

## BI-TELECENTRIC LENS FOR DETECTORS UP TO 2/3"



<b>Model:</b>	TC 23 09	
<b>Magnification (X):</b>	1,00 +/- 3%	
<b>Object Field (mm):</b>	1/4" (3,6 x 2,7):	3,6 x 2,7
	1/3" (4,8 x 3,6):	4,8 x 3,6
	1/2" (6,4 x 4,8):	6,4 x 4,8
	1/1.8" (7,13 x 5,37):	7,1 x 5,4
	2/3" (8,8 x 6,6):	8,8 x 6,6
<b>Working Distance (mm):</b>	63,3 +/- 2	
<b>Working F-number:</b>	11	
<b>MTF @70 lp/mm (%):</b>	> 25	
<b>Field Depth (mm):</b>	1,0 @ F/ 11	
<b>Image side N.A.:</b>	0,045	
<b>Object side N.A.:</b>	0,045	
<b>Telecentricity (degree):</b>	< 0,08	
<b>Distortion (%):</b>	< 0,08	
<b>Mount:</b>	C	
<b>Length (mm):</b>	65,0	
<b>Maximum external diameter (mm):</b>	28,0	
<b>Weigh (g):</b>	120	

### ACCESSORIES AND OPTIONS:



**Collimated/Telecentric illumination:**  
compatible with LTCL23 illuminator;  
green light suggested.



**Coaxial illumination:**  
not available.



**Back Light illumination:**  
Compatible with LTBK36 illuminator.



**Clamping Mechanics:**  
the lens is light and can be directly  
held by the camera.

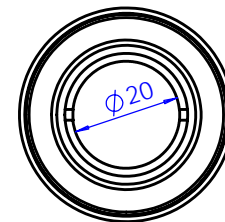
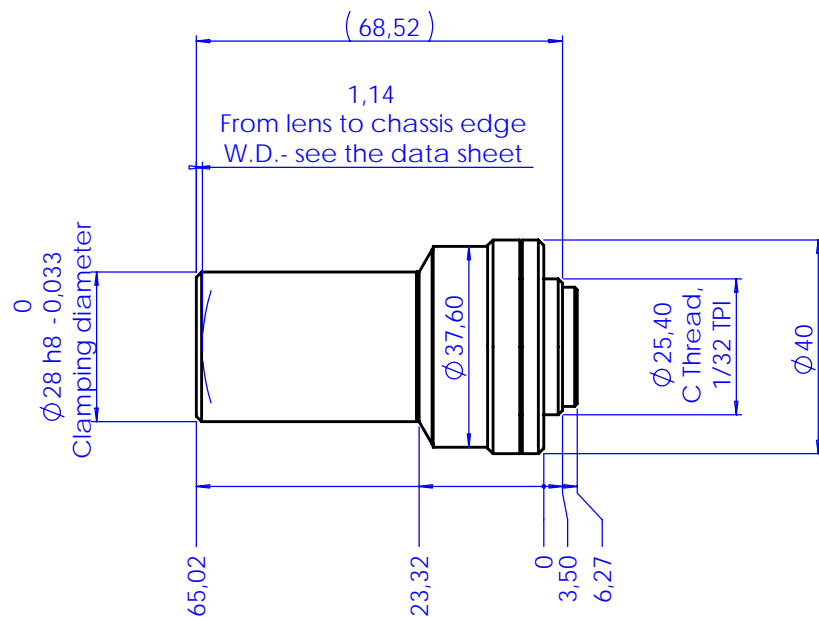


**Direct illumination:**  
compatible with LTRN23 diffusive  
anular illuminators.



**Filters:**  
filter caps available on request.

Rev No.	Description	Date	Name
A	Layout	07/06/05	A.Vismara
B	Redesign: inox C thread, brand ring	25/09/08	A.Vismara



Material	N.A.		Mass	0.160 kg	Scale	1:1	
Surface treatment	N.A.		Project-Prod.Item/Instrument Telecentric lens 23 09				
Geometrical tolerance (ISO 2768-2)		Class	K	Undimensioned bevels	1x45°	Description ASSEMBLY	
Linear tolerance (ISO 2768-2)		Class	m	Undimensioned radii	R 0.5		
0.5	>3-	>6-	>30-	>120	>400-	>1000	>2000
+3	6	30	120	+400	1000	+2000	+4000
±0.1	±0.1	±0.2	±0.3	±0.5	±0.8	±1.2	±2
www.opto-engineering.com		Date	Name	Designed	07/06/05	A.Vismara	Draw No.
		Draw	25/09/08	A.Vismara	Checked	X	C. Sedazzari
		Reproduction forbidden without specific authorization		Drawing No.		02009-0-B	
				Sheet		1/1	