Solutions for transcutaneous monitoring

About Radiometer

Radiometer is a leading provider of technologically advanced acute care solutions that simplify and automate all phases of acute care testing.

By providing fast and accurate acute diagnostic results, healthcare professionals can make immediate and well-informed decisions that enable them to improve patient care and optimize patient flow in all acute care settings. Radiometer offers a holistic solution approach that combines process improvement, products and services to promote more efficient testing, at a lower cost, for better outcomes.
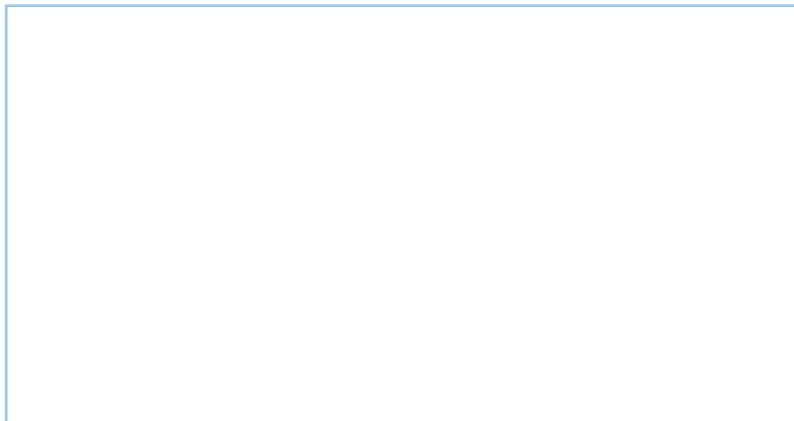
What is transcutaneous monitoring?

Transcutaneous monitoring is an innovative and highly accurate technology that provides continuous, non-invasive monitoring of oxygen and carbon dioxide. Its power and appeal derive from a simple principle: through a non-invasive sensor applied to the body, blood gases diffusing through the skin can be detected and estimated. Radiometer offers a complete range of TCM monitors that encompass many parameters, such as $tcpCO_2$, $tcpO_2$, SpO_2 and pulse rate. TCM monitors are excellent for use as a trending tool. They accurately match the patient's current status. This allows healthcare professionals to take immediate action when needed. As a result patient safety and comfort are improved.

It's ideal for neonatal intensive care units (NICU) to monitor pre-term babies, monitoring and adjusting non-invasive ventilation (NIV) treatments and in sleep laboratories to track and diagnose sleep disorders. It's also extremely well suited for the assessment of chronic wounds and vascular diseases.

Your contact at Radiometer

Contents

Continuous monitoring of blood gas trends

The right configuration for your practice

Radiometer's TCM monitors provide reliable, continuous and non-invasive transcutaneous pCO_2, pO_2 and SpO_2 information with advanced features that optimize monitoring of neonatal, pediatric and adult patients.

Using the same base station, monitors of the TCM product line can be individually adapted into 3 specific configurations by adding different modules to suit specific requirements (parameters, sensors and applications).

These 3 configurations all feature:

High performance
- SmartCal function: automatic calibration offering permanent readiness for measurement
- SmartHeat technology: no waiting time to obtain first values
- Clear real-time display of measured parameters & trends ensuring fast and immediate
  clinical intervention to critical changes

Ease of use
- Simple and intuitive operation via large color touchscreen
- User-friendly interface
- Explanatory video tutorials

Work routine optimization
- Automatic linking of patient ID to monitoring results
- Built-in battery broadens device portability range
- Data can be exported via cable or USB memory stick for
  detailed analysis
- High flexibility and easy connection to a broad range of
  devices and hospital systems

TCM CombiM Monitor

Mainly used in neonatal and pediatric intensive care units.

TCM TOSCA Monitor

Mainly used in respiratory care and sleep medicine.

TCM400 Monitor

Mainly used for enhanced vascular diagnostic.

