

Medical Gas Line Pressure Regulator Duplex and Simplex Pressure Reducing Sets - 1

SPECIFICATION

Pressure Reducing Sets

The BeaconMedæS Pressure Reducing Set shall conform to EN ISO 7396-1 and NHS Health Technical Memorandum HTM02-01.

Duplex pressure reducing sets are required when dual pipeline systems are supplied by one medical air plant system. Surgical air is typically delivered at pressures of 800 kPa (8 bar) or 1100 kPa (11 bar) gauge for supply of the hospital surgical air systems. Sets shall be sized with nominal pipe sizes of 15 mm, 22 mm and 28 mm, sized for different flow rate capacities. All components shall be mounted on a powder coated steel back plate for simple installation.

The duplex pressure reducing set shall be positioned between the source equipment and distribution system. Duplex sets shall be wall mounted and positioned in the plant room along with the medical air plant. Reducing sets shall be sized for an inlet pressure of 800 kPa (8 bar) or 1100 kPa (11 bar) with an outlet pressure of 400 kPa (4 bar), suitable to supply the medical air pipeline system.

The entire system shall be 'duplexed' such that any single functional component failure will not affect the integrity of the medical compressed air supply.

When high pressure surgical air pipelines are installed Simplex pressure reducing sets shall be used to reduce the nominal air pressure from typically 800 kPa (8 bar) or 1100 kPa (11 bar) gauge to 710 kPa (7.1 bar). Simplex sets shall be mounted in the ceiling void and fixed via a suspended drop rod and brass munsen ring either side of the regulating unit (provided by others). Reducing sets shall be positioned at the entrance to the department, either just before or just after the AVSU.

Both duplex and simplex pressure reducing sets shall include non relieving regulators rated at 28 bar. For safety a brass relief valve set at 11 bar relieving (nominal 8 bar sets) or 5.5 bar relieving (nominal 4 bar sets) including a 1/4" thread BSP shall be installed after the regulator. A bottom entry connection pressure gauge, monitoring 0 to 11 bar shall be included to indicate the delivered pressure of the unit. All components shall be positioned between quarter turn ball valves with die cast nickel plated brass alloy body with nitrile seals, such that either line can be isolated for maintenance purposes.

All components shall be degreased for oxygen use, making the units suitable for medical air, surgical air and oxygen applications.

information available on request). Under this directive, the specified products are classified as Class IIb Medical Devices.

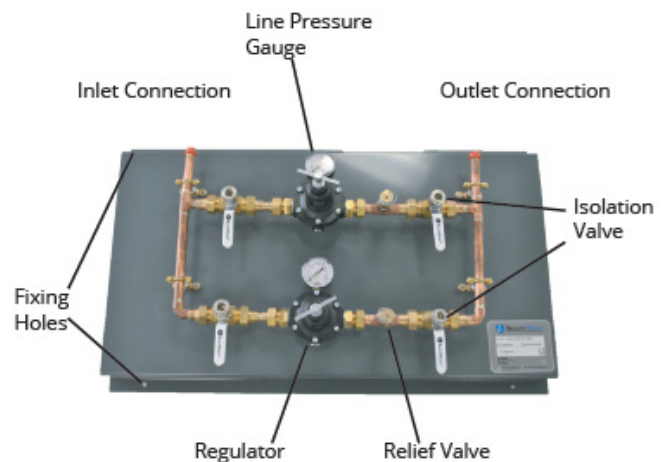
Duplex Units

Part Number	Inlet/Outlet Pressure	Flow (L/min)	Connection Sizes (mm)
4233402135	11/7 bar to 4 bar	1400	15
4233402137	11/7 bar to 4 bar	2400	22
4233402136	11 bar to 8 bar	2950	15
4233402138	11 bar to 8 bar	4000	22
4233402139	11 bar to 8 bar	5000	28

Simplex Units

Part Number	Inlet/Outlet Pressure	Flow (L/min)	Connection Sizes (mm)
4233402173	7 - 4 bar	1400	15
4233402174	7 - 4 bar	2400	22
4233402176	7 - 4 bar	3000	28
4233402172	11 - 7 bar	2950	15
4233402235	11 - 7 bar	4000	22
4233402175	11 - 7 bar	5000	28

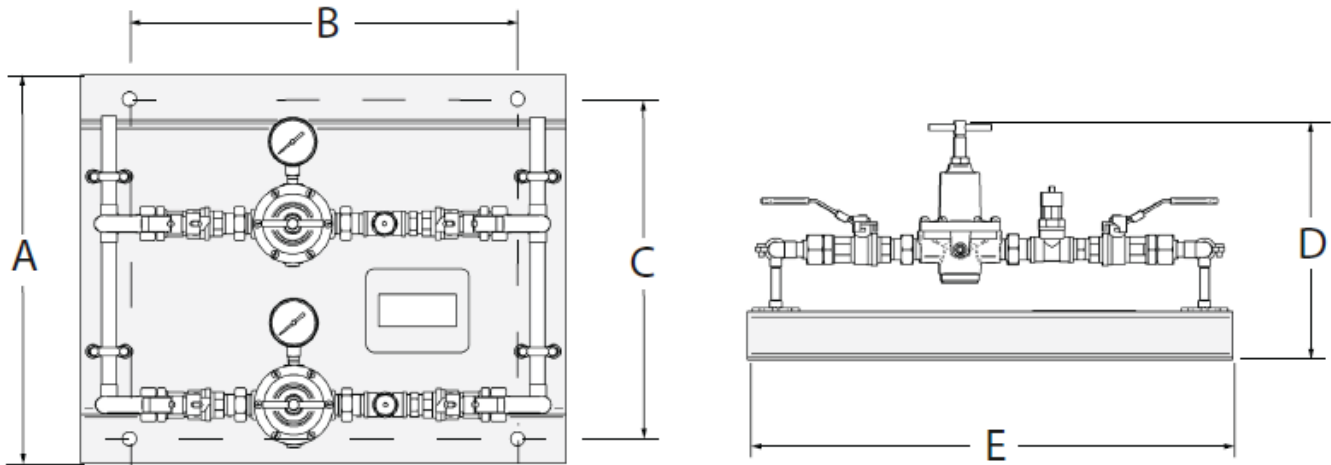
Duplex Layout



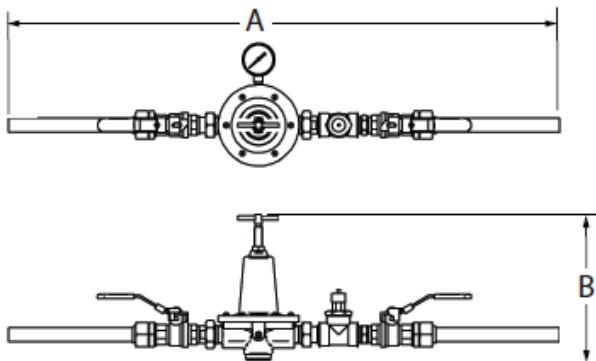
CE Marking

The standard range of Manifold header kit systems are 'CE' marked with approval from a notified body (more detailed information available on request).



Duplex Installation Diagram


Tailpipe	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)
15 mm	450	630	425	250	750
22 mm	450	630	425	300	750
28 mm	450	630	425	310	750

Simplex Installation Diagram


Tailpipe	A (mm)	E (mm)
15 mm	770	170
22mm	850	225
28 mm	915	225

Simplex Layout
