## 4<sub>meter</sub>

## 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. O<sub>2</sub> measurement:

- verify purity of O<sub>2</sub> 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

#### **Light Irradiance Sensor**

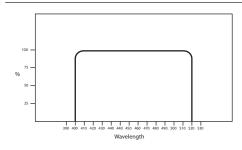
- spectral response chosen to match wavelength used for jaundice treatment
- two sided measurement for convenient measurement of double sided phototherapy devices such as the MTTS Firefly

#### 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**



Main Unit

#### **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  $0.1 - 150.0 \,\mu\text{W/cm}^2/\text{nm}$ 

double side

 $0.1 - 300.0 \,\mu W/cm^2/nm$ 

Resolution Cosine characteristics  $0.1 \,\mu W/cm^2/nm$ ±2% @ 30 degree angle ±7% @ 60 degree angle ±25% @ 80 degree angle +/- 3% of reading

Accuracy OXYGEN SENSOR

FiO<sub>2</sub>

PRESSURE SENSOR

FLOW SENSOR

flow

0-120 lpm, bi-directional

21-100%

0-100 cm H<sub>2</sub>O

**Battery Specification** 

Type 2xAAA 1.5V Alkaline, Non-rechargeable

Lifetime Up to 120h operating time

#### **Environmental Specification**

10°C to 40°C Operation Temperature Storage Temperature 0°C to 50°C 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

Oxygen meter LM-800-020 Flow meter LM-800-030 LM-800-040 Manometer Rechargeable batteries LM-800-050

and charger

Storage case LM-800-060

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:

(info@mtts-asia.com

www http://mtts-asia.com

No 26, Lane 41 An Duong Vuong Street Phu Thuong Ward, Tay Ho District Hanoi, Vietnam

Every 2 years after delivery date;

Distributor:

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