TCM CombiM Monitor

The TCM CombiM configuration is designed specifically for **neonatal and pediatric intensive care** needs.

tc Sensor 84

- Combined **tc$p$O$_2$** and **tc$p$CO$_2$** measurements in a single sensor
- Discreet design: low profile (only 8mm) and lightweight to increase patient comfort
- Gold plated membrane protection for optimal robustness and performance

tc Sensor 54

- Dedicated to measuring **tc$p$CO$_2$**
- Gold plated membrane protection for optimal robustness and performance

tc Sensor 84   tc Sensor 54

TCM TOSCA Monitor

The TCM TOSCA monitor continuously tracks ventilation status and oxygen saturation in pediatric and adult patient settings, such as **respiratory care and sleep medicine**.

- Integrated pulse oximetry Masimo SET® technology delivers accurate oxygen saturation monitoring, even at low perfusion
- Enhanced overnight observation through connection to polysomnographs

tc Sensor 92

- Combined **tc$p$CO$_2$, SpO$_2$** and **pulse rate** measurements in a single sensor
- Gold plated membrane protection for optimal robustness and performance
- Fast sensor response time ensures early detection of hypo- and hyperoxia as well as hypo- and hypercapnia

tc Sensor 92

TCM400 Monitor

The TCM400 monitor provides up to six simultaneous measurements of transcutaneous oxygen tension (tc$p$O$_2$). Together, these measurements allow for an accurate mapping of the target site and thus a better understanding of patients conditions and their proposed treatment plan.

The TCM400 monitor is a valuable tool for the assessment and the diagnostic of:

- Critical limb ischemia
- Wound care treatment
- Optimal amputation level
- Post-surgery wound healing evaluation
- Hyperbaric oxygen treatment
- Free flap survival

tc Sensor E5250

- Dedicated to measuring **tc$p$O$_2$**
- Extremely low oxygen consumption for highly accurate and reliable measurements even at sites with poor perfusion
- Very low drift

tc Sensor E5250

Accessories

To make the best usage of Radiometer transcutaneous monitors, a complete selection of device specific accessories is available.

Measurement preparation

Fixation rings and ear clips

Variety of fixation options (adhesive rings, 20 and 32mm rings, ear clips) to allow optimal holding of sensor on the measurement site.

Contact gel

Seals the environment of the measurement site and optimizes diffusion of gas from the tissue to the sensor.

Monitor and sensors maintenance

Membraning kit

Regular membrane replacement guarantees measurement precision Each sensor has its own specific membraning kit.

Electrolyte solution

Used during remembraning of sensors to seal the sensor's head Each sensor has its own specific electrolyte solution.

Calibration gas

Standardized mix of gas used to calibrate sensors before every measurement to ensure precise measurement over time.

Connectivity

For optimal integration in the hospital environment, Radiometer's TCM monitors can be connected and interact with most of today's patient monitoring systems and polysomnographs currently available on the market. Connection to hospital information systems (HIS/EMR) is also possible.

Patient Monitoring Systems

FUKUDA DENSHI

Dräger *

PHILIPS

NIHON KOHDEN

GE **

mindray
healthcare within reach

SPACELABS
HEALTHCARE

PHILIPS
RESPIRONICS

natus
neurology

NIHON KOHDEN

capsule™

Polysomnographs

Electronic Medical Records

* Availability for selected Dräger devices
** Availability Q1 2015

Mobility

GCX roll stand

To increase mobility and enhance usability, TCM monitors can now be mounted on a dedicated roll stand. It therefore delivers a safe and effortless solution to transport monitors from one patient bedside to another, from one examination room to another.

GCX mounting plate

- Fixed to the bottom of the monitor
- Universal adaptor
- Allows compatibility to all GCX mounting solutions

Trolley bag

An efficient way to carry the TCM monitors around. Inside foam specifically designed to host and protect the TCM monitor and its accessories.

