

# 使用说明书

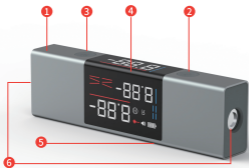
## LI1激光投线角度仪



※支架为单独产品, 需另行购买

### 产品简介

杜克LI1激光投线角度仪是一款可以360°任意角度投线的便携式量具, 其功能多样、操作简便且用途广泛, 为室内施工放样和校准提供精确的水平、垂直基础和铅垂基准, 起到辅助和定位标线的作用。主要用于测量相对于水平位置的倾斜角、墙地面的平整度和直线度、设备安装的水平位置和垂直位置等, 在机械行业、仪表制造、建筑施工、室内外装修、吊顶、贴砖砌墙等领域均有广泛应用。



①外壳

④显示屏

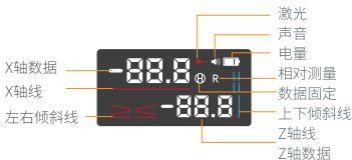
②开/关电源键

⑤Type-c充电口

③测量键

⑥激光发射口

## 主显示屏



## 顶部侧屏



## 开机

短按右侧电源键约1秒开机。



## 关机

长按右侧电源键约2秒关机，  
3分钟内无任何操作自动关机。



## 激光投线

激光开启：开机后短按右侧键，投射十字红激光；



激光关闭：再次短按右侧键，关闭激光投射。



## 角度测量

开机后主屏幕自动显示X、Z轴角度，稳定保持3秒，  
数据固定并显示固定符号H；短按左侧测量键，开  
启角度测量，再次短按，重新进入测量。



## 相对角度测量

开机后默认进入角度测量模式，仪器在开机状态下：

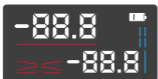
### 相对测量模式

长按左侧测量键2秒，切换到相对测量模式R；



## 角度测量模式

再次长按左侧测量键2秒, 切换到角度测量模式;



\*相对测量模式: 指以仪器当前角度作为绝对0°, 而不是以海平面或90°线作为绝对角度。

## 数据显示

### 顶部侧屏显示

红线亮时, 当前屏幕显示为X轴数据;



蓝线亮时, 当前屏幕显示为Z轴数据;



待测量稳定后, X、Z轴数据固定并轮换显示。



### 主屏显示

测量时主屏幕同时显示X轴、Z轴数据。



## 技术参数

产品名称	杜克LI1激光投线角度仪
产品尺寸	120*20*35mm
产品重量	70g
激光辐射等级	II级 (660±5nm, <1mW)
整机峰值功率	700mw
测量精度	±0.5°
水平精度	±1mm/5m
垂直精度	±1mm/5m
最佳使用范围	<10m
工作温度	-10°C~50°C
存储温度	-20°C~55°C
供电电源	730mAh可充电锂电池
工作时长	无激光连续续航:33小时 单激光连续续航:5小时 双激光连续续航:3.5小时 待机时长:>300天

注:单/双激光为两个不同版本产品,依据您购买的版本而定。建议搭配LI1专用支架使用,应用场景更广、使用更方便。请联系客服人员咨询、购买。

## 安全须知

- 在使用产品前请务必阅读本说明书及其相关安全信息,使用者必须完全理解并按照相关指导进行操作;
- 操作时,勿将眼部暴露于出射的激光光束,长时间暴露在激光束下可能会导致眼睛损伤;
- 严禁直视激光束或通过光学仪器直接观察激光光束或将激光放置在目视高度;

- 请勿让儿童操作激光仪器，如不使用，请将仪器放置在儿童触摸不到的区域；
- 2类激光束被认为是安全的，如不慎被激光照射，眼睑反射（眨动）通常会提供足够的保护，请勿恶意将激光照射他人；
- 水平测量时仪器需放置平稳，尽量防止手感上的抖动，需稳定后方可读数；
- 请勿在易燃、易爆的环境中使用本产品，可能会致使产生火花，点燃灰尘或烟雾；

## 关于保养

- 请勿随意拆卸仪器部件或擅自改制仪器，不专业的拆动将会损坏仪器，如果仪器损坏，请与您当地的经销商联系；
- 请保持激光输出口清洁，可定期用湿布清洁擦拭外部件，切忌使用溶剂清洁；
- 请勿将本产品与生活垃圾一同处理，应严格按当地相关法规来处置废弃的仪器或部件；

## 特殊声明：

本公司不对使用该产品的任何衍生结果承担法律责任；本公司保留对产品设计、升级及说明书内容更改的权利，若有变更，恕不另行通知！



## 杜克 简单好工具！

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※杜克/DUKA为安士工具旗下品牌

# Instructions for use

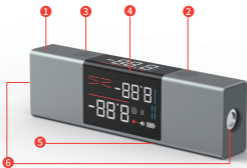
## LI1 Laser Line Projection Angle Gauge



