

TCM400

Specifications

Hardware

Computer specifications

CPU: AMD ETX LX800, 500 MHz (Pentium Class)
 RAM: 128 MB
 Software platform: Windows CE 5.0
 Start-up time: max 1 min

Operating conditions

Operating environment: 12-28 °C/54-82 °F
 Built-in barometer:
 Range: 375-825 mmHg or 50-110 kPa
 Accuracy: ± 5 mmHg or 0.67 kPa
 Power: 100-240 V, 50-60 Hz, 70 VA (max.)
 Built-in battery:
 Rechargeable Pb battery
 Typical operating time: 1 hour per charge at 25 °C

Software

Measuring range

Transcutaneous oxygen tension/tcpO₂:
 0-2000 mmHg or 0-266.7 kPa
 Sensor heating power: 10-500 mW; displayed accuracy: $\pm 3\%$
 Calculated regional perfusion index (RPI): 0-3

Calibration

Ambient air

Patient data storage

Up to 48 hours of accumulated measuring data from six tcpO₂ electrode modules in 10 second data intervals

Dimensions

TCM400 monitor

Width	30.8 cm	12.1 in
Depth	23 cm	9.1 in
Height	16 cm	6.3 in
Weight	4 kg	8.8 lbs

Display

Screen: 6.5" color touch TFT, full VGA (640 × 480)
 Display options: normal view (numeric), trend table, trend curve
 Display update period: 2 sec (numerical values and pO₂ graphs)

Interface connections

Serial output: RS232
 Printer output: USB 2.0
 Printer protocol: HP PCL3
 Print reports: trend table, trend curve

Site timer

Indication of remaining measuring time
 Measuring time is elapsed: clock triggers an alarm and sensor temperature is off
 Range: 0-99 hours in increments of 1 sec/1 min

Configuration

Up to 6 O₂ modules / tcpO₂ sensors

Languages

Chinese, Danish, Dutch, English, French, German, Greek, Italian, Japanese, Polish, Portuguese, Russian and Spanish

tcpO₂ module

Width	14.5 cm	5.7 in
Depth	14.8 cm	5.8 in
Height	3.5 cm	1.4 in
Weight	0.22 kg	0.5 lbs

tc Sensor E5250 (tcpO₂)

Sensor specifications

Measuring principle

Clark-type pO₂ sensor
O₂ cathode: 25 µm platinum
O₂ anode (reference): silver

Sensor temperature

Selectable between 37-45 °C in steps of 0.5 °C
Accuracy: ± 0.1 °C (excluding sensor)
Automatic temperature off when site time is elapsed

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

Compliance

Patient safety The instruments comply with IEC 60601-1, IEC 60601-1-2, IEC 60601-2-23. 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)

This product complies with the requirements of the Medical Device Directive 93/42/EEC June 1993
US Federal law restricts this device to sale, distribution, or use by or on order of a physician



Sensor performance (in vitro)

Conditions: sensor temperature of 43 °C
Response time tcpO₂: (10-90%): ≤ 11 sec
Drift: ≤ 1.0 %/h
Linearity: at 0% O₂: better than 1 mmHg or 0.13 kPa
at 90 % O₂: better than 25 mmHg or 0.67 kPa (equal to 4%)

Sensor remembraning

Every 7 days

Sensor dimensions

Diameter: 15 mm or 0.6 in
Height: 11.3 mm or 0.44 in
Weight: 2.9 g or 0.1 oz
Sensor cable length: 3 m or 9.8 ft, shielded, flexible, polyurethane coated

Biocompatibility

All materials are latex-free

EMC This product complies with the requirements of the harmonized standard EN60601-1-2.

EMC Emission EN55011:1998, level A.

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

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

Contact us

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