

激光定位仪对齐系统DLS01C Digital Laser Line Alignment System

产品名称	激光定位仪对齐系统DLS01C Digital Laser Line Alignment System
公司名称	深圳市福田区艾可信仪表仪器商行
价格	面议
规格参数	品牌:DLS 型号:DLS01C
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产品详情

read instructions carefully before power up the units

do not plug sensor with the same id number to controller

warning!

follow the instructions of operating the sensor and controller, otherwise they will be damaged!

introduction:

main controller dls01c

dls01 is a sophisticate laser beam alignment system which targets for low cost and high accuracy applications. the system is suitable for both laser beam and laser line positioning and alignment which stability and accuracy are the

prime goals. the system employs high resolution linear position array and micro-controller based technology for stable and accuracy measurements. it allows multiple sensors connection to a centralized controller with real-time graphical interface and easy to configure measurement parameters. the measured data could be stored and analyzed by the window software that comes with the system.

highlights:

stable and accurate:400 dpi position sensing array, provide upto 10um (0.0004 inch) resolution and 40um (0.0016inch) accuracy large dynamic range:adjustable sensitivity, suitable for various ambient lighting conditions.large sensing area:the linear sensor active area is 1.92 inch (48.8mm), which is ideal for measuring laser beam and line displacement.real time graphical display:dot matrix lcd controller real time display of measurements simultaneously and simple config. settings.multiple sensor connectivity:each controller interfaces upto 4 sensors module. each module configures with individual id.fully integrated system:the controller could be connected to pc for data collection and analysis.long working range:sensors could be installed upto 200 ft. (60m) from the controller. sensors connect to controller via industrial rs485 standard serial interface protocol.alloy housing:provides durable and stable mounting of the sensor in rough working environments.

laser alignment controller dls01c

single line ccd array sensor dls01s

features:

- 1) large dot matrix graphic lcd, real time light strip display on lcd
- 2) long distance measurement by rs485 connection, up to 200 ft. (60m) between sensors and controller
- 3) monitor upto 4 sensors at the same time
- 4) graphic and real time display of laser position, easy operation of aligning of 2 or more sensors.
- 5) high accuracy 400 dpi resolution, with software enhancement, resolution could be up to 10um or 0.0004 inch and 40um (0.0016inch) accuracy
- 6) tunable sensitivity, able to cope with different ambient light conditions.
- 7) wide incident light wavelength 400 to 1000nm
- 8) auto light stripe center finding function
- 9) accurate laser width measurement
- 10) tunable light intensity trigger level

11) large sensitive area 48.8mm (1.92 inch), easy to capture light stripe

12) user friendly computer software, runs on os win2000, winxp and win7

application field:

- 1) construction alignment (can work with general laser leveling equipment)
- 2) led manufacturing
- 3) optical laboratory
- 4) laser manufacturing
- 5) laser leveling manufacturing
- 6) optical equipment
- 7) large machine assembly
- 8) beam profile measurements
- 9) m² measurements
- 10) industry process control

dls01c specification:

input voltage	9v dc
operating current (ma)	500
rs485 sensor port	4 port rj11 6p6c
sensor support	4 dls01s at same time
display	240x128 dot matrix lcd
lcd visible area (lxw in mm)	114x64
backlight	yellow green led
color	black
dimension (lxwxh in mm)	150x105x35

dls01s specification:

input voltage	9v dc from dls01c rs485
operating current (ma)	1200
input light wavelength	400 to 1000nm

rs485 sensor port	1 port rj11 6p6c
maximum rs485 cable length (m)	60
channel switch	4 ways
light sensitivity trimmer	round tune
mounting screw hole	1/4 " -20 standard tripod screw
sensing length (mm)	48.8
sensing technique	ccd
maximum sensitivity (mw)	0.001
*signal to noise snr	4db
resolution	768 pixel, 400 dpi
color	black
dimension (lxwxh in mm)	65.5x65.5x40

*remark: snr calculated in design theory.

