

## > New members of our lens family: 10x microscope lenses!



The various microscope lenses from Thermosensorik are optimised with regard to aperture, so that very fast lenses are available for all magnification scales: for a reproduction scale of 1:1 with an aperture of f/1.5 and 40 mm operating distance, furthermore the 2.5:1 lens with f/2 and 21 mm operating distance and the 5:1 lens with f/4 and 14 mm operating distance. The new star amongst the infrared microscope lenses offers tenfold magnification with an aperture of f/8 and alternatively 2.5 mm or 14 mm operating distance.

Only one year ago one thought that the Micro 5x infrared lens reached the physical limit for magnification using infrared light of the SWIR/MWIR range. Meanwhile we are inspired by the imaging performance of the Micro 10x lenses: In connection with a broadband infrared camera they push the limit of spatial resolution to almost incredible 2.2 µm!

If you need a greater or a variable operating distance, macro lenses form an alternative. For a reproduction scale of 1:1 and an aperture of f/4.3 a operating distance of more than 230 mm can be selected. Another advantage of macro lenses is their higher depth of focus in comparison to that of microscope lenses.

## > IR microscope lenses from Thermosensorik

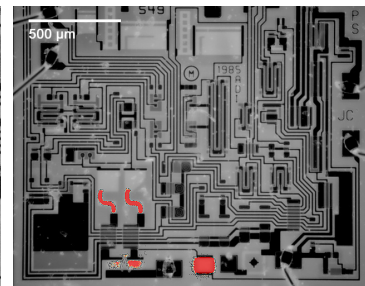
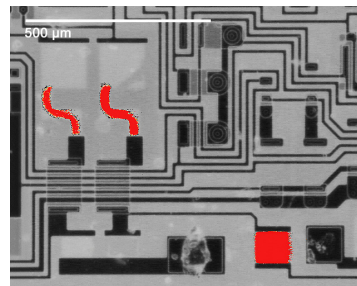
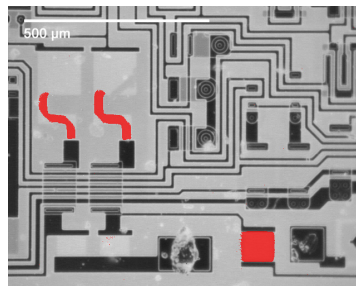
**NEW!**



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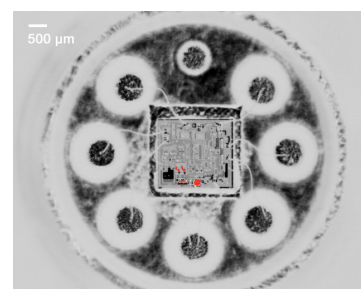
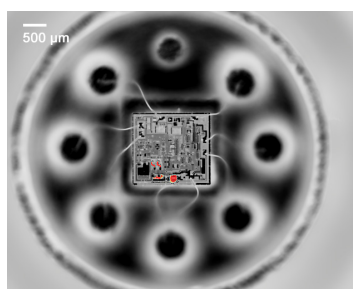
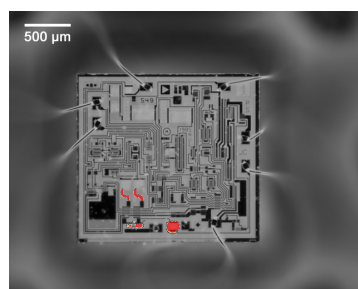
lens type	Micro 10x WD14	Micro 10x WD2.5	Micro 5x
reproduction scale	10 : 1	10 : 1	5 : 1
aperture	f / 8	f / 8	f / 4
operating distance	14 mm	2.5 mm	14 mm
field of view (in mm) for IR-camera CMT 256 M HS IR-camera CMT 384 SM/M IR-camera InSb 320 SM IR-camera InSb 640 SM	1.02 x 1.02 0.92 x 0.69 0.96 x 0.77 0.96 x 0.77	1.02 x 1.02 0.92 x 0.69 0.96 x 0.77 0.96 x 0.77	2.05 x 2.05 1.84 x 1.38 1.92 x 1.54 1.92 x 1.54
optimised for spectral range	3 - 5 $\mu$ m	3 - 5 $\mu$ m	3 - 5 $\mu$ m
mounting to camera	4 hole fixing, optional (against surcharge): bayonet	4 hole fixing, optional (against surcharge): bayonet	4 hole fixing, optional (against surcharge): bayonet



## > IR microscope lenses from Thermosensorik



lens type	Micro 2.5x	Micro 1x	Macro 1x
reproduction scale	2.5 : 1	1 : 1	1 : 1
aperture	f / 2	f / 1.5	f / 4.3
operating distance	21 mm	40 mm	> 230 mm
field of view (in mm) for IR-camera CMT 256 M HS IR-camera CMT 384 SM/M IR-camera InSb 320 SM IR-camera InSb 640 SM	4.10 x 4.10 3.69 x 2.76 3.84 x 3.07 3.84 x 3.07	10.24 x 10.24 9.22 x 6.91 9.60 x 7.68 9.60 x 7.68	10.24 x 10.24 9.22 x 6.91 9.60 x 7.68 9.60 x 7.68
optimised for spectral range	3 - 5 $\mu\text{m}$	3 - 5 $\mu\text{m}$	3 - 5 $\mu\text{m}$
mounting to camera	4 hole fixing, optional (against surcharge): bayonet	4 hole fixing, optional (against surcharge): bayonet	4 hole fixing, optional (against surcharge): bayonet



All mentioned lenses are available from stock (while stocks last).  
Please contact us for further information.

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### Option bayonet

Do you use more than one lens?  
- Then you should opt for the bayonet mount.  
Available in two versions:

Initial equipment (i.e. camera and lens sided, see figure above)

or for one single lens (see figure below).



**NEW!**

### Option turret (lens changer)

Especially when lenses have to be changed frequently and quickly the automatic lens changer (turret) for up to four lenses is the perfect solution.



### Option microscope table

For microscope lenses with a magnification of 2.5x or higher a focus drive is needed for focusing the infrared camera. We recommend a low vibration setup consisting of breadboard, tripod pillar and focus drive.



### Option solid immersion lenses

You need a maximum of spatial resolution?  
- Solid immersion lenses (SIL) may be a solution for your problem.  
SIL are set directly upon the structure that is to be magnified.



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