRANE
5	TEFLON MEMBRANE	TEFLON MEMBRANE
6	CANVAS RUBBER MEMBRANE	CANVAS RUBBER MEMBRANE

