PCHI013 | DATASHEET

OPTO ENGINEERING

Hole inspection optics for 1/3" sensors

KEY ADVANTAGES

Perfect focusing of holed objects
Both the walls and the bottom of a cavity are imaged in high resolution

Cavity inspection from the outside
No need to put an optical probe into the hole

Very high field depth
Objects featuring different shapes and dimensions can be imaged by the same lens

Wide viewing angle
Sample surfaces are acquired by the lens under a convenient perspective to clearly display their features

New focusing ring version available
Manually adjusting the focus is never been easier!

New integration with Optotune® liquid lens technology
PCHI AF allows for an extremely fast and repeatable change in focus

REACH DOSSIER PATENTED

PCHI Optics have been developed by Opto Engineering® to easily inspect holes, cavities and containers.

SPECIFICATIONS

Optical specifications

Image circle	(mm)	3.6
Min sensor size		1/3"
Working distance with minimum object size[1]	(mm)	5
Working distance with maximum object size[1]	(mm)	62
Viewing angle	(°)	82
w*f*/*N*[2]		5

Mechanical specifications

Focusing		Manual (lockring)
Mount		C
Length[3]	(mm)	101.9
Outer diameter	(mm)	40.0
Mass	(g)	224

[1] Working distance: distance between the front end of the mechanics and the object.
[2] Working f-number (w*f*/*N*): the real f-number of a lens in operating conditions.
[3] Measured from the front end of the mechanics to the camera flange.

FIELD OF VIEW

Field of view (diameter x height)

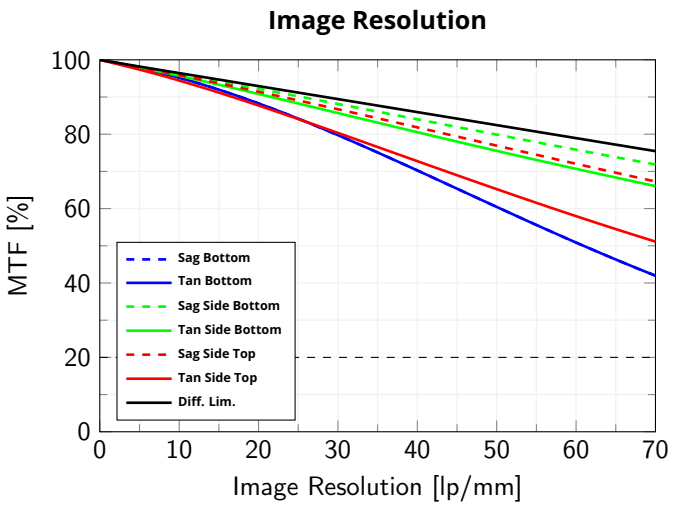
Minimum	(mm x mm)	10.0 x 6.0
Maximum	(mm x mm)	120.0 x 190.0

COMPATIBLE PRODUCTS

Full list of compatible products available *here*.

A wide selection of innovative machine vision components.

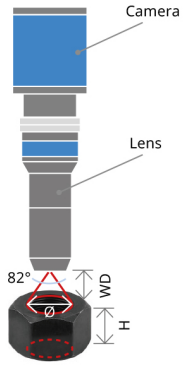
All product specifications and data are subject to change without notice to improve reliability, functionality, design or other. Photos and pictures are for illustration purposes only. Data are reported by design, actual lens performance may vary due to manufacturing tolerances.



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

PCHI IMAGING SETUP

PCHI optics can image cavities whose diameters and thicknesses span over a wide range of values. PCHI series features 82° view angle and can image both the inner walls and the bottom of cavities.



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