

MC4K175X-N

Macro lens for 4k linescan cameras, magnification 1.75x, mount M42X1 FD = 10.56

SPECIFICATIONS

Focusing (1)		near	nominal	far
Magnification	(x)	1.793	1.750	1.705

Object field of view (mm x mm)				
with KAI-04050 16 mm diagonal w x h 12.8 x 9.6		7.1 x 5.4	7.3 x 5.5	7.5 x 5.6
with 2k x 10 µm detector 20.48		11.4	11.7	12.0
with KAI-4022/4021 21.5 mm diagonal w x h 15.2 x 15.2		8.5 x 8.5	8.7 x 8.7	8.9 x 8.9
with KAI-08050 22.6 mm diagonal w x h 18.1 x 13.6		10.1 x 7.6	10.3 x 7.8	10.6 x 8.0
with 4k x 7 µm detector 28.67		16.0	16.4	16.8

Optical specifications				
Working distance	(mm)	82.7	83.8	85.0
f/# (wF/#) (2)		6.5 (18)
Distortion typical (max) (3)	(%)	< 0.01	(0.03)	
Field depth (4)	(mm)	0.4		
CTF @ 50 lp/mm	(%)	> 35		
Image side numerical aperture		0.028		
Object side numerical aperture		0.050		

Mechanical specifications				
Length (5)	(mm)	234.5		
Diameter	(mm)	52.0		
Mass	(g)	658		
Mount (6)		M42X1		

NOTES

1. Maximum and minimum magnification changes when focusing.
2. F/# = F-number, wF/# = working F-number, the real F-number of a lens when used as a macro. Lenses with smaller apertures can be supplied on request.
3. Percent deviation of the real image compared to an ideal, undistorted image: typical (average production) values and maximum (guaranteed) values are listed.
4. At the borders of the field depth the image can be still used for measurement but to get a perfectly sharp image only half of the nominal field depth should be taken into account.
5. Measured from the front end of the mechanics to the camera flange; take into account a +/- 2.5 mm tolerance due to the focussing mechanism.

