







4-Tube Anesthetic Rotameters with AHD

FUNCTION

The Flow Head incorporates the following functions:

- Gas indexed pneumatic inlet ports
- N₂O gas flow cut off in the event of oxygen failure
- Flow control needle valves
- N₂O/O₂ flow ratio hypoxic mixture prevention proportioning system
- Color coded, marked specific labels for flow tubes and flow control valves
- Gas mixing chamber, mixed gas outlet

GENERAL OPERATION

The Flow Head integrates O_2 and N_2O (the N_2O is optional).

The $\rm O_2$ Air and $\rm N_2O$ needle valves gas supply pressure is externally regulated to 400Kpa \pm 10Kpa as per standard.

The N $_2$ O channel incorporates a pressure cut-off valve. The O $_2$ supply pressure in the circuit controls the output pressure of the pressure cut-off valve. Under all conditions of operation, the N $_2$ O flow shall reach zero before the O $_2$ flow. In this flow head the N $_2$ O pressure switch shall cut off the flow of N $_2$ O before the O $_2$ pressure drops below 50 ± 15 Kpa.

PERFORMANCE STANDARDS

Standard flow conditions defined at 20°C , 101.3Kpa, (760mmHg)

Conforms to ISO 5358 requirements

Flow Tubes

- Flow Tubes are calibrated for discharge into an ambient atmosphere of 101.3Kpa at an operating temperature of 20°C.
- Each flow tube shall be calibrated to accuracy of $\pm 10\%$ of reading, or better.
- Flow tubes withstand 690Kpa internal pressure without breaking.

Flow Control Valves

- Anti-clockwise rotation shall cause an increase in flow.
- Flow control knob are color coded and touch coded. Smooth and precise rotation ensures accurate flow setting.

FLOW CAPACITY OPTIONS

Gas	Oxygen				Nitrous Oxide			
Min. Flow LPM	1	1.2	1.5	2	1	1.2	1.5	2
Max. Flow LPM	10	12	15	20	10	12	15	20

PROPORTIONING SYSTEM %OXYGEN IN MIXED GAS TOTAL FLOW

Total Flow Below 1 L/min.	Total Flow 1 L/min. & above
Min. 21%	21% to 33%

PRESSURE CUT-OFF VALVE

 N_2O regulated pressure shall drop with falling of O_2 supply pressure and shall prograssively reduce flow of this gas while maintaining the proportion of O_2 (22% min.) until O_2 pressure falls to 50 ± 15 Kpa at which point the supply of N_2O shall be cut off.

The only means of restoring N_2O flow after O_2 supply failure (O_2 pressure below 50 ± 15 Kpa) shall be the restoration of O_2 pressure.

ASSEMBLY

Leakage from atmosphere shall not exceed 10Sml/min. when a vacuum of 80cm H₂0 is applied to all internal.

MATERIALS

All wetted material are compatible with all gases used and all anaesthetic agents.

Equipment compiles with RoHS requirements.



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