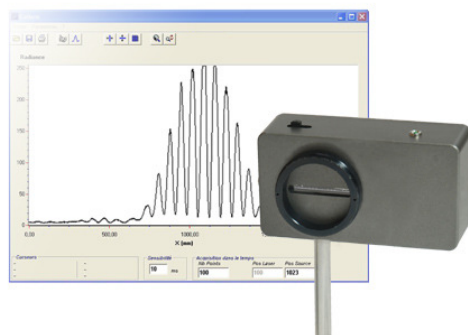


# CCD Caliens Camera, basic ref POF 010 300

## Composition

- 1 CCD camera
- 1 complete software, operating with Windows
- 1 USB cable
- 1 Ø 10-mm rod
- Complete documentation



## Presentation

The Caliens camera is a CCD sensor which allows the measurement of very precise distances. With its **2048 pixels**, we can use it for :

- **The Study of diffraction with 1 slit, 1 hole, Young's slits, Fresnel's mirror and Fresnel's bi-prism**
- **Interferences with N slits.**
- **Study of gratings**
- **Gaussian beams**

## Performances

- Sensor : 2048 pixels (14- $\mu$ m wide)  
(sensitive zone : approx. 30 mm).
- Adjustable integration time : 2 ms to 5 s

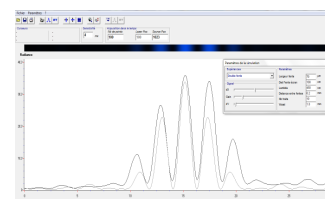
# Some examples of manipulations...

## Interferences Diffraction

With a simple setting (laser + slits), you get your light diagram on the sensitive zone.  
The curve acquisition is instantaneous.

You can refine your settings and display visualisez the « Cardinal sine ».

You can simulate the theoretical curve and make the comparison with the real experimental curve.



## Geometrical optics

The measures of the parameters in geometrical optics are easy: focus, contrast, magnification...

Used for the image, CALIENS is a complete tool for analysis.



## OPTIONAL EXTRA :

### Filters for Caliens Camera

- |  |                  |
|--|------------------|
| Filter, density 0.9                          | <b>POD010021</b> |
| Filtrer, density 3                           | <b>POD010022</b> |
| Calibrated polarizer                         | <b>POD010024</b> |
| Set of 4 filters                             | <b>POD010025</b> |
| (2 polarizers, 2 with neutral density (0.9)) |                  |



### Study of a CCD sensor

Now, with this additional cable, you can explain the principle of CCD photosensitvie sensors and show the relation between the light received by the sensor and the electrical measure.

This cable retrieves the "raw" signals of the sensor, clock, trigger and the signal on an oscilloscope or a C.A.O. interface.

Cable for the study of a CCD sensor **POF010610**



FRENCH CONCEPTION AND MANUFACTURING.