AQURE TC ResQ Software

AQURE TC ResQ is an innovative software solution that makes it fast and easy access to the data from your TCM monitor. It lets you streamline and enhance workflow efficiencies in multiple clinical settings such as **sleep studies and respiratory.**

Focus on interpretation

• Simple & intuitive user interface for an accelerated learning curve
• The AQURE TC ResQ software automatically :
  - Detects and counts physiological events,
  - Provides useful & comprehensive statistics for more accurate interpretation
    and treatment
• Quickly generate and print or email concise reports

 A demo version is available at : http://aqure.radiometer.com/license

Streamline data management to dedicate more time to your patients

TCM CombiM Monitor

Product references

Key references

TCM base unit	391-880
CombiM module	903-111
Sensor 84 (tc$p$CO$_2$/tc$p$O$_2$)	945-737
Sensor 54 (tc$p$CO$_2$)	945-736

Accessories

For sensor 84

Membraning kit	(12 preparators, 1 electrolyte vial of 10 ml)	905-871
Electrolyte 84	(4 vials of 10 ml)	905-869

For sensor 54

Membraning kit	(12 preparators, 1 electrolyte vial of 10 ml)	905-868
Electrolyte 54	(4 vials of 10 ml)	905-866
Ear Clips	(40 clips, 1 contact gel vial)	5601300

Other

Fixation kit: (dispenser incl. 1 roll of 60 rings, 1 contact gel vial)	
- 20mm rings	905-873
- 32mm rings	5601500
Adhesive rings 20mm (incl. 1 roll of 250 rings, 1 contact gel vial)	905-872
Contact gel: 1 unit (10 ml)	0603210
Cable fixation clips (5 pcs.)	5601010
Calibration gas (1 cylinder)	962-187
GCX roll stand:	
- Mounting plate	RA-0002-17
- Roll stand	RS-0025-02C
- Printer plate	RA-0002-10
Trolley bag	985-295

Cables - for connection to patient monitoring systems

Serial	636-649
Analog	636-650
VueLink for Philips	636-651

TCM TOSCA Monitor

Product references

Key references

TCM4 base unit	391-880
TOSCA module	903-044
Sensor 92 (tc$p$CO$_2$ / SpO$_2$)	5621000

Accessories

Membraning kit for Sensor 92 (12 preparators, 1 electrolyte vial)	5601100
Electrolyte 92 (1 vial of 10 ml)	5601110
Fixation kit: (dispenser incl. 1 roll of 60 rings, 1 contact gel vial)	
- 20mm rings	905-873
- 32mm rings	5601500
Adhesive rings 20mm (incl. 1 roll of 250 rings, 1 contact gel vial)	905-872
Ear Clips (40 clips, 1 contact gel vial)	5601300
Contact gel: 1 unit (10 ml)	0603210
Cable fixation clips (5 pcs.)	5601010
Calibration gas (1 cylinder)	962-187
GCX roll stand:	
- Mounting plate	RA-0002-17
- Roll stand	RS-0025-02C
- Printer plate	RA-0002-10
Trolley bag	985-295

Cables - for connection to polysomnographs

Embla cable	903-182
Embletta Gold cable	903-181
Embla MDrive® interface cable	903-335
Alice interface cable (INT version)	903-180
Alice cable (DE version)	903-340

Cables - for connection to patient monitoring systems

Serial	636-649
Analog	636-650
VueLink for Philips	636-651
Software AQURE TC ResQ	903-366

TCM400 Monitor

Product references

Key references

TCM4 base unit	391-880
TCM400 Module	902-564
Sensor E5250 (tc$p$O$_2$)	945-605

Accessories

Membraning kit for Sensor E5250 (12 pcs.)	904-308
Fixation kit for Sensor E5250 (100 pcs.)	904-891
Blind module (1 pcs.)	902-718
Battery	431-018
Color code kit for sensors	940-844
Contact gel (4 vials of 20 ml)	905-689
Calibration gas (1 cylinder)	962-187
GCX roll stand:	
- Mounting plate	RA-0002-17
- Roll stand	RS-0025-02C
- Printer plate	RA-0002-10
Trolley bag	985-295

Accessories for use in hyperbaric chamber

Unassembled connector kit	905-660
Connector kit for ETC hyperbaric chamber	905-688
Passthrough cable	905-751

Cables

Serial output cable for PC connection	636-649
3 m extension cable for Sensor E5250	617-853
6 m extension cable for Sensor E5250	617-864

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