

# ZERO DISTORTION MACRO LENSES



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## MC3-03X:

### 3X TO 0,3X MULTI-CONFIGURATION MACRO



**MC3-03X Zero Distortion MACRO** lens is a non-zooming Macro lens used to look at different object sizes: from 3 up to 26 mm on a 2/3" detector (and proportionally less on smaller size detectors).

By means of an adjustable knob, the desired magnification can be set and the focus adjusted: once the best focus is found, the moving element can be blocked by a screw-knob.

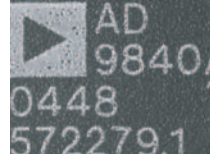
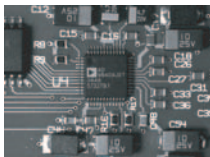
With additional spacers, included in the product package, it is possible to select the required range of magnification.

As the magnification increases, the F-number becomes higher maintaining a good field depth without significant compromises on image resolution and brightness.

Also, while the magnification changes, the distortion remains nearly ZERO, making this lens perfectly adequate for measurement applications.

All these features make this component ideal for machine vision laboratories and prototyping purposes.

Number of spacers	Magnification Range X	W. D. (mm)	F-number	Field Depth (mm)	Distortion	DETECTOR/OBJECT FIELD SIZE										
						1/4"		1/3"		1/2"		1/1.8"		2/3"		
						w	h	w	h	w	h	w	h	w	h	
3	max	3	28	20	<0,01%	3,6	3,6	4,8	3,6	6,4	4,8	7,13	5,37	8,8	6,6	
	min	2,5	9	18	0,3	<0,01%	1,2	0,9	1,6	1,2	2,13	1,6	2,38	1,79	2,93	2,2
2	max	2,3	30,5	17	0,3	<0,01%	1,44	1,08	1,92	1,44	2,56	1,92	2,85	2,15	3,52	2,64
	min	1,3	11	12	0,6	<0,01%	1,57	1,17	2,09	1,57	2,78	2,09	3,1	2,33	3,83	2,87
1	max	1,6	35	14	0,5	<0,01%	2,25	1,69	3	2,25	4	3	4,46	3,36	5,5	4,13
	min	0,7	32,5	9	1,4	<0,02%	2,77	2,08	3,69	2,77	4,92	3,69	5,48	4,13	6,67	5,08
0	max	1	47	10	0,7	<0,02%	5,14	3,86	6,86	5,14	9,14	6,86	10,2	7,67	12,6	9,43
	min	0,333	84	7	3,5	<0,05%	3,6	2,7	4,8	3,6	6,4	4,8	7,13	5,37	8,8	6,6
							10,8	8,11	14,4	10,8	19,2	14,4	21,4	16,1	26,4	19,8



