

# ISA™ OR+™ Multigas Monitoring

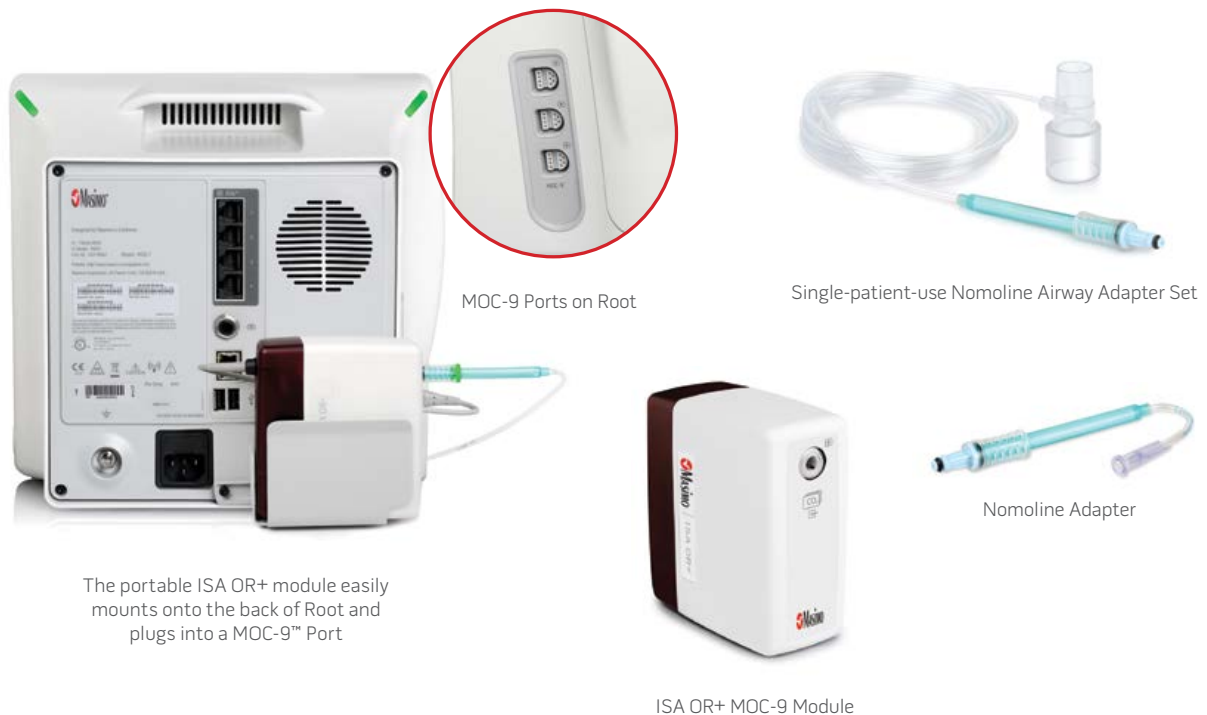
Supporting Anaesthetic Agent and Ventilation Management



The ISA OR+ sidestream multigas analyser with the Masimo Root® patient monitoring and connectivity platform provides the following features and benefits:

- > During general anaesthesia, the ISA OR+ monitors the inhaled and exhaled concentration of five anaesthetic gas agents (Sevoflurane, Isoflurane, Halothane, Desflurane, Enflurane), carbon dioxide (CO<sub>2</sub>), nitrous oxide (N<sub>2</sub>O), and oxygen (O<sub>2</sub>), in addition to respiration rate
- > Requires only 50 ml sampling flow to support monitoring
- > Time-saving in critical situations with virtually no warm-up time and full accuracy performance in less than 20 seconds
- > Automatic anaesthetic agent identification
- > Supports monitoring patients with high respiration rates, up to 150 bpm
- > Low-power consumption and automatic temperature and pressure compensation
- > Provides minimal alveolar concentration (MAC) calculated from the measured anaesthetic agents and N<sub>2</sub>O\*
- > Appropriate for monitoring adult, paediatric, or infant patients in a range of clinical environments including the operating theatre and intensive care unit
- > Compatible with Masimo's Nomoline™ Adapter and the Nomoline Airway Adapter Set to interface with endotracheal tubing

## COMPONENTS



The portable ISA OR+ module easily mounts onto the back of Root and plugs into a MOC-9™ Port

MOC-9 Ports on Root

Single-patient-use Nomoline Airway Adapter Set

Nomoline Adapter

ISA OR+ MOC-9 Module

When technology modules are connected with Root, multiple additional parameters are available including Masimo SET® pulse oximetry, noninvasive and continuous haemoglobin (SpHb®), PVI®, SedLine® brain function monitoring, and O3™ Regional Oximetry (not available for sale in the U.S.)

## PERFORMANCE AND SPECIFICATIONS

GENERAL		GAS ANALYSER	
Weight	< 420 g	Automatic compensation	Pressure, temperature, and broadening effects on CO <sub>2</sub>
Size	49 x 90 x 100 mm (1.9 x 3.5 x 3.9 inches)	Warm-up time	< 20 sec
Power Supply	4.5 to 5.5 VDC < 2.0 W (normal op.)	ISA sampling flow rate	50 ± 10 ml/min
ENVIRONMENTAL		Fulfills the requirements of EN ISO 80601-2-55:2011.	
Operating temperature	.5 to 50 °C (41 to 122 °F)	Accuracy during standard conditions:	
Storage	-40 to 70 °C (-40 to 158 °F)		
Operating humidity	< 4 kPa H <sub>2</sub> O (non-condensing) (95 %RH at 30 °C)		
Operating atmospheric pressure	.525 – 1200 hPa (< 5211 m)		
PATIENT CONNECTIONS			
Nomoline	See separate Nomoline information for full details of available options		
		RANGE	
		CO <sub>2</sub>	0 – 15 vol% ± (0.2 vol% + 2% of reading)
		N <sub>2</sub> O	0 – 100 vol% ± (2 vol% + 2% of reading)
		HAL, ISO, ENF	0 – 8 vol% ± (0.15 vol% + 5% of reading)
		SEV	0 – 10 vol% ± (0.15 vol% + 5% of reading)
		DES	0 – 22 vol% ± (0.15 vol% + 5% of reading)
		O <sub>2</sub>	0 – 100 vol% ± (1 vol% + 2% of reading)
		Rise time	CO <sub>2</sub> ≤ 250 ms, N <sub>2</sub> O, Agents ≤ 350 ms, O <sub>2</sub> ≤ 450 ms
		Total system response time	< 3 sec
		Breath detect	Adaptive threshold, minimum 1 vol% CO <sub>2</sub> change
		Respiratory rate	0 – 150 bpm ± 1 bpm
		CERTIFICATIONS	
		CE Marked according to the 93/42/EEC Medical Device Directive	
		Data subject to change without notice	

\* Altitude, patient age and other individual factors are not considered in the MAC calculation.

**Caution: Federal law restricts this device to sale by or on the order of a physician.**

**For professional use. See instructions for use for full prescribing information, including indications, contraindications, warnings, precautions, and adverse events.**