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Additional information

Patient safety
The instruments comply with IEC 60601-1:1988, IEC 60601-1-2:2001, IEC 60601-2-23:1999.
The following test house has approved the instrument: CSA in Canada according to CAN/CSA-C22.2 No. 601.1-M90, 601.1S1-94, 601.1B-98, and UL std. No. 601.2.23-98 and 60601-1.

Type BF equipment (body floating) 

CE
This product complies with the requirements of the Medical Device Directive 93/42/EEC June 1993 (Class IIa).

EMC
This product complies with the requirements of the harmonized standard EN60601-1-2:2001, “Collateral standard: Electromagnetic compatibility – requirements and test”.

EMC emission
EN55011:1998, level A.

EMC immunity
As stated in EN60601-1-2:2001, the immunity has been tested according to the IEC 61000 series.
(See also IEC 60601-2-23:1999).

Performance
This product complies with the IEC 60601-2-23:1999.

Materials
All materials are latex-free.

Languages
Danish, Dutch, English, French, German, Greek, Italian, Japanese, Portuguese, Russian, Spanish and Swedish.

Make the most of transcutaneous monitoring
For more information on Radiometer’s transcutaneous monitors and support services, visit www.radiometer.com/tc.

For more clinical information on transcutaneous monitoring, visit www.bloodgas.org.

Sales companies:

Country:	*Radiometer representative:*	*Telephone:*	*E-mail:*	*Website:*
Australia:	Radiometer Pacific Pty. Ltd.	(+61) 3 9259 2222	sales@radiometer.com.au	www.radiometer.com.au
Canada:	Radiometer Canada	(+1) 877 414 0447 (toll free)	info@radiometercanada.com	www.radiometer.ca
China:	Radiometer China	(+86) 21 6128 6466	pol@radiometer.com.cn	www.radiometer.cn
Denmark:	Radiometer Danmark	(+45) 38 27 28 29	rdan@radiometer.dk	www.radiometer.dk
France:	Radiometer S.A.S.	(+33) 1 49 44 35 50	marketing@radiometer.fr	www.radiometer.fr
Germany:	Radiometer GmbH	(+49) 2154 8180	info@radiometer.de	www.radiometer.de
Ireland:	Radiometer Ireland Ltd.	(+353) 1 888 3611	sales@radiometer.ie	www.radiometer.ie
Japan:	Radiometer K.K.	(+81) 3 5777 3500	salesdep@radiometer.co.jp	www.radiometer.co.jp
The Netherlands:	Radiometer Nederland BV	(+31) 79 361 4593	info@radiometer.nl	www.radiometer.nl
New Zealand:	Radiometer New Zealand	(+64) 9 574 1400	sales@radiometer.co.nz	www.radiometer.co.nz
Poland:	Radiometer Sp. z o. o.	(+48) 22 518 02 40	info@radiometer.pl	www.radiometer.pl
Portugal:	Radiometer Ibérica, S.A.	(+351) 214 12 39 70	rapor@radiometer.es	www.radiometer.pt
Spain:	Radiometer Ibérica, S.A.	(+34) 91 655 99 50	resp@radiometer.es	www.radiometer.es
Switzerland:	Radiometer GmbH	(+41) 44 723 38 60	info@radiometer.ch	www.radiometer.ch
United Kingdom:	Radiometer Ltd.	(+44) 1293 517 599	sales@radiometer.co.uk	www.radiometer.com
USA:	Radiometer America Inc.	(+1) 800 736 0600 (toll free)	info@radiometeramerica.com	www.radiometeramerica.com
Other countries:	Radiometer International Sales Division	(+45) 38 27 38 27	isd@radiometer.dk	www.radiometer.com

RADIOMETER

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TCM400
Specifications

RADIOMETER

Parameter configuration

Type	Parameters	Units	Ranges
Measured			
Transcutaneous oxygen tension	tcpO_2	mmHg kPa	0-2000 0-266.7
Electrode heating	Power	mW	10-650
Calculated			
Regional Perfusion Index	RPI	-	0-3

Monitor data

Display options:	Normal view (numeric), Trend table view, Trend curve view
Display update:	Every 2 sec.
Print reports:	Trend table, Trend curve
Barometer:	375-825 mmHg, 50-110 kPa
Calibration:	Ambient air or calibration gas
Start-up time:	Max. 1 min.
Time:	Date, Clock
Timer:	Range: 0-99 hours, increments: 1 sec/1 min

Power requirements

Voltage:	90-264 VAC
Frequency range:	47-63 Hz
Power consumption:	70 VA (max.)

Monitor battery

Type:	Rechargeable Pb battery
Duty period:	1 hour typical per charge at 25 °C
Recharging time:	Approx. 8 hours at 25 °C

Sensor temperature settings

Setting:	37-45 °C
Increments:	0.5 °C
Accuracy:	± 0.1 °C (excluding sensor)

Dimensions

Monitor and module dimensions

	Monitor		O_2 Module	
Height:	16 cm	6.3“	3.5 cm	1.4”
Width:	30.8 cm	12.1“	14.5 cm	5.7”
Depth:	23 cm	9.1“	14.8 cm	5.8”
Weight:	4 kg	8.8 lbs	0.22 kg	0.5 lbs

Electrode dimensions (E5250)

Diameter:	Ø 15 mm	0.6”
Height:	11.3 mm	0.44”
Weight:	2.9 g	0.1 oz

IT solution

Computer specifications

6½" TFT, full VGA (640 x 480) color touch screen
AMD Geode GX1, 300 MHz (Pentium Class)
Windows CE 4.2
64 MB RAM
48 hours' storage of measuring data

Interface possibilities

Serial line:	EIA232, (RS232)
Printer output:	USB 1.0, HP PCL3 or higher

Sensor specifications

E5250

O_2 cathode:	25 µm Platinum
O_2 anode (reference):	Silver
Measuring principle:	Transcutaneous Clark-type O_2 electrode

Sensor performance (at 43 °C)

E5250

Response time pO_2:	< 11 sec (10 % to 90 % response)
Max. drift per hour:	< 1.0 %
Linearity at 0 % O_2:	Better than 1 mmHg
Linearity at 90 % O_2:	Better than 25 mmHg (equal to 4 %)

Accessories

Fixation rings (904-891)

Diameter:	30 mm
Adhesive material:	Medical grade Acrylic adhesive
Ring material:	PVC
Contact solution:	1.2-propanediol and deionized water

Membranes (904-308)

Membrane material:	PP membranes
Electrolyte solution:	1.2-propanediol, potassium chloride, sodium hydrogen carbonate and deionized water

TCC3 calibration unit (optional)

Height:	8 cm	3.15"
Width:	12 cm	4.7"
Depth:	23 cm	9.0"
Weight:	1.9 kg	4.2 lbs

Calibration:	1-point
Calibration gas:	5 % CO_2 and 20.9 % O_2, balance N_2
Gas flow:	8 mL/min ±2 mL/min
Automatic shut-off:	After 5, 10, 15, 20, 50 minutes, as desired
Battery type:	1.5 Alkaline, IEC type LR6