



OPTO ENGINEERING

# PC12030XS | DATASHEET

## Compact ericentric lensfor 1/2" sensors



### SPECIFICATIONS

#### Optical specifications

|                                                        |      |      |
|--------------------------------------------------------|------|------|
| Image circle                                           | (mm) | 4.8  |
| Min sensor size                                        |      | 1/2" |
| Working distance with minimum object size <sup>1</sup> | (mm) | 80   |
| Working distance with maximum object size <sup>1</sup> | (mm) | 20   |
| Viewing angle                                          | (°)  | 24   |
| $wf/N^2$                                               |      | 12   |

#### Mechanical specifications

|                     |      |       |
|---------------------|------|-------|
| Mount               |      | C     |
| Length <sup>3</sup> | (mm) | 116.0 |
| Front Diameter      | (mm) | 381.6 |
| Mass                | (g)  | 2947  |

<sup>1</sup> Working distance: distance between the front end of the mechanics and the object.

<sup>2</sup> The design working f-number ( $wf/N$ ) is specified. The working f-number could be changed using the variable iris

<sup>3</sup> Measured from the front end of the mechanics to the camera flange.

### KEY ADVANTAGES

#### Just one camera

No need for multiple cameras placed around and over the object.

#### Fast image analysis

No image matching software is needed as the picture is not segmented.

#### Single point of view

No perspective effects typical of multi-image systems.

#### Smooth on-line integration

Inspected parts pass unobstructed in the free space below the lens.

**PC pericentric lenses** are unique optics designed to perform complete inspection of objects up to 60 mm in diameter, quickly and reliably.

### FIELD OF VIEW

#### Field of view (diameter x height)

|         |           |             |
|---------|-----------|-------------|
| Minimum | (mm x mm) | 10.0 x 5.0  |
| Maximum | (mm x mm) | 55.0 x 15.0 |

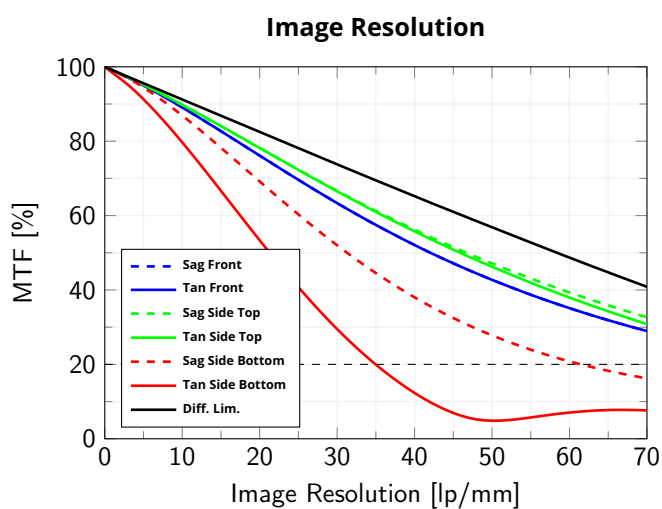
### COMPATIBLE PRODUCTS

Full list of compatible products available [here](#).



A wide selection of innovative machine vision components.

All product specifications and data are subject to change without notice to improve reliability, functionality, design or other. Photos and pictures are for illustration purposes only. Data are reported by design, actual lens performance may vary due to manufacturing tolerances.



Modulation Transfer Function (MTF) vs. Image Resolution, wavelength range 486 nm - 656 nm of cylindrical object of diameter 30 mm and height of 20 mm

### PC IMAGING SETUP

The image of the top of the object and its sides are inscribed into the short side of the camera detector.

The smaller the object diameter, the larger the object height which can be inspected, while short objects can be inspected over a larger diameter.

