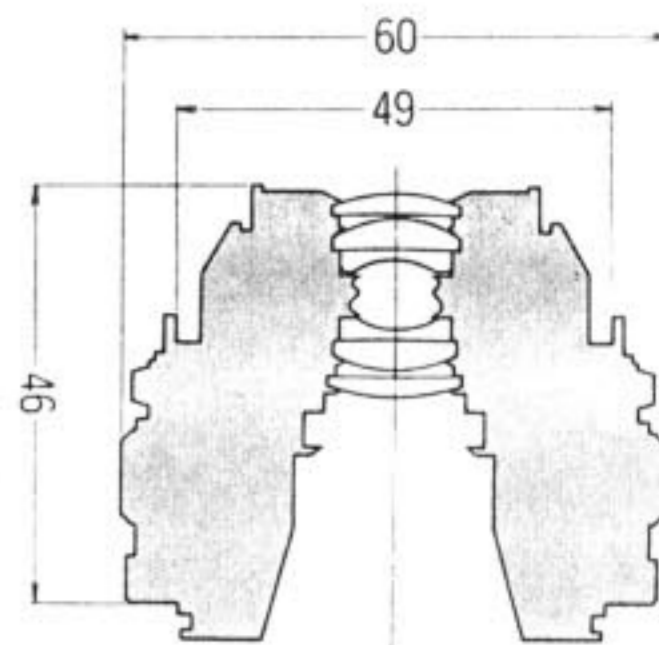
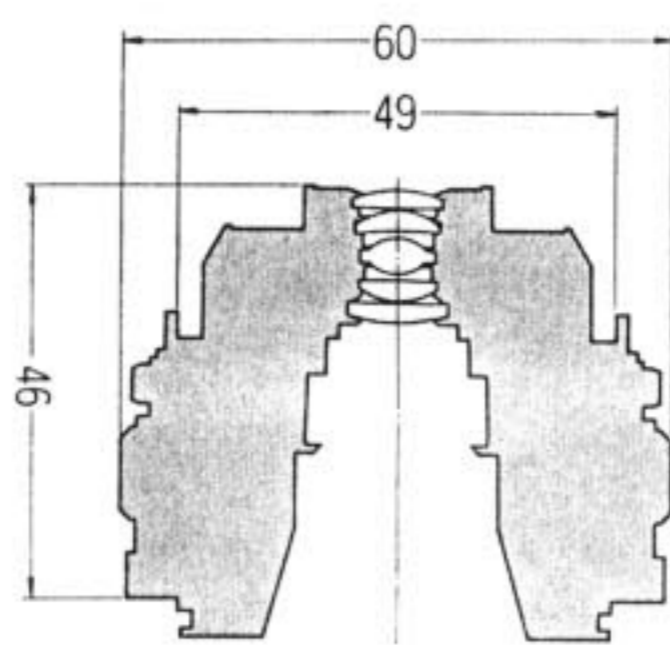


ZUIKO AUTO-MACRO 20mm 1:2

ZUIKO AUTO-MACRO 38mm 1:2.8



These macro lenses feature the world's first automatic diaphragm operation for high magnification works in conjunction with the OM System macrophoto units.

Ces optiques macro autorisent la commande automatique du diaphragme, une première mondiale, pour les travaux de forts agrandissements réalisés en combinaisons avec les unités macrophoto du Système OM.

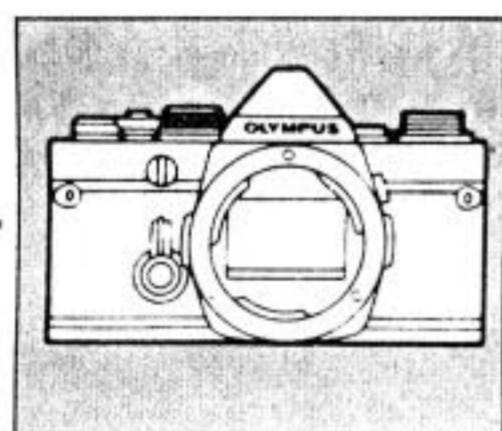
Diese Makroobjektive besitzen der Welt erste Blendautomatik für Großformat-Vergrößerungsarbeiten zusammen mit den Makrofoto-Einheiten des OM-Systems.