※Stand is a separate product and must be purchased separately

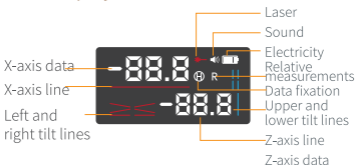
## Product Description

The DUKE LI1 is a portable gauge that can be used at any angle of 360°. It is versatile, easy to operate and versatile in providing accurate horizontal and vertical base and plumb bases for interior construction sampling and calibration, aiding and positioning alignment. It is mainly used to measure the inclination angle relative to the horizontal position, the flatness and straightness of walls and floors, the horizontal and vertical position of equipment installation, etc. It is widely used in the mechanical industry, instrument manufacturing, building construction, interior and exterior decoration, ceiling, bricklaying and other fields.



- ① Housing
- ② Power on/off button
- ③ Measurement keys
- ④ Display screens
- ⑤ Type-c charging port
- ⑥ Laser emission port

## Main display



## Top side screen



## Start up

Press the right-hand power button briefly for approx. 1 second to switch on.





## Shutdown

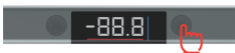
Press and hold the power button on the right side for about 2 seconds to switch off.

Automatic switch-off within 3 minutes without any operation.



## Laser line casting

Laser on: short press on the right button after switching on to project a crossed red laser.



Laser off: press the right-hand button briefly again to switch off the laser projection.



## Angle measurement

The main screen automatically displays the X and Z axis angles after switching on and holds steady for 3 seconds. The data is fixed and the fixed symbol H is displayed; short press the left measurement key to start angle measurement, press again briefly to re-enter measurement.



## Relative angle measurement

When switched on, the instrument enters the angle measurement mode by default, and when switched on.

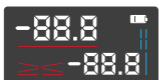
### Relative measurement mode

Press and hold the left measurement key for 2 seconds to switch to the relative measurement mode R.



### Angle measurement mode

Press and hold the left-hand measurement key again for 2 seconds to switch to angle measurement mode.



\* Relative measurement mode: means using the current angle of the instrument as absolute 0°, rather than sea level or 90° line as the absolute angle.

## The data shows

### Top side screen display

When the red line is lit, the current screen is displayed as X-axis data.



When the blue line is lit, the current screen is displayed for Z-axis data.



Once the measurement has stabilised, the X and Z axis data is fixed and displayed in rotation.



### Main screen display

The main screen displays both X- and Z-axis data during measurement.



## Technical specifications

Product Name	L11 Laser Line Projection Angle Gauge
Product Size	120*20*35mm
Product weight	70g
Laser radiation level	Class II (660±5nm, <1mW)
Peak power of the whole machine	700mw
Measurement accuracy	±0.5°
Horizontal accuracy	±1mm/5m
Vertical accuracy	±1mm/5m
Optimum operating range	<10m
Operating temperature	-10°C~50°C
Storage temperature	-20°C~55°C
Power supply	730mAh rechargeable lithium battery
Operating hours	Continuous endurance without laser: 33 hours Single laser continuous battery life: 5 hours Dual laser continuous battery life: 3.5 hours Standby time: >300 days

Note: Single/Double laser are two different versions of the product, depending on the version you purchase. It is recommended to use with the L11 special stand for a wider range of applications and ease of use. Please contact customer service for advice and purchase.

## Safety instructions

- Be sure to read this instruction manual and its related safety information before using the product, and that the user fully understands and follows the relevant instructions.
- Do not expose the eye to the outgoing laser beam during operation, prolonged exposure to the laser beam may result in eye damage.
- Never look directly into the laser beam or at the laser beam directly through an optical instrument or place the laser at eye level.

- Do not allow children to operate the laser apparatus and, if not in use, keep the apparatus out of the reach of children.
- Class 2 laser beams are considered safe and eyelid reflexes (blinking) will usually provide adequate protection if inadvertently exposed to the laser; do not maliciously direct the laser at others
- The instrument needs to be placed smoothly when measuring horizontally to prevent as much shaking as possible in the hand and needs to be stable before reading.
- Do not use the product in flammable or explosive atmospheres as this may cause sparks, ignite dust or fumes.

## About Maintenance

- Do not disassemble the instrument parts or modify the instrument without permission, unprofessional disassembly will damage the instrument, if the instrument is damaged, please contact your local dealer.
- Please keep the laser output port clean, the outer parts can be cleaned and wiped with a damp cloth periodically, do not use solvents for cleaning.
- Do not dispose of this product with household waste, dispose of disused instruments or parts in strict accordance with local regulations.

## Special declaration.

We do not accept liability for any derivative results of the use of this product; we reserve the right to make changes to the design of the product, upgrades and the content of the manual without notice!



## ATuMan.Simpler measurement

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