

# ZUIKO MACRO 20<sup>mm</sup> F3.5/OBJECTIVE LENS MOUNT PM-MTob



## Characteristics

- This high-resolution macro lens is designed for 4X~12X magnifications (object sizes 8×5mm~3×2mm).

## Applications

- High-magnification macrophotography

## Notes • Related Units

- This lens must be used in conjunction with the Auto Bellows (p.512) and Objective Lens Mount PM-MTob.
- Lens hood is not necessary.

## Specifications

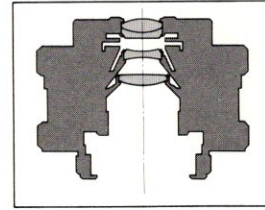
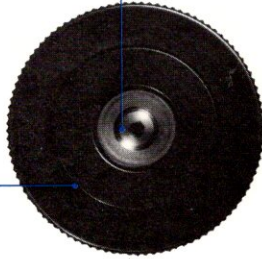
Angle of view	Optical construction Element-Group	Diaphragm	F/stop range	Min. focus	Min. photographic range	Focusing	Weight (oz.)	Length (in.)	Max. diameter (in.)	Hood	Filter
9° at highest mag.	4-3	Manual	3.5-16	—	max. 8 × 5mm min. 3 × 2mm	W/ Auto Bellows & PM-MT ob	70g (2.5)	20mm (0.8)	32mm (1.2)	Not necessary	21mm Slide-on

# OLYMPUS

# OM SYSTEM ZUIKO MACRO 20<sup>mm</sup> F3.5/OBJECTIVE LENS MOUNT PM-MTob

## ● Zuiko Lens

3 groups 4 elements  
Angle of view: 9° at high magnification

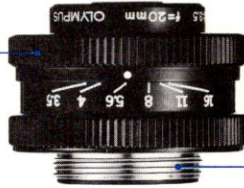


## ● Front Mount Ring

Filter size: 21mmφ,  
slide-on  
Hood: not necessary

## ● Aperture Ring

Manual: stopped-down metering is required.

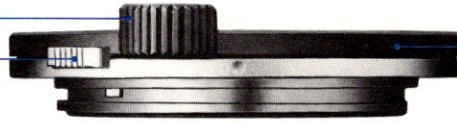


## ● Screw Mount

Connects to Objective Lens Mount PM-MTob.

## ● Non-slip Knob

Apply finger to this knob when attaching /detaching the PM-MTob to and from the Auto Bellows.



## ● Objective Lens Mount PM-MTob

This mounting adapter is necessary to connect the Macro 20mm or Macro 38 mm lens to the Auto Bellows.

## ● Release Button

To mount the PM-MTob to the Auto Bellows, press this button and turn 70° clockwise.

Actual size

## Reference Table for Auto Bellows

Image magnification	Bellows length	Lens extension distance	Distance from film to subject	Distance from lens to subject	Subject area covered	Exposure factor
4.3	3.6 cm	68 mm	12.9 cm	2.1 cm	5.6 × 8.4 mm	27.9 ×
4.5	4.0	73	13.3	2.1	5.3 × 8.0	30.3 ×
5.0	5.0	83	14.3	2.1	4.8 × 7.2	36.0 ×
5.5	6.0	93	15.2	2.0	4.4 × 6.5	42.3 ×
6.0	7.0	103	16.2	2.0	4.0 × 6.0	49.0 ×
6.5	8.0	113	17.2	2.0	3.7 × 5.5	56.3 ×
7.0	9.0	123	18.2	1.9	3.4 × 5.1	64.0 ×
7.5	10.0	133	19.2	1.9	3.2 × 4.8	72.3 ×
8.0	11.0	143	20.1	1.9	3.0 × 4.5	81.0 ×

Image magnification	Bellows length	Lens extension distance	Distance from film to subject	Distance from lens to subject	subject area covered	Exposure factor
8.5	12.0 cm	153 mm	21.1 cm	1.9 cm	2.8 × 4.2 mm	90.3 ×
9.0	13.0	163	22.1	1.9	2.7 × 4.0	100.0 ×
9.5	14.0	173	23.1	1.9	2.5 × 3.8	110.3 ×
10.0	15.0	183	24.1	1.9	2.4 × 3.6	121.0 ×
10.5	16.0	193	25.1	1.8	2.3 × 3.4	132.3 ×
11.0	17.0	203	26.1	1.8	2.2 × 3.3	144.0 ×
11.5	18.0	213	27.1	1.8	2.1 × 3.1	156.3 ×
12.0	19.0	223	28.1	1.8	2.0 × 3.0	169.0 ×
12.4	19.8	231	28.9	1.8	1.9 × 2.9	179.2 ×