instruction:

dls01c

button key:

button	function
up	move cursor up
down	move cursor down
enter	press to confirm at menu mode
mode	scroll the mode from measure, menu and power off in cycle

measure mode:

id:

show the id number of the sensor inside the system and relative reading.

zero:

the zero point setting at which position. setting zero point in menu mode -> calibrate

center:

center position of the light stripe applied to sensor

line width:

light width applied on the sensor

graphic display of light stripe:

the lcd can display readings of the all the sensors connected to it simultaneously and real time displays the light stripe absolute position. this function is user friendly and simple for tuning or calibration.

menu mode:

zoom:

4 level digital zoom.

press down key to scroll from level 1 to 4 at measure mode

in menu mode, select the zoom and choose level.

tolerance:

fast mode to verify the light stripe on 4 sensors is in straight line. if the 4 sensors in the reading with tolerance, at lcd display right bottom corner will shows 0-1-2-3

tolerance level has +/-0.5, +/-0.1, +/-0.05 mm for selection

resolution:

represent running average the controller will calculate. reading will show 10 measurement averages for setting to level10

in menu mode, select the resolution and choose level.

sensitivity:

level 1 is lowest and 4 is highest sensitivity. this is for coarse tuning; fine tuning suggests tuning at sensor by the trimmer.

press up key to scroll from level 1 to 4 at measure mode

in menu mode, select the sensitivity and choose level.

backlight:

go in menu mode to select backlight and press enter to confirm on/off

calibration:

this function can set the zero point of sensor.

- 1) apply a laser dot or laser line on the sensor
- 2) tune the laser center position to your target zero point
- 3) press “ menu ” key
- 4) select “ calibrate ” and press enter
- 5) make sure the laser is on zero position of sensor
- 6) press enter to confirm
- 7) back to measure mode

reset settings:

scroll the number by up or down key, default password is 0000 and then confirm by enter key to set to factory setting.

instruction:

dls01s

- 1) verify the id number of the dls01s, one system do not allow repeat id sensor, it may damage the controller and sensor.
- 2) set the id number to your request
- 3) led will flash for normal connection
- 4) ready to use

sensor sensitivity fine tuning:

- 1) target the light on the sensor around the center position
- 2) power on dls01c controller, connect sensor and controller by cable
- 3) tune the “ sensitivity ” at dls01c controller to level 1

clockwise: tune down sensitivity

anti- clockwise: tune higher sensitivity

- 4) estimate the light line width, if it is around 2mm, and then check controller line width reading.
- 5) fine tune the sensor sensitivity trimmer at dls01s until controller line width reading is correct.

pc communication:

- 1) provide labview vi for further development(purchase code: #dls-a-0006)
- 2) standard pc software support real time 4 channel light alignment and positioning(purchase code: #dls-a-0006)
- 3) rs485 to rs232 industrial grade converter (purchase code: #dls-a-0001)

purchase package:

4 sensor package (purchase code: #dls-p-0001)

1 pcs dls01c controller (purchase code: #dls-c-0001)

4 pcs dls01s line sensor (purchase code: #dls-s-0001)

1 pcs 110v/220v 9v dc 2a adapter (purchase code: #dls-a-0002)

1 pcs carrying case (purchase code: #dls-a-0003)

4 pcs 2 m rs485 6p6c cable (purchase code: #dls-a-0004)

1 pcs dls01c mini mounting stand (purchase code: #dls-a-0005)

optional accessories:

1 pcs dls01a rs485- rs232 package (purchase code: #dls-a-0001)

1 set dls pc software v1.0 (cd) (purchase code: #dls-a-0006)

headquarter:

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图片介绍：

1.整体配件图

2.主机正面图

3.主机接口图

4.主机按键控制图5.配件rs232/rs-422/rs-485转换接口6.附件正面图7.附件接口图

note:

本产品的加工定制是否，品牌是DLS，型号是DLS01C，外形尺寸是180*180（mm），重量是2（Kg），产品用途是激光定位