microdial flowmeter

a smoother transition to room air

Developed in partnership with neonatalogists, Microdial Flowmeters deliver incredibly accurate and repeatable micro step changes in oxygen flow. These steps enable the smoothest transition to air when weaning infants from a dependency to oxygen therapy.

Thanks to a built in precision pressure regulator, you will have confidence the oxygen flow remains consistent, irrespective of varying supply pressure.

- Oxygen flow rates as low as 10 cc per minute (0.01 l/min)
- Supply pressure independent
- 5 micron internal filtration assures permanent accuracy
- Accurate, repeatable microflow™ control
- Clean, safe and durable

Technical Description

Medical oxygen is routinely provided to premature babies to compensate for hypoxemia, often caused by the under development of their lungs at the point of birth. Extremely premature babies may suffer from Respiratory Distress Syndrome (RDS) and ventilation may be employed as a lifesaving intervention, however the use of mechanical ventilation can lead to chronic lung disease, often referred to as bronchopulmonary dysplasia (BPD).

Babies with BPD may require weaning from oxygen dependency over several weeks or months. Effective weaning requires the controlled reduction of FiO2 levels.

The BPR Medical range of Microdial Flowmeters provides a simple and cost effective means of accurately controlling the flow of oxygen to neonates requiring extremely low flows (< 0.1 l/min) of medical oxygen.

Flowmeters are connected to a low pressure medical oxygen source. The user may select one of eleven predetermined flow settings to provide the required level of oxygen for the neonate concerned. Each model provides a different range of flow settings for different circumstances.

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SPECIFICATION

Gas Compatibility	Oxygen	
Nominal Supply Pressure [1]	345 kPa (50 psi) to 500 kPa (73 psi)	
Maximum Supply Pressure Range [1]	280 kPa (40 psi) to 1,000 kPa (145 psi)	
Filteration (sintered bronze)	40 µm nominal first stage, 5 µm nominal second stage	
Volumetric Flow Accuracy	≥1 l/min: +/- 10 % of reading	
	<1 l/min: +/- 20 % of reading	
Effects of Accuracy	Inlet Pressure:	Less than 6 % of reading for a ±100 kPa change in nominal inlet pressure. Less than 15 % change in reading in the range 280 kPa to 580 kPa.
	Temperature:	±7 % in the range 20 °C ±20 °C
	Back Pressure:	Less than 1 % of reading up to 5 kPa back pressure
Service Interval	2 years after date of manufacture (see device label)	
Inlet Connection	To suit the application; contact your representative	
Outlet Connection (model dependent)	EN 13544-2, 6 mm nominal tubing connection nominal	
	Male DISS, 9/16” UNF	
Environmental Limits for Transport, Storage and Operation	Temperature: -20 °C (-4 °F) to 60 °C (140 °F)	
	Humidity: 0 to 100 % RH non-condensing	
Regulatory	EC: MDD Class IIa Medical Device USA: FDA Class 1 Medical Device; 510(k) exempt Canada: Health Canada licence ref. 83602 Australia: Class IIa, ARTG Indentifier 177170 GMDN Code and Term: 37132 - Flowmeter, oxygen therapy	


BS 5682 inlet with barb outlet


BS 5682 inlet with DISS outlet


AS 2902 inlet with barb outlet

[1] Nominal Supply Pressure is the normal pressure expected at the inlet to the device, whereas the Maximum Supply Pressure Range is the minimum and maximum allowable pressure with which the device may be used. Volumetric Flow Accuracy applies when the supply pressure within the Nominal Supply Pressure range.

volumetric flow rates in standard litres per minute

Dial Position	off	1	2	3	4	5	6	7	8	9	10	11
Range A	0	0.02	0.03	0.05	0.08	0.12	0.20	0.30	0.50	0.75	1.0	3.0
Range E	0	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09	0.10	1.0

bpr MEDICAL GAS CONTROL

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