SINOWON®

Vision Measuring Machine

CHRocodile S Series

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The CHRocodile S optical sensor is the all-rounder with an excellent price/performance ratio. It is perfectly suited for challenging measuring tasks, such as the non-contact measurement of topography and thickness. The sensor employs two different methods of measurement and thus is able to measure thicknesses of a wide measuring range.

The extraordinarily high dynamic response and the outstanding signal-to-noise ratio of the CHRocodile sensors ensure the best measuring results on surfaces with differing reflectivity and from different angles

Characteristics

EFFICIENT
- Precise
- Rapid
- Non-contact

VERSATILE
- Distance and topography
- Wide thickness measuring range
- Measurements on all surfaces
- Inline and offline

User Friendly
- Maintenance-free
- Simple to integrate
- Nondestructive measurement
- Robust
- Automatic light control

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Specification

Application	Distance, thickness
Measurements /second	32 - 2000
Interferometric Measuring Range [1)]	3 µm - 180 µm
Chromatic Measuring Range	Depends on optical probe
Pitch Error [2)]	< 10 -3
Linearity Error [2)]	< 3.3 x 10 -4 x upper measuring range limit
Resolution	10 -7 x upper measuring range limit
Reproducibility	9 x 10 -5 x upper measuring range limit
Number of measuring channels	1
Synchronization with external devices	Trigger input, synchronizing output, 3 encoder inputs
Interface	USB, RS-232, RS-422, 2 x analog (0 V to 10 V, 16 Bit), LVDT 3)
Transfer Rate	RS-232 (9600 - 921600 Baud); RS-422 (9600 - 921600 Baud); USB: virtual comport (921600 Baud)
Light Source	LED
Length Optical Fiber[4)]	2 m - 40 m (multi mode fiber)
Fiber Connection	E 2000
Operating Temperature	+5°C up to +50°C
Dimension (w x h x d)	200 mm x 100 mm x 93 mm
Weight	1.1 kg
Supply Voltage	16 - 30 V DC (with separate power supply 90 - 264 V AC)
Rated Power	10 W

1) Optical length
2) Measuring accuracy = linearity error + (pitch error x measuring value)
3) Optional
4) Metal cover up to 15 m also available

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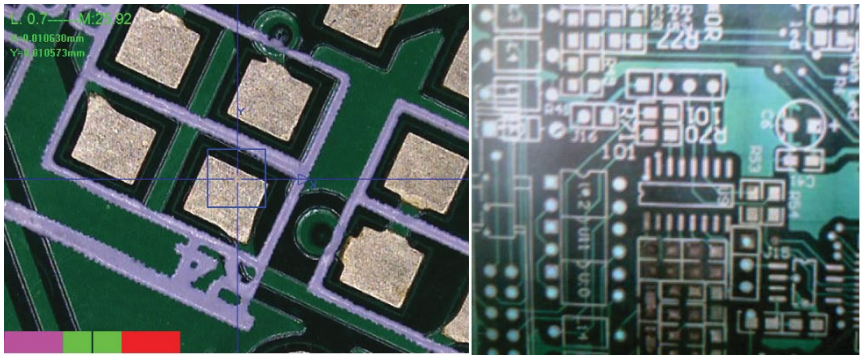
- The software can import “cancel” and “Recover” to make it easier and faster to operate.
- It can easily measure flatness quickly with powerful laser measuring function, and test the small bumps, pits, V-angle and high-precision surface scanning while video and probe cannot test it.
- The software can supply auxiliary light-dimmer indicated function to avoid measuring error caused by light intensity problem and improve measuring accuracy and efficiency.



- The software can input viewport navigation, to be convenient to position and get a test place by clicking middle key.
- The software can supply many function such as accurate focus, quick focus, image height measurement, and the repeatability can reach to 3um(above 2x magnification).
- The software can easily and quickly import and export DXF file and set up coordinate system for auto measurement.
- The software supply multiple running control mode, which make it faster and convenient to position.1.Operate handle; 2. Click middle key in the image window, long-press right key; 3. Click middle key in the drawing window; 4. Move element list window to the primitive; 5. Click the mouse in the running control window; 6. Click middle key in the scan window; 7. Click middle key in the map window; 8. Input coordinate value.
- The image window and drawing window can display the measured elements and marking 2D dimension, which get the result directly.
- The software supply multiple system error correction function, such as: Linear compensation, sector compensation, vertical error compensation, Z axis linear error compensation, lens center offset error compensation, to ensure accuracy can reach to 0.002mm any place in the XY area.
- The software can photograph mosaic the work piece to get a large map, then marke and measure it.
- The software can support to add simple probe based on the video measurement, to realize 3D measurement.
- The software can auto calculate and mark the present magnification and video magnification, and display the pixel measurement value.