SMART MICROSCOPE
CODE ISM-DL400**

AUTOMATICALLY LOCATE WORKPIECES REGARDLESS OF POSITION AND DIRECTION

BUILT-IN SOFTWARE WITHOUT COMPUTER

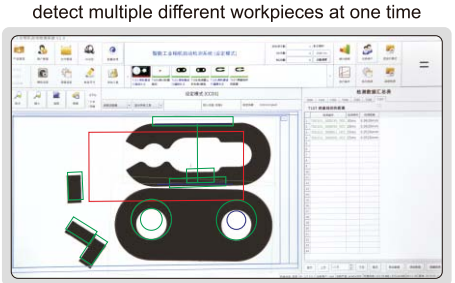
VIDEO

sensor switch (triggered when an object passes by within 3cm and a detection is performed, the interval time between triggering and detection is adjustable)

camera function

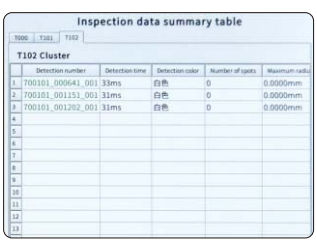
- surface defect detection
- dimension measurement
- read barcode
- burr detection
- contour matching
- character recognition
- color detection
- read QR code
- object counting
- thread measurment

detect multiple different workpieces at one time



- Automatically identify different workpieces
- Automatically locate workpieces regardless of position and direction
- Built-in software, PLC control input and output interface
- Including multiple detection tools
- Automatically calculate, store the test results and export to Excel

report showing the perform times of each tool, quantity of OK and NG, the report can be saved



report of each detection is automatically created and saved

SPECIFICATION

Magnification	15X~100X
Resolution	1920×1080
Pixel	2M
Single pixel size	3.75×3.75μm
Frame rate	60fps
Sensor	1/2" CMOS
Chip structure	FPGA+ARM
Opreating system	Linux 3.10
Power supply	220V, 50/60Hz **
Dimension (L×W×H)	570×300×430mm
Weight	6.5kg

Add "-U**" on code No. when power supply is 110V, 50/60Hz

STANDARD DELIVERY

Main unit	1 pc
0.5X camera adapter	1 pc
1X auxiliary objective	1 pc
Calibration plate	1 pc
16G USB flash disk	1 pc
White/black plate	1 pc
HDMI cable	1 pc
Power adapter	2 pcs

MAGNIFICATION, FOCUS DISTANCE AND VIEW FIELD

Auxiliary objective	Specification	Camera adapter	
		0.5X (included)	1X (optional)
1X (included)	Magnification	15~100X	30~200X
	Focus distance	70±2mm	70±2mm
	View filed	16×11~2.5×1.6mm	7.8×5.3~1.2×0.8mm
2X (optional)	Magnification	30~200X	60~400X
	Focus distance	29±2mm	29±2mm
	View filed	7.8×5.3~1.2×0.8mm	3.8×2.7~0.6×0.4mm

OPTIONAL ACCESSORY

1X camera adapter	ISM-DL-CA1X
2X auxiliary objective	ISM-DL-OB2X
LED auxiliary illumination	ISM-DL-LED
Coaxial light illumination	ISM-DL-COAXIAL
Auxiliary objective	page 276

To be continued

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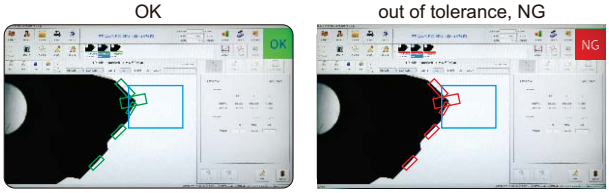
▪ APPLICATION EXAMPLES:

dimension measurement

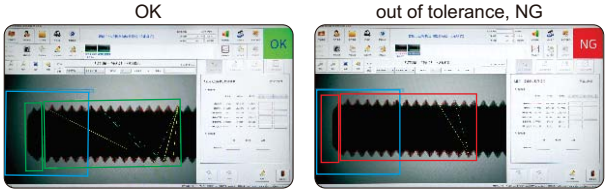
OK | out of tolerance, NG



automatically locate and measure, and judge OK or NG

thread measurement

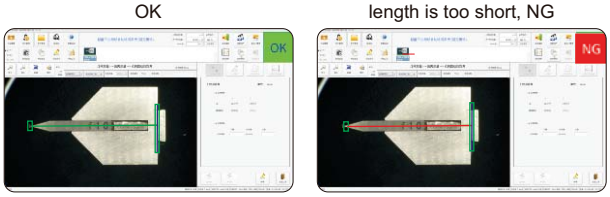
OK | out of tolerance, NG



automatically measure major diameter, minor diameter, thread angle, pitch of thread, and judge OK or NG

cutting tools measurement

OK | length is too short, NG



measure length and angle

counting

15 pcs holes, OK | 12 pcs holes, NG

automatically locate and count, and judge OK or NG

existence or absence

existence, OK | absence, NG

automatically detect the existence or absence of the target

character recognition

character is “EF”, OK | character is “E”, NG

automatically detect letters or numbers in the area, and judge OK or NG

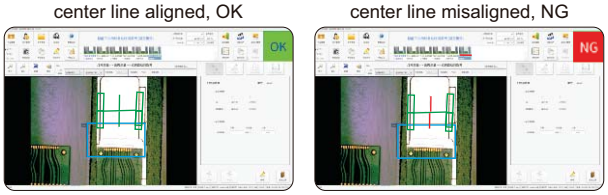
color detection

OK | sequence error, NG

automatically detect colors, and judge OK or NG

location detection

center line aligned, OK | center line misaligned, NG



automatically detect whether the center line is aligned or not

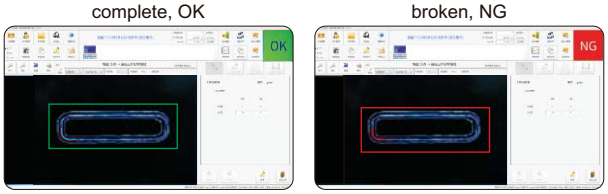
surface defect detection

no defect, OK | defect, NG

detect missing and burr on the edge of circle, and judge OK or NG

glue detection

complete, OK | broken, NG



automatically detect if there is break of glue, measure width, and judge OK or NG