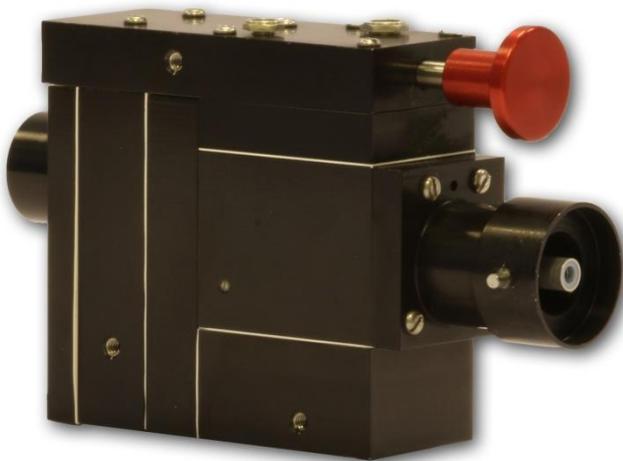


Life support ›

## Miniature Oxygen Demand Regulator (Type MR20F)



The miniaturized oxygen demand regulator Type MR20F controls the supply of oxygen to aircrew at the correct flow and pressure for breathing. The regulator is designed for use with a Type V12 mask and protects the user up to a maximum cabin altitude of 35,000 ft (10,668 m)

The regulator is a duplex unit that comprises a main regulator and a standby regulator integrated into a single assembly. The purpose of the standby regulator is to provide for a continuing supply of breathing oxygen in the event of failure of the main regulator. A changeover knob mounted uppermost on the regulator for easy access enables the user to select the main or standby facility. The regulator is miniaturized into a slim package to minimize inconvenience of movement.

### Key features

- Slim package
- Changeover knob between Main and Standby regulator
- Operates up to cabin altitude of 35,000 ft (10,668 m)

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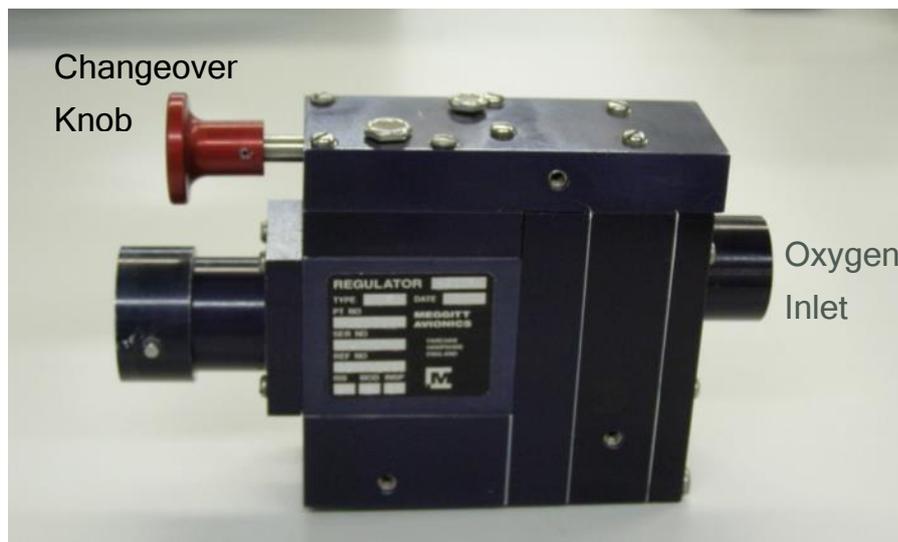
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## Operational overview

With the changeover knob set to the main (up) position, oxygen is supplied to one side of the main diaphragm direct, and indirectly through a restrictor to the other side of the main diaphragm. The flow through a second restrictor is also directed to the safety pressure valve. Prior to inhalation, (pilot valve closed), pressure both sides of the main diaphragm is equalized and the diaphragm is in contact with the main orifice valve plate thus covering all flow ports. This prevents any oxygen flow from the supply inlet to the breathing line to mask. A collar baffle incorporated by Mod. G.1859 avoids the regulator initiating free-flow.

With a mask connected to the regulator, inhalation reduces the pressure in the control chamber below the main sensing diaphragm. This causes the main sensing diaphragm to move downwards, against its leaf spring tension, opens the pilot valve and allows oxygen to flow from the main diaphragm cavity into the breathing line to mask. The resultant pressure differential across the main diaphragm causes it to lift away from the orifice place, uncovering the ports and allowing oxygen to flow into the breathing line to mask, satisfying the demand.



## Leading particulars

Miniaturized oxygen demand regulator Type MR20F	part no 5220000
Length (overall)	112.52 mm (4.43 in.)
Width (overall)	46.48 mm (1.83 in.)
Depth (body)	67.56 mm (2.66 in.)
Depth (overall)	68.10 mm (2.68 in.)
Weight	375 gram (13.25 oz)
Safety pressure with 100% oxygen	From sea level
Standby regulator	100% oxygen from sea level

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