

# Scio Four Family Gas Measurement Modules

O<sub>2</sub>, CO<sub>2</sub>, N<sub>2</sub>O and volatile anaesthetic agents at a glance: Scio Four Family can be used with an Infinity monitor anywhere you need it.



Dräger. Technology for Life®

### **Benefits**

#### Accurate real-time gas measurement

Whether inspiratory or expiratory values for O<sub>2</sub>, CO<sub>2</sub>, N<sub>2</sub>O and anaesthetic agents: Dräger Scio Four Family delivers precise and reliable values which are transferred to a Dräger Infinity monitor and displayed in real time.

#### Scalable solutions for every application

The Scio Four Family consists of four different versions: options include automatic anaesthetic agent identification as well as agent mixture measurement and integrated  $O_2$  measurement (see technical data on page 5).

The modular design of the Scio Four Family makes it both flexible and scalable. If you have an integrated  $O_2$  measurement in your Fabius device, a gas measurement module without oxygen sensor will meet your needs. This means you get just the system you need – no more, no less.

#### Enhanced intraoperative patient safety

The Scio Four Family does more than just measure gas concentrations in the breathing circuit. In combination with Dräger Infinity monitors, MAC values for anaesthetic agents are displayed, helping you to avoid underand overdosage. This means you can maintain optimal gas concentrations while making sure that ventilation is adequate.

You also have the option of measuring inspiratory and expiratory  $O_2$  concentrations using a paramagnetic oxygen sensor. This consumption-free measurement method – unlike electrochemical sensors – results in reduced costs for you.

#### Waterlock® 2: enhanced contamination protection

The Scio Four Family comes equipped with the WaterLock 2 water trap. The 2 µm pores of its dual hydrophobic membrane design let gases pass freely while effectively preventing microbial contamination and condensation. Even under challenging conditions such as minimal flow anaesthesia, where heavy condensation can be a problem, accurate capnography is assured. Sample and purge gases remain free from condensation. Highly economical, the WaterLock 2 can be emptied at any time and only requires monthly replacement.

#### Made for Infinity® and beyond

The Scio Four Family is specially designed for use with Dräger Infinity monitoring systems<sup>\*</sup>. Just plug in the gas measurement module and your Infinity monitor will display all the values generated. Your Dräger representative can help you determine which Dräger Infinity monitors are best for you.

\* e.g. Delta, Delta XL and Vista XL (not available in all countries)

## System components



#### Dräger Fabius® GS premium

The Dräger Fabius<sup>®</sup> GS premium is an anaesthesia workstation that is simple to use, highly efficient and ready for the future. It features a solid design with modular architecture plus a wide range of ventilation capabilities. Your Fabius<sup>®</sup> GS premium can be customised to suit your exact needs.

#### **Dräger Fabius® Tiro**

Get the most out of even the smallest spaces with a compact yet fully featured anaesthesia solution designed for use in a variety of specialised environments.



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#### Infinity<sup>®</sup> Delta XL

With a 12.2" (310 mm) colour screen, the Delta XL monitor can continuously monitor patients both at the bedside and during transport – thus eliminating the need for separate transport monitors. Supports all patient types and acuity levels throughout the hospital.



#### Infinity<sup>®</sup> Vista XL

Offering true Dräger quality, the Vista XL provides the capabilities you need to monitor adult, paediatric and neonatal patients. It's easy to learn, easy to use and can function as a stand-alone monitor or a networked device to maximise your connection to vital patient information.

## Accessories



#### WaterLock<sup>®</sup> 2

Perfect protection for precise gas measurement. Dräger WaterLock<sup>®</sup> 2 safely stops water from getting into the multi-gas sensor. The membrane technology developed by Dräger for the WaterLock<sup>®</sup> 2 stops any bacteria or germs from getting into the gas measurement system. The WaterLock<sup>®</sup> 2 is also safe and simple to empty – with a further advantage in handling and hygiene.

## **Related Products**



#### **Vamos Family**

The expandable Vamos Family lets you choose your gas monitoring solution today while keeping your options open for the future. In addition to  $CO_2$  and  $SpO_2$  your monitoring capabilities can be expanded to include all five common anaesthetic agents and  $N_2O$ .

## Technical Data

#### **Operational characteristics**

Weight	2.9 kg (6.4 lbs) w/o O₂ sensor	
	3.2 kg (7.0 lbs) w O <sub>2</sub> sensor	
Dimensions (H x W x D)	11.5 cm x 19.0 cm x 27.0 cm (4.8 in x 7.5 in x 10.5 in)	
Power supply	100 to 240 V ~ 50/60 Hz	
Device noise emission	≤45 dB(A)	
Device interfaces	1x RS 232 (MEDIBUS protocol)	

#### Ambient conditions

Temperature	10 to 40°C (50 to 104°F)
Ambient pressure	700 to 1,100 hPa (10.2 to 15.9 psi)
	Equivalent to 3,000 m (9,843 ft) height

#### Measurement specification

O <sub>2</sub>	Range		0 to 100 vol.%
	Accuracy		±(2.5 vol.%
			+ 2.5% rel.)
	Rise time (t <sub>10/90</sub> )		<500 ms
CO <sub>2</sub>	Range		0 to 10 vol.%
	Accuracy		±(0.43 vol.% + 8% rel.)
	Rise time (t <sub>10/90</sub> )		<300 ms
N <sub>2</sub> O	Range		0 to 100 vol.%
	Accuracy		±(2 vol.% + 8% rel.)
	Rise time (t <sub>10/90</sub> )		<300 ms
Anaesthetic agents	Range		0 to 8.5 vol.% (isoflurane and halothane)
			0 to 10 vol.% (sevoflurane and enflurane)
			0 to 20 vol.% (desflurane)
	Accuracy		±(0.20 vol.% + 15% rel.)
	Rise time (t <sub>10/90</sub> )		<350 ms
			<450 ms (halothane)
Respiratory rate	Range		0 to 100/min
	Accuracy		0 to 60/min: ±1/min
			>60/min: not specified
Device classification			
Protection class (IEC 60601-1)		Class 1, type BF, continuous operation	
Ingress of liquids and particulate matte (IEC60601-1)	er	IP21	
Classification in accordance with EU		lla	
Directive 93/42/EEC Appendix IX			
UMDNS code / GMDN code		17-445 / 41688	
Device name	Automatic agent ID		Integrated O <sub>2</sub> measurement
Scio Four Oxi plus	yes		yes
Scio Four plus	yes		no
Scio Four Oxi	no		yes
Scio Four	no		no

Notes

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As of August 2015 Dräger Medical GmbH changes to Drägerwerk AG & Co. KGaA

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