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LDM-H02

HANDHOLD LASER SCAN MICROMETER

OPERATION MANUAL

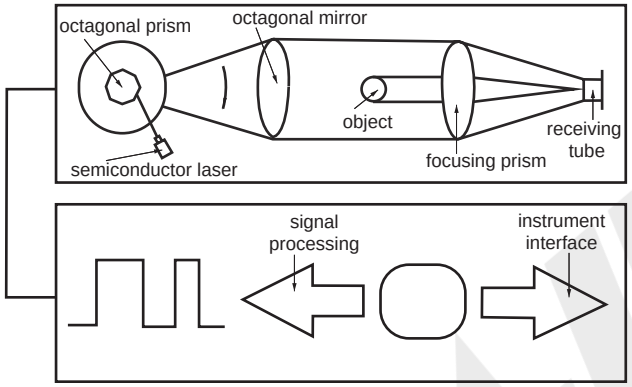
PLEASE SCAN QR CODE TO WATCH THE OPERATION VIDEO OF PRODUCTS.

VIDEO

PRINCIPLE

The laser beam is emitted by the semiconductor laser, and the octagonal prism is rotated at a high speed by the motor, and the laser beam is scanned and converted into parallel light through the octagonal mirror to pass through the test area. When the test area has the object to be tested, it blocks part of the parallel light to passe through. The focusing prism is converted to a low level on the receiving tube; and the parallel light that is not blocked by the object to be measured is converted into a high level. By calculating the scan time of the low level, the outer diameter value of the measured object in the scanning direction of the laser beam can be calculated.

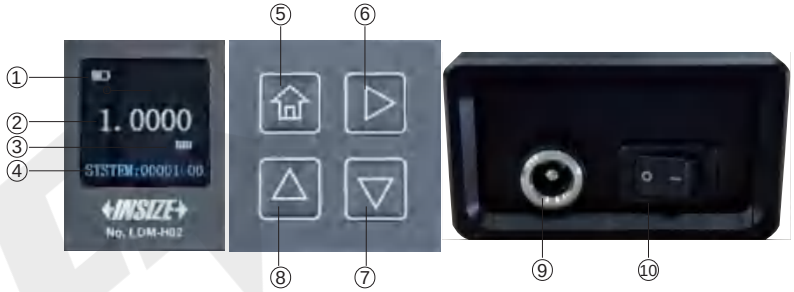
This product belongs to Class 2 laser products. Do not stare or observe the laser beam through optical instruments.



SPECIFICATION

Measuring range	0.02~2mm
Resolution	0.001mm/0.0001mm/0.00001mm selectable
Accuracy (25°C in laboratory)	±0.5μm
Repeatability (25°C in laboratory)	0.3μm
Laser wave length	650nm
Measuring speed	800times/s
Operation temperature	0~50°C
Operation humidity	35~85%RH without condensation
Power	Built-in 7.4V rechargeable battery
Weight	495g

OVERVIEW



No.	name	description
1	display	display battery level
2		display of measured values and error status
3		displays the current measurement unit
4		display password and menu name
5	menu key	entering the password interface, confirming the password, switching the parameter name, saving the parameter
6	right shift key	move the parameter setting value cursor
7	down-down key	minus parameters, shortcut keys
8	uplink key	add parameters, shortcut keys
9	switchgear	turn the instrument off or on
10	charging port	instrument charging port

*** Note: Use only the original charger, other chargers may cause permanent damage to the battery**

● Measurement parameter setting

1.Long press [⌂] for 3s to enter the password interface.
2.Short press [▷] to move the cursor, short press [△] or [▽] to enter the password within the basic settings.
3.Short press [⌂] to confirm the password and enter the parameter setting interface after the password is correct.
4.Press [▷] briefly to move the cursor, press [△] or [▽] briefly to change the parameter setting value.
5.Toggle the parameter to be modified by pressing [⌂] .
6.Repeat 4 to 5 to change the parameters to be modified.
7.After the parameter change is completed, press and hold the [⌂] for 3s to exit and save the parameter.

SETTING

	code table	initial setting	description
measurement parameters, password 220			
	OBJ	nor	DUT category, nor:non transparent , trans:transparent
	AVE	256	average number: 1, 8, 16, 32, 64, 128, 256, 512, 1024, 2048
	D-MODE	dia	measurement mode:dia
	D.DT	500	delay time:0~9999ms
	DISP-T	200	cyclicality:0~10000ms
	AVE-M	move	average method, move: moving average, simple: simple average
display parameters, password 990			
	UNIT	mm	units: inch, mil, mm, μm
	RES	0.0001	resolution: 0.001~0.0001
	SC.DIR	dia	res: dia
	FK.UP	off	up-down shortcut, off,a.on: quick fix, 1.on: single-point correction, unit: unit switch, dir:display direction switch
	FK.DO	off	
	POW.T	alternate	standby, move: moving average, simple: simple average
	D.DIR	top	display direction, top:vertical display, left:landscape display
correction parameter, password 123			
	OFF-1	0.0000	revised value: -0.0500~0.0500

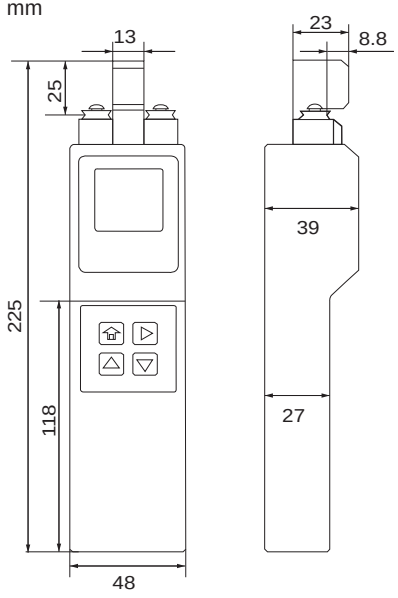
Note: parameters not written in the above table are alternate parameters.

● Modify parameter settings

workflow	display screen
1.Long press [⌂] key for 3s to enter the password interface. 2.Short press [▷] to move the cursor, short press [△] or [▽] to enter the password.	
3.Short press [⌂] to confirm the password and enter the parameter setting interface after the password is correct.	
4.Short press [▷] to move the cursor, short press [△] or [▽] to change the OFF-1 correction value to -0.0010. 5.When the correction parameter change is complete, press and hold the [⌂] key for 3s to exit and save the correction value. 0.0510 will be finally displayed as 0.0500.	

● Dimension

unit: mm



TROUBLES AND ERRORS

● Fault Resolution

If the product does not work properly, follow the steps below to test it. If the product still does not work properly after testing, please contact us.

matter	probe	solution
panel not lit	check the battery for power	connect the power charging cable correctly
	check that the power switch is on	turn the power switch on
	check that the power supply voltage is within the specified range	
display ERR		processing according to the error code displayed
measured value not displayed	check that the target is within the measurement area	placement of the target into the measuring area
	check that the target is not smaller than the min measuring range	correct use of targets
	check for correct measurement mode	setting the measurement mode correctly
	check for zero junctions	use the caliper in the right environment.

● False

display	instruction	solution
PER-00	circuit failure	contact us
PER-01		
PER-02		
PER-03		
PER-04	Motor speed too slow	
PER-05	Measuring area too small	check that the measurement area is not obscured. If it is obscured, the beam cannot be blocked by objects other than the target
PER-06	Target at window edge position	Correct Placement of Targets
PER-08	Dust or contamination in the vicinity of the target	remove contaminants from the lens, if it is a transparent object set the target to transparent object mode
PER-99		
PER-09	signal interference	contact us
PER-10		
PER-IC	circuit failure	