

MERCURY®

PRESSURE REGULATOR WITH AN INTEGRATED CYLINDER VALVE

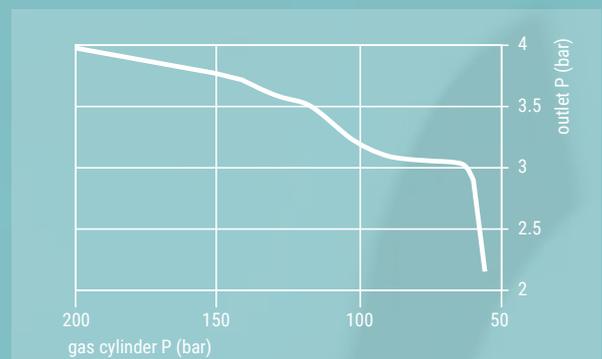
The **MERCURY®** pressure regulators, complete with an integrated cylinder valve, are suitable for direct mounting on oxygen cylinders using the threaded connector 25E (EN 629-1) or 17E (EN ISO 11116-1).

The **MERCURY®** pressure regulators have a refilling valve appropriate to the required standards of the country of destination. An ergonomic knob allows the user to quickly open and close the cylinder flow, and gives a clear indication about the status of the system (ON-OFF). This device has a double stage preset output pressure, with a control gauge to indicate the pressure in the gas cylinder. The **MERCURY®** pressure regulator has a chrome-plated brass structure and is equipped with a preset overpressure valve as a protection against any malfunction in the system. A flowmeter with calibrated orifices supplies the gas through a hose connector with flow adjustable from 2 to 14 L/min., in intervals of 2 L/min. A terminal unit (optional) can be integrated to supply emergency apparatus.



01 MERCURY® WITH EXTERNAL PROTECTION

02 CYLINDER REFILLING VALVE WITH SCREWED PROTECTIVE CAP



Pressure Ramp | First stage reducer pressure ramp, with constant flow rate of 40 L/min. O₂ - 23 °C.

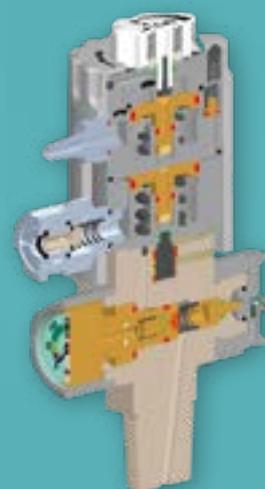
PERFORMANCE FEATURES | The **MERCURY®** pressure regulator may be opened and quickly and easily closed; the high pressure closure is obtained through a bistable, two-way drum valve with outlet, controlled by a knob which houses a lever directly connected to the drum enabling movement from the closed to the open position. The knob has two stable positions obtained through a ball and spring system. The rotary movement of the ring covers or uncovers the ON-OFF symbols, and the window which appears has a red background corresponding with the closed position, or a green background corresponding with the open position, enabling the status of the device to be visible at a distance. The gas cylinder is recharged through a one-way valve with a protective cap. The first stage reducer has been sized to guarantee the flow of gas to the patient and those necessary for the operation of any equipment connected to the specific gas outlet. The overpressure valve is set during manufacture and is not-modifiable. First and second stage regulations are also set during manufacture. A calibrated orifice flowmeter forms part of the regulator valve body and cannot be detached without opening and disabling the valve itself.





WORKING PRINCIPLE | The **MERCURY®** pressure regulators basically consist of:

- a coupling with conical threading 25E or 17E for connection of the valves to the gas cylinder;
- a gas recharging coupling of the residual pressure type, with a shutter (dimensions comply with the different reference standards of the country of destination);
- a hose coupling for supply of the gas necessary for the therapy being performed;
- a control gauge, to display the gas cylinder pressure value, with external metal protection against accidental blows;
- a general open/close knob, with visual indication via a colored plate of the system functioning status (ON-OFF);
- an overpressure valve, pre-calibrated to a value of twice the nominal operating pressure, able to guarantee adequate protection against any system anomalies;



- a calibrated orifice flowmeter enabling regulation of the gas flow supplied through a suitably graduated adjusting knob;
- a chrome-plated brass body, within which are assembled the components necessary to reduce pressure with a piston system;
- a plant terminal unit, connected after the first stage pressure reducer (optional accessory in substitution of the appropriate stopper), enables supply of a medical device for emergency resuscitation.

The first and second stage pressure reducers on the **MERCURY®** pressure regulator ensure that the medical gas supply pressure in the cylinder is reduced and maintained within the following values:

- 400 ± 50 kPa after the first stage, to enable gas supply through the terminal unit (optional accessory);
- 200 ± 10 kPa before the flowmeter.

TECHNICAL SPECIFICATIONS | MERCURY®

SIZES (LXWXH)	without outlet: 105x65x162 mm with AFNOR NF-S 90-116 outlet: 108x65x162 mm with UNI 9507 outlet: 119x65x162 mm
WEIGHT	without outlet: 1.600 Kg with AFNOR NF-S 90-116 outlet: 1.680 Kg with UNI 9507 outlet: 1.72 Kg
MAXIMUM OPERATING PRESSURE	200 bar
MANOMETER	end of scale 315 bar with indication of the cylinder charge status, even when the valve is closed
GAS CYLINDER COUPLING	25E (EN 629-1) • 17E (EN ISO 11116-1)
RECHARGE VALVE SUPPLY COUPLING	UNI 11144 • NF-E 29-656 • BS 341-3 • DIN 477-1 • ISO 5145
TERMINAL UNITS (OPTIONAL)	AFNOR NF-S 90-116 • UNI 9507 • BS 5682 • DIN 13260 • SS 875 24 30
TERMINAL UNITS SUPPLY PRESSURE (IF PRESENT)	400 kPa \pm 50 kPa (with cylinder pressure from 160 to 60 bar)
OUTLET HOSE CONNECTOR	\varnothing 6.5÷8.5 mm
FLOWMETER	standard full scale flow rate: 14 L/min. • 30 L/min. accuracy: \pm 10% of value read or \pm 0.5 L/min. if greater