Estos macroobjetivos son los primeros en el mundo de funcionamiento automático del diafragma para trabajos de gran aumento en combinación con las unidades de macrofotografía del Sistema OM.

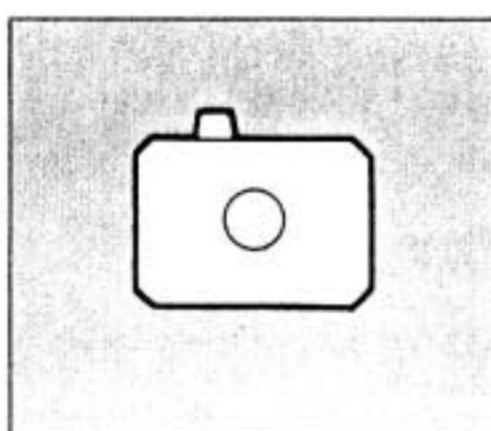
Combinations



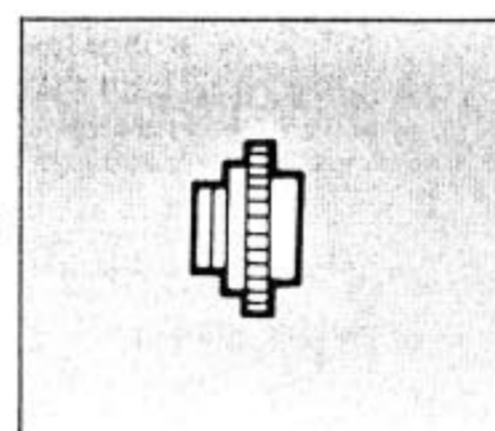
Varimag FINDER



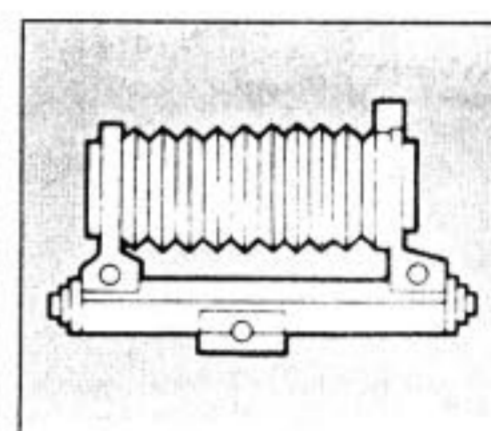
OM-2N
OM-1N



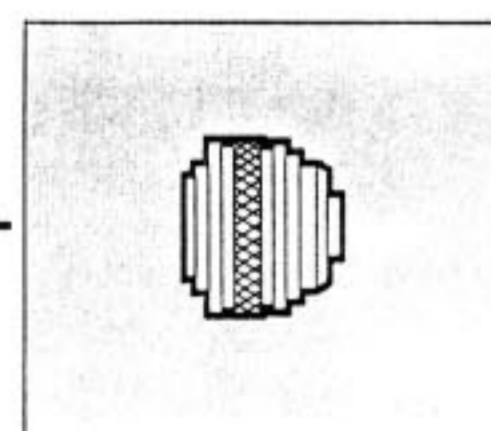
Focusing Screen 1-4



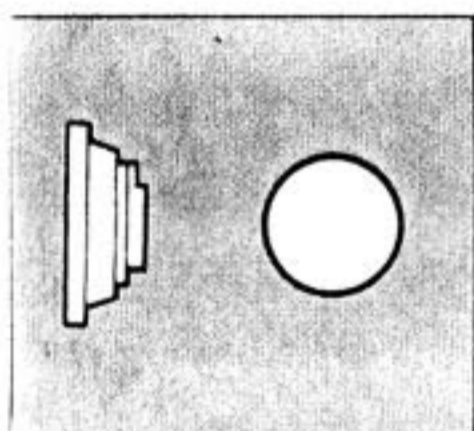
Auto Extension Tube 14



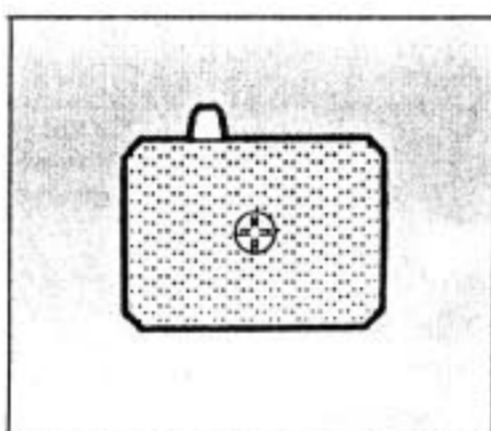
Auto Bellows



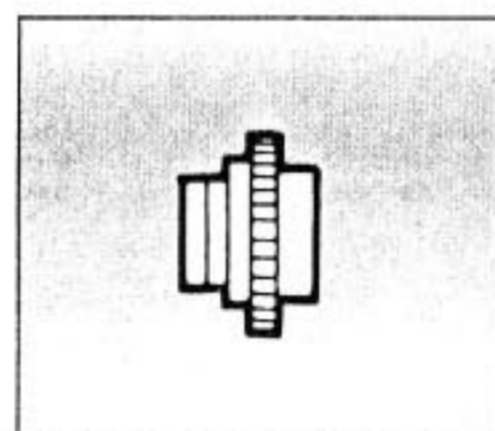
Macro 20mm F2



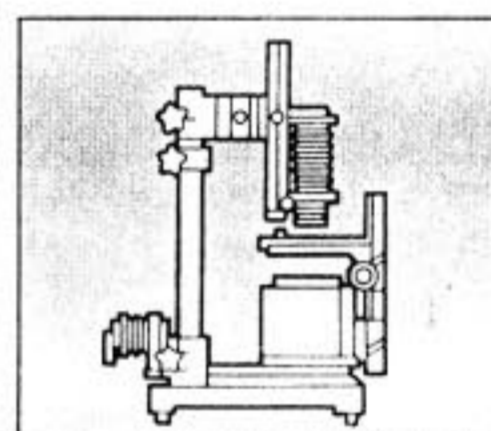
Dioptic Correction Lens 1
Eyecup 1



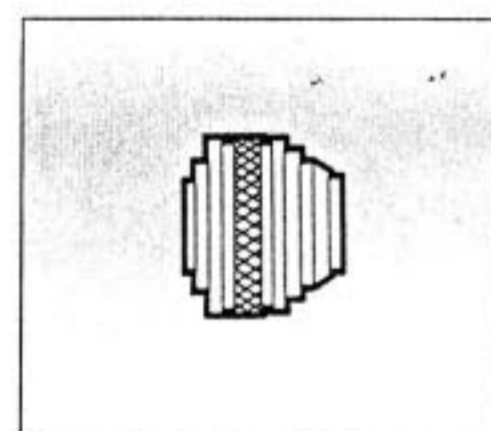
Focusing Screen 1-11



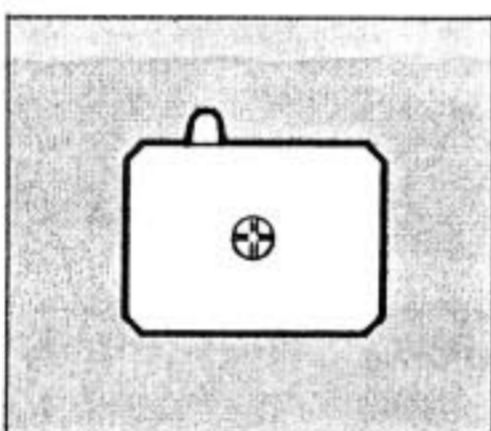
Auto Extension Tube 25



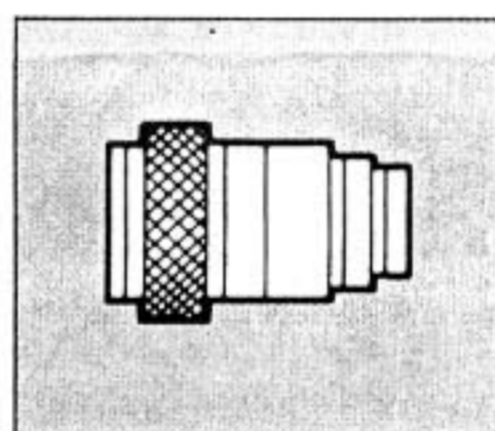
Macrophotographic Equipment PMT-33



Macro 38mm F2.8



Focusing Screen 1-12



Telescopic Auto Extension Tube 65 ~ 116

Specifications

Caractéristiques

