MC4K200X-N

OPTO ENGINEERING

Macro lens for 4k linescan cameras, magnification 2.00x, mount M42X1 FD = 10.56

SPECIFICATIONS

Focusing (1)		near nominal far			
Magnification	(x)	2.042	2.000	1.955	
Object field of view (mm x mm)					
with KAI-04050 16 mm diagonal w x h 12.8 x 9.6		6.3 x 4.7	6.4 x 4.8	6.5 x 4.9	
with 2k x 10 μm detector 20.48		10.0	10.2	10.5	
with KAI-4022/4021 21.5 mm diagonal w x h 15.2 x 15.2		7.4 x 7.4	7.6 x 7.6	7.8 x 7.8	
with KAI-08050 22.6 mm diagonal w x h 18.1 x 13.6		8.9 x 6.7	9.1 x 6.8	9.3 x 7.0	
with 4k x 7 μm detector 28.67		14.0	14.3	14.7	
Optical specifications					
Working distance	(mm)	77.3	78.1	79.0	
f/# (wF/#) (2)		6.7 (20)			
Distortion typical (max) (3)	(%)	< 0.01 (0.03)			
Field depth (4)	(mm)	0.4			
CTF @ 50 lp/mm	(%)	> 30			
Image side numerical aperture		0.025			
Object side numerical aperture		0.051			
Mechanical specifications					
Length (5)	(mm)	254.4			
Diameter	(mm)	52.0			
Mass	(g)	687			
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.