



GOLDILUX

GOLDILUX LEDLUX METERS

BASIC USER INFORMATION for *LEDLUX*

Instrument which can be used as a readout with calibrated GALP-1L PROBE

Instrumentation issued with Certificate of Conformance (CoC) from MIT

GENERAL DESCRIPTION

The GOLDILUX SERIES of PROFESSIONAL LIGHT METERS are handheld instruments designed to measure ILLUMINANCE of VISIBLE SPECTRAL RADIATION in LUX units. Developed at the CSIR – they have been tried and tested by many users and applications where they have been evaluated for reliability, stability of measurement and performance of cost vs quality, especially in view of the recalibration accuracy. Goldilux instruments are a fully designed, developed and manufactured South African product. Being sturdy and robust Goldilux meters are suitable as a measuring instrument in the field as well as in the laboratory. They are very easy to operate, have no obsolescence, can be re-calibrated and repaired in South Africa.

TAKING MEASUREMENTS WITH LED INSTRUMENTS generally requires that the source/lamp has stabilised in output to ensure meaningful readings. LED sources must have been switched on and running for at least 30 minutes. LUX output changes significantly over 30 minutes, unlike tungsten lamps.

The Goldilux LED LUX instrument is a handheld instrument that is factory calibrated according to a 4000K LED lamp, with special reference to a master LED instrument (11123/2089) and reference ISO17025 LED calibration certificate (JN190424/02).

LEDLUX instrument can be paired with any external probe of the GOLDILUX type, and it will work as a readout for the probe. As such it will operate similar to the GAL-3L readout. The detector in the LEDLUX is automatically disconnected - and the displayed readings correspond to the QUANTITY and UNITS measured with the PROBE.

The LEDLUX instrument has also been qualified for Intrinsic Safety (IS) certification. Instruments with this certification are available on request.

The LCD (display) of the meters (GAL-2L, GAL-2H) is auto-ranging, self-adjusting, over one decimal point. External probes (e.g. GALP-1L) have a built-in **probe gain selector switch** with two different settings – the probes therefore cover a wider range of readings with one fixed detector. The probe gain settings are multiplied as indicated on the probe labels and the switch setting indicated by the **probe range factor**. Probes combined with a non-specific meter (display - GAL-3L) offer the best combination with the widest possible measuring range.

EXTERNAL FEATURES AND CONTROLS

The ON/OFF switch is located on the left side of the meter housing. To switch ON move it forward. The meter is switched OFF when the switch is in the lower position.

The HOLD button (raised, white, top left button) is pushed "freeze" the reading at any given time as required by the operator. There is a 5 m extended range option for the hold button operation, with the remote hold cable.

The ANALOG OUTPUT is available for various applications where a 2V output for a full-scale reading can be used for direct analogue measurement input. It has an output impedance of 10 kΩ.

OPERATING INSTRUCTIONS

- 1) Remove the instrument from its casing/packaging and mount or hold it in the desired measurement position.
- 2) Switch on the instrument with the slide switch on the left hand side and check its zeroing with the cap firmly on the detector*.
- 3) Remove the protective cap from the detector.
- 4) Instrument will start reading. Check on the units (LUX, KILOLUX) as indicated by the label. (FOOTCANDLE units only available on special request).
- 5) Press the white hold button on the top of the instrument to freeze the reading at any particular time of the measurement procedure.

NB – the instrument is powered by a 9V (alkaline) battery. Please check that it is inserted and properly connected in the battery compartment. A battery is included in the packaging for start-up purposes.

* If the zero reading cannot be obtained – the instrument needs to be sent for calibration. Any user attempting to make adjustments via the potentiometer (accessible through the latch opening in the battery compartment) will invalidate the calibration. The warranty of the instrument is also no longer applicable.

(A metrologist will be doing the re-calibration by means of an adjustment of the potentiometer).

MAINTENANCE & PRECAUTIONS

When not in use, switch the instrument OFF, by sliding the switch on the side of the instrument downwards. Always put the protective cap on the detector and keep the instrument in a safe place.

The 'LOW BATTERY' warning will come up on the screen when the battery needs replacing.

If necessary, clean the detector with a soft cloth and alcohol. The white diffuser housing the detector should be free and clean from grime or smudges (as this may affect readings).

In high salty climates intensive use of the instrument might lead to the detector glass may become corroded. If you suspect this situation, have your meter recalibrated or ask the manufacturer for an inspection.