| | Macro 20mm 1:2 | Macro 38mm 1:2.8 |
|---|---|--|
| Focal length Focale | 20 mm | 38 mm |
| Angle of view Angle de champ | 9° (at high magnification) 9° (à fort grossissement) | |
| Optical construction Construction optique | 6 elements in 4 groups, multi-coated 6 lentilles en 4 groupes, traitement multi-couches | |
| Diaphragm operation Présélection de diaphragme | Automatic Automatique | |
| F/stop range Ouverture | 2 ~ 16 F2 à 16 | 2.8 ~ 22 F2,8 à 22 |
| Minimum field size Cadrage minimal | Max. 5.7 x 8.6mm (4.2x) Min. 1.8 x 2.6mm (13.6x) | Max. 14 x 21mm (1.7x) Min. 3.6 x 5.4mm (6.7x) |
| Focusing Mise au point | With Auto Extension Tube 14, 25, 65 ~ 116 or Auto Bellows à l'aide de tube-allonge 14, 25, 65 ~ 116 ou soufflet-auto | |
| Fine-focusing Réglage fin de mise au point | With direct helicoid built into lens par rampe hélicoïdale du objectif | |
| Length Longueur | 46mm (1.8 in.) | |
| Maximum diam. Diamètre hors tout | 60mm (2.4 in.) | |
| Weight Poids | 170g (6.0 oz.) | |