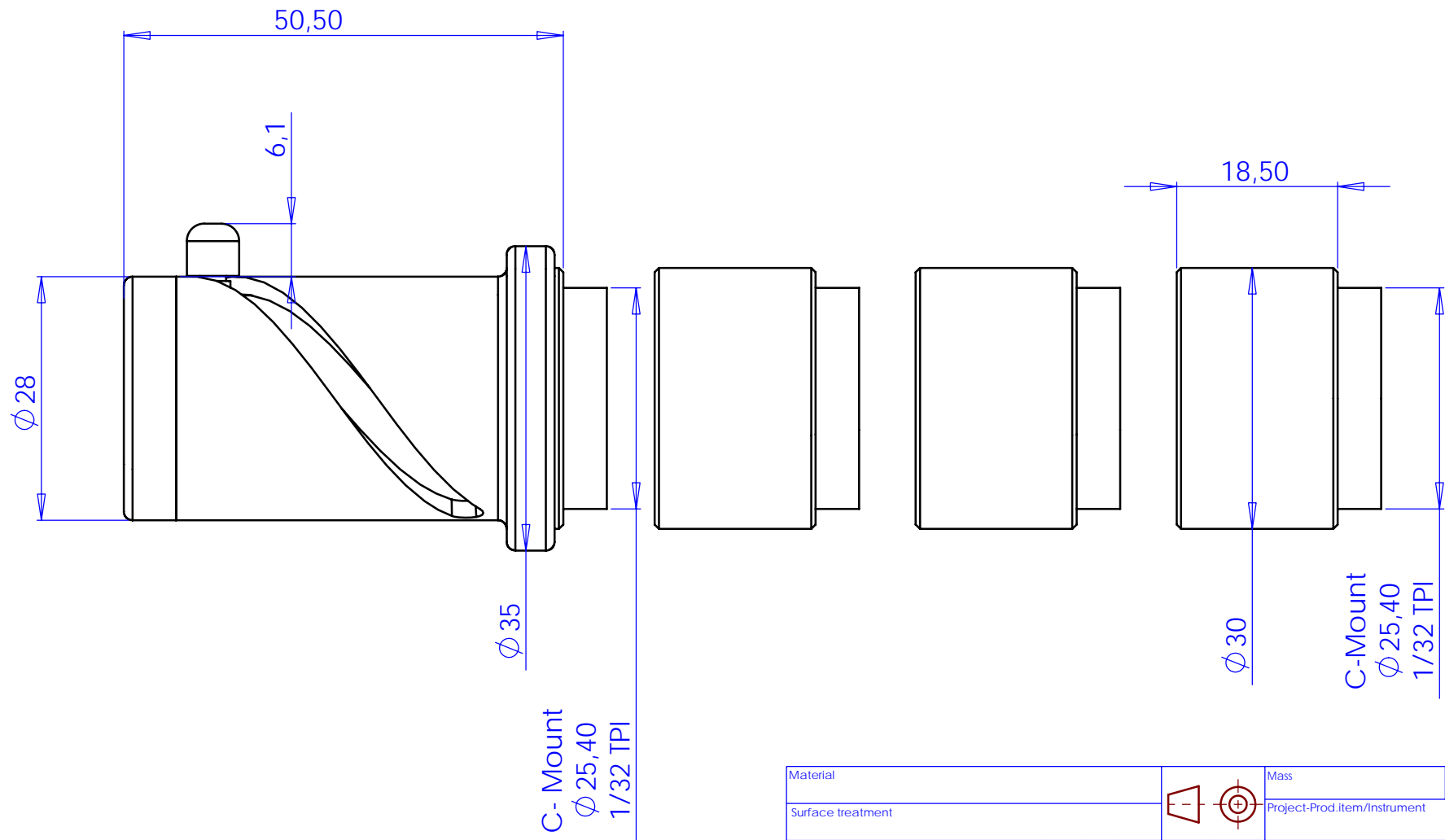
#### MOST SUCCESSFUL APPLICATIONS:

- Precision measurement of mechanical parts
- Electronic components and boards inspection
- Web and tissue inspection
- Printing industry
- Microbiology
- Forensic Sciences
- Videomicroscopy

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Rev No.	Description	Date	Name



Material			Mass	Scale 2:1																																				
Surface treatment			Project-Prod.Item/Instrument																																					
Geometrical tolerance (ISO 2768-2) <table border="1"> <thead> <tr> <th>Linear tolerance (ISO 2768-2)</th> <th>Class</th> <th>K</th> <th>Undimensioned bevels</th> <th>1x45°</th> <th rowspan="2">Description MC 0.33X - 3X</th> </tr> </thead> <tbody> <tr> <td>0.5</td> <td>&gt;3-</td> <td>&gt;6-</td> <td>&gt;30-</td> <td>&gt;120</td> <td>&gt;400-</td> <td>&gt;1000</td> <td>&gt;2000</td> <td rowspan="2">Undimensioned radii</td> <td rowspan="2">R 0.5</td> </tr> <tr> <td>+3</td> <td>6</td> <td>30</td> <td>120</td> <td>+400</td> <td>+1000</td> <td>+2000</td> <td>+4000</td> </tr> <tr> <td>±0.1</td> <td>±0.1</td> <td>±0.2</td> <td>±0.3</td> <td>±0.5</td> <td>±0.8</td> <td>±1.2</td> <td>±2</td> <td colspan="2"></td> </tr> </tbody> </table>		Linear tolerance (ISO 2768-2)	Class	K	Undimensioned bevels	1x45°	Description MC 0.33X - 3X	0.5	>3-	>6-	>30-	>120	>400-	>1000	>2000	Undimensioned radii	R 0.5	+3	6	30	120	+400	+1000	+2000	+4000	±0.1	±0.1	±0.2	±0.3	±0.5	±0.8	±1.2	±2			Date		Name	Drawing No.	Sheet
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