# **ANAESTHETIC ROTAMETERS UNITS WITH ANTI-HYPOXIA**



### Description

Anaesthetic rotameters are used for measuring the rate of flow of gases used for anaesthesia. The gases measured are oxygen, nitrous oxide and air.

Special coated tubes are also available where the tubes are treated both inside & outside with antistatic coating for easy dissipation of static charge. The back panel is made of fluorescent material for easy visibility in low light condition. The tubes conform to the relevant international standard for safety.

The Flowmeters are equipped with flow control knobs. These knobs are color-coded and also touch coded in conformity with international standard for easy identification. The oxygen knob has a distinctive profile as required. Other knobs are serrated, round and smaller than oxygen knob in diameter.

Anaesthetic rotameters with anti-hypoxia system can be of 3-tube, 5-tube or 6-tube design. In 3-tube design, there is no low-flow tube provided. In 5-tube design, only oxygen and nitrous oxide have low-flow tubes; air is not provided with low-flow tube.

The anti-hypoxia system ensures that a minimum of 25% Oxygen always flows in the mixed gas output so as to ensure patient safety.

#### SPECIFICATION

1	Oxygen Inlet	7/16" X 20T WF male thread, from rear bottom		
2	N₂O Inlet	1/2" X 20T WF male thread, from rear bottom		
3	Air inlet	¼" BSP male thread, from rear bottom		
4	Mixed gas outlet	At top right, through 23mm taper as per ISO 5356-1		
5	Control Knob Oxygen	White, with special profile as per ISO 5358		
6	Control Knob N₂O	Blue serrated, serration depth <1mm, knob dia lower than Oxygen knob dia.		

7	Air	Black / Gray serrated, serration depth <1mm, knob dia lower than Oxygen knob dia.
8	Working pressure (max)	420 kPa (both $N_2$ 0 & $O_2$ )
9	Float Colour	Red with silver dot
10	Markings/identification	Float mark on tubes & other markings as per ISO 5358
11	Mounting	Back bar mounting, studs & nuts provided.
12	Housing	Aluminium frame with clear acrylic front & light coloured/fluorescent background.
13	N <sub>2</sub> O flow opening/ closing	Opening at 0.4-0.61/min Oxygen flow, while increasing. Closing at 0.2- 0.31/min Oxygen flow, while decreasing.
14	Oxygen/N₂O ratio	1:3 $\pm$ 5% at all settings after $\mbox{N}_{\mbox{\tiny 2}}\mbox{O}$ flow opening.
15	Housing	Aluminium frame withclear acrylic front & light coloured background.
16.	N₂O flow opening/ closing	Opening at 0.4-0.61/min Oxygen flow, while increasing. Closing at 0.2- 0.31/min Oxygen flow, while decreasing.
17	Oxygen/N <sub>2</sub> O ration	$1:3\pm5\%$ at all settings after $N_2O$ flow opening.
18	Flowmeters	Details given separate table

## FLOWMETERS

Gas	Scale	Nominal Scale Length (mm)	Tube Outer Diameter (mm)	Used in			
Oxygen	1.0 – 1 L/M	230	10	5 & 6 - tube model			
Охудоп	1.0 – 10L/M	230	10	5 & 6 - tube model			
Air	0.1 – 1 L/M	230	15	All			
All	1.0 – 15L/M	230	15	6-tube model only			
N <sub>2</sub> O	0.1 – 1 L/M	230	10	5 & 6 - tube model			
N <sub>2</sub> U	1.0 – 12L/M	230	15	AII			

#### Anti-hypoxia unit

The controller is fixed on the rear of the rotameters assembly. The entire assembly can be straightway mounted on your anaesthesia machine. The controller unit can also be mounted separately if desired in which case extra length of tubes can be provided.

- Conforms to IS 11378:2002, ISO 5358:1992
- High Accuracy: ± 2% of FS or 10% of indicated point which ever is lower.
- The Flowmeters are calibrated at 20C and 1013 mbar abs.
- Anti-hypoxia system ensures a minimum flow of 25% Oxygen in the mixed gas output
- Fine adjustment needle valves ensure proper control over the outgoing gases.
- Range of options available to meet specific needs
- Customisation as per OEM requirements possible



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