Technische Daten

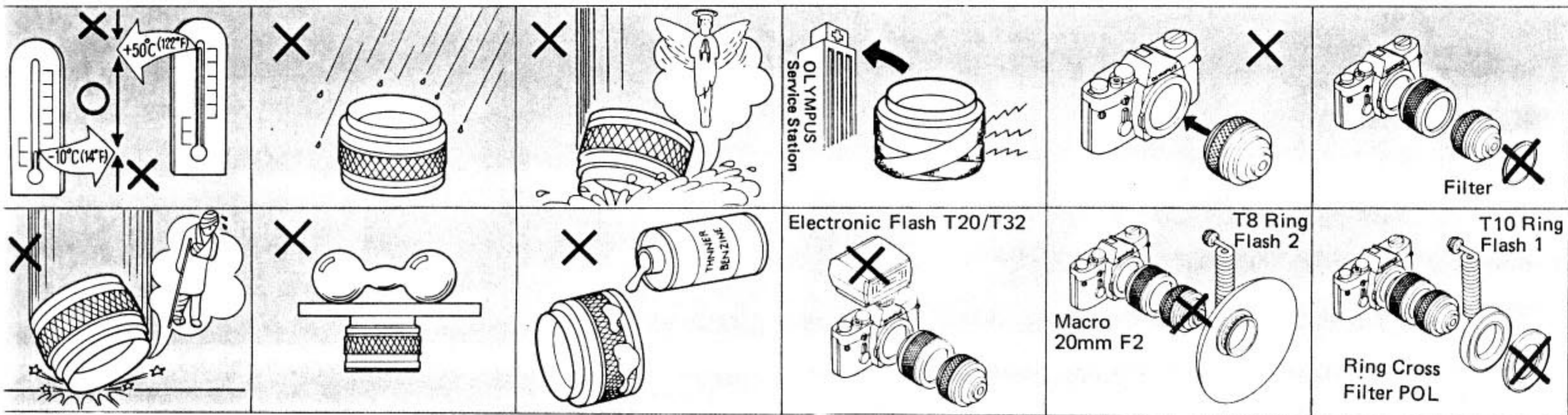
Especificaciones

| | Macro 20mm 1:2 | Macro 38mm 1:2.8 |
|---|--|--|
| Brennweite Distancia focal | 20mm | 38mm |
| Bildwinkel Angulo de visión | 9° (bei stärkster Vergrößerung) 9° (con gran ampliación) | |
| Optische Bauart Construcción óptica | 6 Linsen in 4 Gruppen, mehrschicht vergütet 6 elementos en 4 grupos (multicapas) | |
| Blendensteuerung Diafragma | Automatisch Función automática | |
| Blendenbereich Aberturas | 1:2 bis 1:16 2 hasta 16 | 1:2,8 bis 1:22 2,8 hasta 22 |
| Kleinste Objektfeld Campo fotográfico mínimo | Max. 5,7 x 8,6mm (4,2x) Min. 1,8 x 2,6mm (13,6x) | Max. 14 x 21mm (1,7x) Min. 3,6 x 5,4mm (6,7x) |
| Scharfeinstellung Enfoque | Mit Auto Zwischenring 14, 25, 65 ~ 116 od. Balgengerät Con Tubo Extensión Automático 14, 25, 65 ~ 116 o Fuelle Automático | |
| Feinscharfeinstellung Enfoque micro metrico | Schnecken gang Helicoidal | |
| Baulänge Longitud | 46mm | |
| Maximaler Durchmesser Diámetro máximo | 60mm | |
| Gewicht Peso | 170g | |



ZUIKO AUTO-MACRO 20mm 1:2/ZUIKO AUTO-MACRO 38mm 1:2.8

Care and storage/Entretien et rangement/Pflege und Lagerung/Cuidado y conservación



X : NO
O : YES

With Auto Bellows/avec Soufflet-auto/mit Balgengerät;/con Fuelle Automático

| Lens | Lens Position | Subject Area ¹⁾ Covered (mm) | Magnification ²⁾ | Scale (mm) ³⁾ | | Distance from lens ⁴⁾ to subject (cm) | |
|-------------------------|---------------|---|---|--|---|--|--|
| | | | | Scale (mm) ³⁾ | Distance from lens ⁴⁾ to subject (cm) | | |