SPECIFICATIONS

Measurement parameter: Illuminance, **Dynamic range:** 1:200 000, **Readout:** 4½ digit LCD display, **Power source:** 9V type PP3 battery, battery life approximately 200 hours for alkaline battery, **Detector:** Silicon photodiode with photo-metric filtering, correction factor for the LEDLUX to Illuminant A calibration is ~1.7

Warranty Information with specific reference to Exclusions and Limitations.

WARRANTY INFORMATION

One (1) year limited warranty.

The manufacturer warrants the instruments against defects in materials and workmanship for a period of one (1) year from the date of original retail purchase (proof of purchase required). The interpretation of this warranty must be read in conjunction with the LIMITATION of WARRANTY referring to a fitness for a particular purpose. In this respect the manufacturer does not warrant a compliance of the factory calibration or CofC of MIT with the requirements of an accredited calibration lab setting attempting to use tungsten lamp calibration method (CIE Standard Illuminant A). Such calibration submission is done at the sole responsibility & discretion of the purchaser. The manufacturer does not honour this fault report for a factory warranty repair.

MIT or a distributor shall NOT be obliged to repair or refund the LEDLUX instrument in such cases. Please consult the pricelist for cost of re-adjustment at the manufacturer to read correctly for the accredited Illuminant A accredited Light meter calibration certification.

Goldilux offers these Lux meters as alternative options to LEDLUX: **GAL-2L & GAL-2H.** - which are guaranteed to pass the photometric calibration by an ACCREDITED CALIBRATION Lab.

Defects resulting from improper handling or inadequate maintenance by the customer, customer-supplied software or interfacing, unauthorized modifications or misuse, operation outside the environmental specifications for the product, improper site operation and maintenance, an accident or abuse are excluded from this warranty.

Obtaining warranty service

To obtain warranty service, the products must be returned by the purchaser to an approved distributor. A distributor will return the instruments to the manufacturer where a full evaluation will guide the decision on whether repair or replacement of the instrument is needed. The purchaser will be informed of the outcome of the evaluation. A warranty claim or a repair for the defective product will be processed from there with the understanding from the user/purchaser. Shipping charges from the customer to an approved distributor shall be to the account of the customer and shipping charges from the approved distributor to the manufacturer shall be paid by the approved distributor.

The manufacturer shall pay for the return of the replacement product to the approved distributor, who shall be responsible for the shipping charges to the customer.

Warranty limitations

The manufacturer makes no other warranty, either expressed or implied, with respect to these products. The manufacturer specifically disclaims the implied warranties of merchantability and fitness for a particular purpose.

Some states or provinces do not allow limitations on the duration of an implied warranty, therefore the above limitations or exclusion may not apply to you. However, an implied warranty of merchantability or fitness is limited to the one (1) year duration of this written warranty.

This warranty gives you specific legal rights, and you may also have other rights which may vary from state to state, or province to province.

Exclusive remedies

The remedies provided herein are the customer's sole and exclusive remedies. In no event shall the manufacturer be liable for any direct, indirect, special, incidental or consequential damages, whether based on contract, tort or any other legal theory. Some states or provinces do not allow the exclusion or limitations of incidental or consequential damages, thus the above limitation or exclusion may not apply to you.

Approved distributor addresses (South Africa):

AMS HADEN, Roodepoort, Gauteng, www.amshaden.co.za, 011 475 2064

H. Rohloff (Pty) Ltd, Krugersdorp, Gauteng, www.rohloff.co.za, 011 704 2233

ENVIROCON INSTRUMENTATION C.C., Northcliff, Johannesburg, www.envirocon.co.za, 011 476-7323

GAMMATEC ENGINEERING (Pty) Ltd, Vereeniging, www.gammatecsa.com, 016 423 7731

Glenmed HealthCare Solutions Durban, www.glenmedsolutions.com 031 202 4115

Techtra Engineering Consultants, Honeydew, Gauteng, www.techtra.co.za, 011 794 9265

TNT::Tools for Non-Destructive Testing, Cape Town, <https://ndtequipment.co.za>, 021 948 3089

Arrabon Trading CC, Centurion, Gauteng, <http://arrabon.biz>, 0861 000 743

Health and Occupational Hygiene Lab CC, Centurion, Gauteng, <http://ohlearning.com>, 012 653 3850

GfG (Pty) Ltd, Krugersdorp, Gauteng, gfgsa@icon.co.za, Google, 011 955 4862

Technology Solutions, Route 21 Corporate Park, Irene, Gauteng, www.technologysolutions.co.za, 012 345 5358

Professional Illumination Design, Cape Town, www.pidesign.co.za, 021 706 0590