4_{meter}

LifeKit by MTTS



4METER

An instrument for determination of the **actual level** of sources required for an effective medical therapy.



Key Functions

- 1. Blue light irradiance measurement:
- verify irradiance of photo therapy devices during preventive maintenance and normal use
- 2. O₂ measurement:
- verify purity of O₂ sources (tank, generator, wall) during preventive maintenance
- verify mechanical blender and other blender during preventive maintenance
- leak search inside device and along external tubes during repair and equipment inspection
- 3. Pressure measurement:
- verify pressure at Y connector during use
- 4. Flow measurement:
- verify flow output of CPAP, Hi-flow and ventilators during preventive maintenance
- 5. High pressure measurement:
- verify hospital gas sources and check them for fluctuations
- 6. Temperature and humidity measurement:
- verify the temperature uniformity of the radiant warmers
- check temperature and humidity inside the incubators

Light Irradiance Sensor

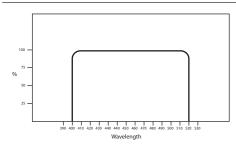
- spectral response chosen to match wavelength used for jaundice treatment
- two sided measurement for convenient measurement of double sided phototherapy devices such as the MTTS Firefly

Displays/Indicators

- touch screen liquid-crystal display (LCD)
- alarms: low battery, system failure, out of measurement
- results 'freeze'
- bandwidth estimator
- absolute and relative irradiance measurement
- multi-point mode



Light Sensor Spectral Response



Dimensions and Weight

Height	148 mm
Width	73 mm
Depth	17 mm
Weight	200 g

Performance Specifications

- LED and blue fluorescent phototherapy light sources; Application using the lightmeter for halogen phototherapy results

in a minor but not considerable error

- Various gas sources used for respiratory therapy

LIGHT SENSOR Spectral response 400-520nm

Measurement range single side $0.1 - 150.0 \,\mu\text{W/cm}^2/\text{nm}$ $0.1 - 300.0 \,\mu W/cm^2/nm$ double side

Resolution $0.1 \,\mu W/cm^2/nm$ ±2% @ 30 degree angle Cosine characteristics ±7% @ 60 degree angle

±25% @ 80 degree angle Accuracy +/- 3% of reading OXYGEN SENSOR FiO₂ 21-100%

0-120 lpm, bi-directional FLOW SENSOR flow MANOMETER pressure 0-100 cm H₂O HIGH PRESSURE SEN. ±100 psi pressure TEMP/HUMIDITY SEN. temperature 5-60°C 0-100% RH humidity

Battery Specification

Туре 2xAAA 1.5V Alkaline, Non-rechargeable Lifetime Up to 120h operating time

Environmental Specification

Operation Temperature 10°C to 40°C 0°C to 50°C Storage Temperature Operation Atmospheric Pressure 70 - 106 kPA Storage Atmospheric Pressure 70 - 106 kPA

Operation Humidity 30 - 90% RH non condensing Storage Humidity 5 – 90% RH non condensing

Sealing

Drop/Shock 1m onto hard surface, meets or exceeds IEC 60068-2-32

(only with the protective case)

Standards

ISO 13485:2016 IEC 61010-1:2010 IEC 61326-1:2012

Ordering Information and Servicing

ORDERING INFO ITEM ORDER NO Lightmeter LM-800 Main Unit Oxygen meter LM-800-020 Flow meter LM-800-030 LM-800-040 Manometer LM-800-050 High pressure meter Temperature/Humidity meter LM-800-060 Rechargeable batteries LM-800-070 and charger Storage case LM-800-080

Every 2 years after delivery date; Calibration Required return to MTTS for calibration

Parts No customer serviceable parts; return to MTTS for service

MEDICAL TECHNOLOGY TRANSFER AND SERVICES Co., LTD ISO 13485: 2016 Certified Company

For more information or to place an order please contact us at:

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