| Zuiko Macro 135mm F4.5 | Normal | ∞ 360 180 120 90 72 60 51.4 45 40 36 30 25.7 22.5 20 18 16.4 15 13.8 12.9 12 10.3 9 8 7.2 6.5 6 5.5 5.1 4.8 4 3.6 3.3 3.0 2.7 | 0-1 0-2 0-3 0-4 0-5 0-6 0-7 0-8 0-9 1-0 1-2 1-4 1-6 1-8 2-0 2-2 2-4 2-6 2-8 3-0 3-5 4-0 4-5 5-0 5-5 6-0 6-5 7-0 8-0 9-0 10-0 11-0 12-0 13-0 | 98 111-5 125 138-5 142 165 179 192-5 206 229 231 | 144 77-1 54-6 43-4 36-6 32-1 28-4 25-5 24-6 21-1 | | |
| Zuiko Macro 1:1 80mm F4 | Normal | ∞ 360 180 120 90 72 60 51.4 45 40 36 30 25.7 22.5 20 18 16.4 15 13.8 12.9 12 10.3 9 8 7.2 6.5 6 5.5 5.1 4.8 4 3.6 3.3 3.0 2.7 | 0-1 0-2 0-3 0-4 0-5 0-6 0-7 0-8 0-9 1-0 1-2 1-4 1-6 1-8 2-0 2-2 2-4 2-6 2-8 3-0 3-5 4-0 4-5 5-0 5-5 6-0 6-5 7-0 8-0 9-0 10-0 11-0 12-0 13-0 | 68 79 78 86 94 102 110 118 126 134 142 150 158 174 190 206 221 231 | 84-3 44-4 31-1 24-4 20-4 17-7 15-8 14-4 13-3 12-4 11-1 10-2 9-4 8-9 8-4 8-2 | | |
| Zuiko Macro 38mm F2.8 | Normal | ∞ 360 180 120 90 72 60 51.4 45 40 36 30 25.7 22.5 20 18 16.4 15 13.8 12.9 12 10.3 9 8 7.2 6.5 6 5.5 5.1 4.8 4 3.6 3.3 3.0 2.7 | 0-1 0-2 0-3 0-4 0-5 0-6 0-7 0-8 0-9 1-0 1-2 1-4 1-6 1-8 2-0 2-2 2-4 2-6 2-8 3-0 3-5 4-0 4-5 5-0 5-5 6-0 6-5 7-0 8-0 9-0 10-0 11-0 12-0 13-0 | 68 72 75 87 95 114 133 152 171 190 209 228 231-4 | 4-6-5 4-4 4-3 4-2 4-0 3-9 3-8 3-7 3-6 3-6 3-5-3-5 | | |
| Zuiko Macro 20mm F2 | Normal | ∞ 360 180 120 90 72 60 51.4 45 40 36 30 25.7 22.5 20 18 16.4 15 13.8 12.9 12 10.3 9 8 7.2 6.5 6 5.5 5.1 4.8 4 3.6 3.3 3.0 2.7 | 0-1 0-2 0-3 0-4 0-5 0-6 0-7 0-8 0-9 1-0 1-2 1-4 1-6 1-8 2-0 2-2 2-4 2-6 2-8 3-0 3-5 4-0 4-5 5-0 5-5 6-0 6-5 7-0 8-0 9-0 10-0 11-0 12-0 13-0 | 68 73 83 93 109 123 143 163 183 203 223 | 2-0-2-0 2-0 1-9 1-9 1-9 1-8 1-8 1-8 1-8 1-8 1-8 1-8 | | |

