

## Duplex and Simplex Pressure Reducing Sets

### 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 800kPa (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 15mm, 22mm and 28mm, 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 800kPa (8 bar) or 1100 kPa (11 bar) with an outlet pressure of 400 kPa (4 bar), suitable to supply the medical air pipeline system. Reducing sets of 800 kPa (8 bar) output shall be available for use as a secondary surgical regulation 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 800kPa (8 bar) or 1100 kPa (11 bar) gauge to 710kPa (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.

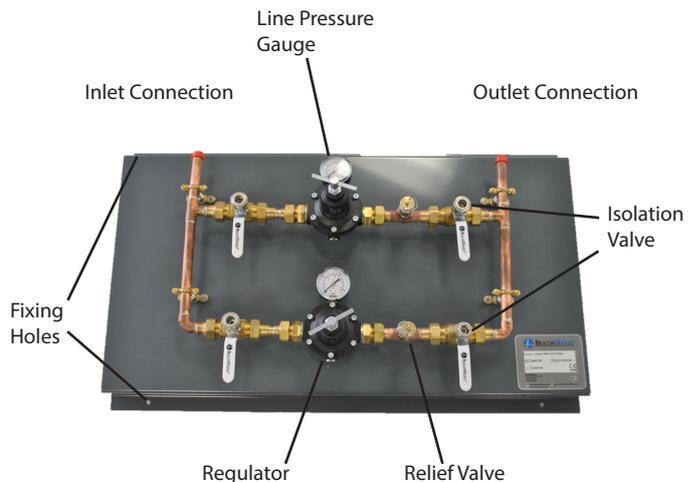
#### Duplex Specifications

Part No	Inlet/Outlet Pressure	Flow	Connection Sizes
2005701	11/7 bar to 4 bar	1400 L/min	15mm
2005704	11/7 bar to 4 bar	2400 L/min	22mm
2005702	11 bar to 8 bar	2950 L/min	15mm
2005705	11 bar to 8 bar	4000 L/min	22mm
2005708	11 bar to 8 bar	5000 L/min	28mm

#### Simplex Specifications

Part No	Inlet/Outlet Pressure	Flow	Connection Sizes
3269636	7 - 4 bar	1400 L/min	15mm
3269638	7 - 4 bar	2400 L/min	22mm
3269640	7 - 4 bar	3000 L/min	28mm
3269635	11 - 7 bar	2950 L/min	15mm
3269637	11 - 7 bar	4000 L/min	22mm
3269639	11 - 7 bar	5000 L/min	28mm

#### Duplex Layout

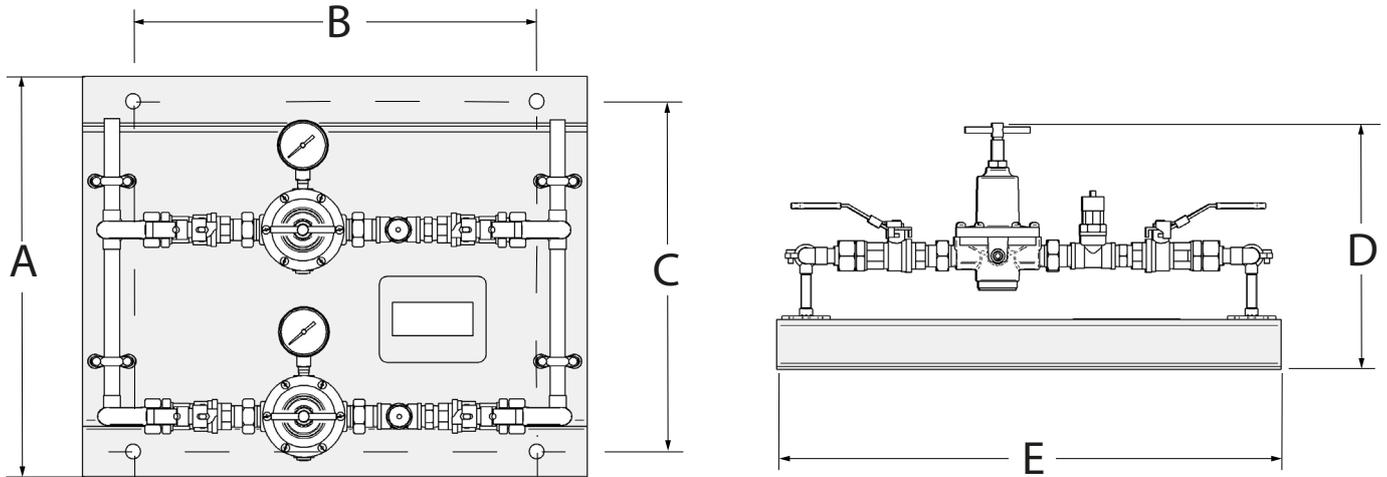


#### CE Marking

The standard range of BeaconMedæS Pressure Reducing Sets are 'CE' marked under the Medical Devices Directive 93/42/EEC with approval from notified body no. 0088 (Lloyd's Register Quality Assurance). Under this directive, the specified products are classified as Class IIa Medical Devices.

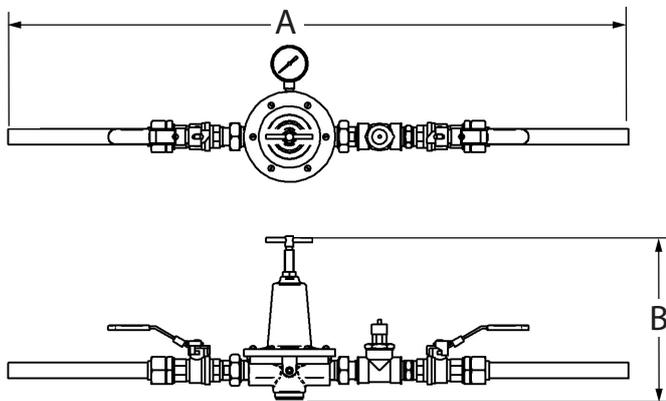


### Duplex Installation Diagram



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

### Simplex Installation Diagram



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

### Simplex Layout

