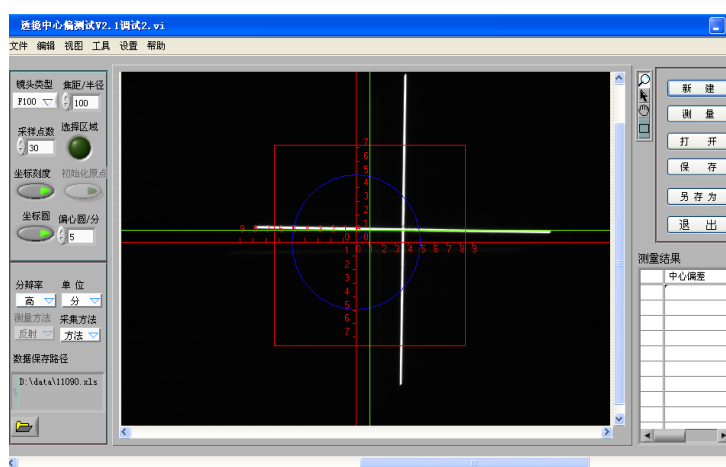


Digital Eccentricity Tester (LensCT-Series)



LensCT Eccentricity Tester is a serial high precision, non-contact testing equipment for Lens centration errors quantitative measurement. They could be used for in-coming/out-going lenses(single lenses or cemented lenses) inspection, also center offset control during the lenses fabrication or assembly. LensCT serial consists of LensCT-VT (transmission mode), LensCT-VTR(Transmission & Reflection mode) for the circle shape lens, and LensCT-HTR for Cylindrical (or rectangular shape) lenses, as well as LensCT-HR for the Mini-lenses(for endoscope lens or fiber-optics lens)。



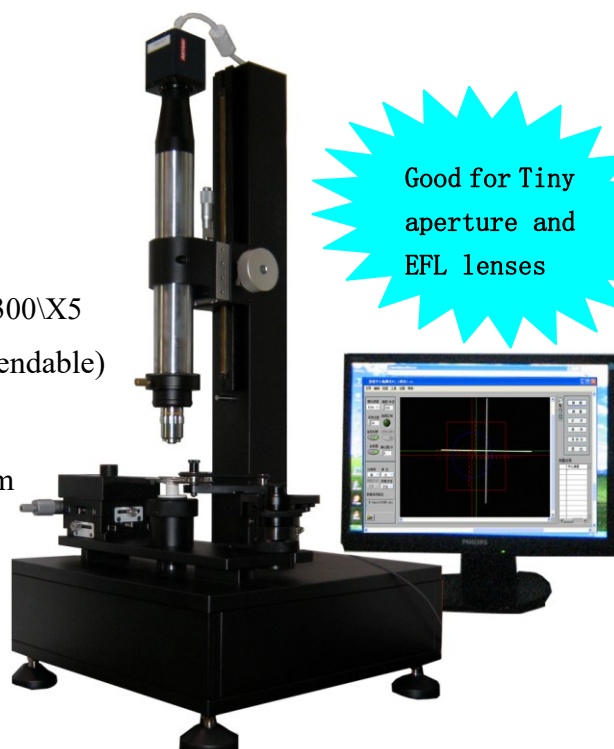
Main Applications:

- ◆ Centration control for lens & lens assembly;
- ◆ Camera lenses centration measurement;
- ◆ Good for mini-lens(small aperture or EFL);
- ◆ Could add the function for EFL testing

- ◆ **Resolution:** 0.1 μ m(or 1")
- ◆ **Objective lenses sets:** F50\F100\F200\F300\X5
- ◆ **Lens holder sets:** Φ 3~ Φ 30mm(Extendable)
- ◆ **High density illuminator:** 220V/150W
- ◆ **Size:** 700X340X300mm
- ◆ **Weight:** ~ 25Kg

Advantages:

- ◆ Auto-measurement, low-skill requirement;
- ◆ With software, directly show the testing result, high efficiency;
- ◆ Could with transmission and reflection measurement;
- ◆ Could extend to EFL testing function



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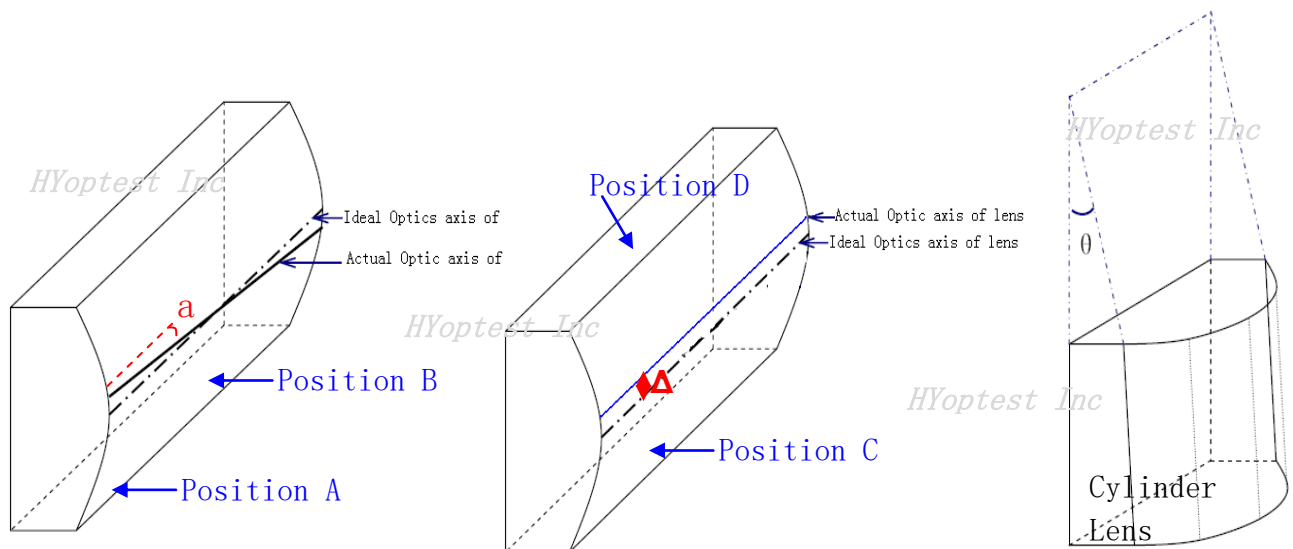
Tel: +86 13850158295; +86 591-8384 1181;

Fax: 0591-8714 3875

Measurement Principle:

According to ISO 10110 the center error is present when the optical and the reference axis of a lens do not coincide. Take the circular lens as example, the lens usually is rotated along the periphery during the measurement, and a parallel light is conducted to the lens, and either pass through (transmission mode) or reflected (reflection mode) by the lens, and generate an image on the CCD camera. When a centration error presents, the image would be different position when the lens rotating. The center error could be calculated based on difference image trace.

For the rectangular cylinder lens, we define the center error as tilting “a”, shift “ Δ ” and wedge “ θ ”. As per the sketch below, we detect the optic axis at position A, B, C and D respectively, the tilting “a” is the image position difference of A and B, and the Shift “ Δ ” is difference of C and D. The wedge “ θ ” is the beam output deviation of both surface.



Products & Description:

| P/N | Test Methods | Test Accuracy | Test range(mm) | Size range(mm) |
|-------------|---------------------------|---------------|----------------------|----------------|
| LensCT-VHT | Transmission | 1um(or 3") | $\pm 3 \sim \pm 450$ | 3-150mm |
| LensCT-VHTR | Transmission & reflection | 1um(or 3") | $\pm 1 \sim \pm 480$ | 3-150mm |

Note: Specs are subject to change without notification