Objektiv / Position de l'objectif / 1) Surface couverte du sujet en mm. / 2) Grossissement / 3) Echelle / 4) Distance de l'objectif au sujet (cm)

With Telescopic Auto Extension Tube 65 ~ 116/avec Tube-allonge 65 ~ 116/mit Auto Zwischenring 65 ~ 116/con Tubo Extensión Automático 65 ~ 116

| Lens | Lens Position | Subject Area ¹⁾ Covered (mm) | Magnification ²⁾ | Tube length ⁵⁾ (mm) | | Distance from lens ⁴⁾ to subject (cm) | |
|--|---------------|---|---|---------------------------------------|--|--|--|
| | | | | Tube length ⁵⁾ (mm) | Distance from lens ⁴⁾ to subject (cm) | | |
| Zuiko Macro 135mm F4.5 | Normal | ∞ 360 180 120 90 72 60 51.4 45 40 36 30 25.7 22.5 20 18 16.4 15 13.8 12.9 12 10.3 9 8 7.2 6.5 6 5.5 5.1 4.8 4 3.6 3.3 3.0 2.7 | 0-1 0-2 0-3 0-4 0-5 0-6 0-7 0-8 0-9 1-0 1-2 1-4 1-6 1-8 2-0 2-2 2-4 2-6 2-8 3-0 3-5 4-0 4-5 5-0 5-5 6-0 6-5 7-0 8-0 9-0 10-0 11-0 12-0 13-0 | 65 78 92 106 116 - helicoid | 144 77-1 54-6 43-4 | | |
| Zuiko Macro 1:1 80mm F4 | Normal | ∞ 360 180 120 90 72 60 51.4 45 40 36 30 25.7 22.5 20 18 16.4 15 13.8 12.9 12 10.3 9 8 7.2 6.5 6 5.5 5.1 4.8 4 3.6 3.3 3.0 2.7 | 0-1 0-2 0-3 0-4 0-5 0-6 0-7 0-8 0-9 1-0 1-2 1-4 1-6 1-8 2-0 2-2 2-4 2-6 2-8 3-0 3-5 4-0 4-5 5-0 5-5 6-0 6-5 7-0 8-0 9-0 10-0 11-0 12-0 13-0 | 65 69 77 85 93 101 109 116 - helicoid | 20-4 17-7 15-8 14-4 13-3 12-4 11-4 | | |
| Zuiko Macro 1:1 80mm F4 + Close-Up Lens 80mm | Normal | ∞ 360 180 120 90 72 60 51.4 45 40 36 30 25.7 22.5 20 18 16.4 15 13.8 12.9 12 10.3 9 8 7.2 6.5 6 5.5 5.1 4.8 4 3.6 3.3 3.0 2.7 | 0-1 0-2 0-3 0-4 0-5 0-6 0-7 0-8 0-9 1-0 1-2 1-4 1-6 1-8 2-0 2-2 2-4 2-6 2-8 3-0 3-5 4-0 4-5 5-0 5-5 6-0 6-5 7-0 8-0 9-0 10-0 11-0 12-0 13-0 | 65 74-8 87 100 112 116 - helicoid | 86 79 71 66 62 59 | | |
| Zuiko Macro 38mm F2.8 | Normal | ∞ 360 180 120 90 72 60 51.4 45 40 36 30 25.7 22.5 20 18 16.4 15 13.8 12.9 12 10.3 9 8 7.2 6.5 6 5.5 5.1 4.8 4 3.6 3.3 3.0 2.7 | 0-1 0-2 0-3 0-4 0-5 0-6 0-7 0-8 0-9 1-0 1-2 1-4 1-6 1-8 2-0 2-2 2-4 2-6 2-8 3-0 3-5 4-0 4-5 5-0 5-5 6-0 6-5 7-0 8-0 9-0 10-0 11-0 12-0 13-0 | 65 81 100 116 - helicoid | 4-2 4-0 3-9 3-8 | | |
| Zuiko Macro 20mm F2 | Normal | ∞ 360 180 120 90 72 60 51.4 45 40 36 30 25.7 22.5 20 18 16.4 15 13.8 12.9 12 10.3 9 8 7.2 6.5 6 5.5 5.1 4.8 4 3.6 3.3 3.0 2.7 | 0-1 0-2 0-3 0-4 0-5 0-6 0-7 0-8 0-9 1-0 1-2 1-4 1-6 1-8 2-0 2-2 2-4 2-6 2-8 3-0 3-5 4-0 4-5 5-0 5-5 6-0 6-5 7-0 8-0 9-0 10-0 11-0 12-0 13-0 | 65 70 90 110 116 - helicoid | 1-9 1-9 1-9 1-8 | | |

5) Longueur de tube-allonge (mm) / Länge des Auto Zwischenring (mm) / Longitud de Tubo Extensión (mm)

With Auto Extension Tube 14 (25)/avec Tube-allonge 14 (25)/mit Auto Zwischenring 14 (25)/con Tubo Extensión Automático 14 (25)

| Lens | Lens Position | Subject Area ¹⁾ Covered (mm) | Magnification ²⁾ | Tube length ⁵⁾ (mm) | | Distance from lens ⁴⁾ to subject (cm) | |
|-----------------------|---------------|---|---|--------------------------------|--|--|--|
| | | | | Tube length ⁵⁾ (mm) | Distance from lens ⁴⁾ to subject (cm) | | |
| Zuiko Macro 38mm F2.8 | Normal | ∞ 360 180 120 90 72 60 51.4 45 40 36 30 25.7 22.5 20 18 16.4 15 13.8 12.9 12 10.3 9 8 7.2 6.5 6 5.5 5.1 4.8 4 3.6 3.3 3.0 2.7 | 0-1 0-2 0-3 0-4 0-5 0-6 0-7 0-8 0-9 1-0 1-2 1-4 1-6 1-8 2-0 2-2 2-4 2-6 2-8 3-0 3-5 4-0 4-5 5-0 5-5 6-0 6-5 7-0 8-0 9-0 10-0 11-0 12-0 13-0 | 14 14 - helicoid | 5-1 5-0 | | |
| Zuiko Macro 20mm F2 | Normal | ∞ 360 180 120 90 72 60 51.4 45 40 36 30 25.7 22.5 20 18 16.4 15 13.8 12.9 12 10.3 9 8 7.2 6.5 6 5.5 5.1 4.8 4 3.6 3.3 3.0 2.7 | 0-1 0-2 0-3 0-4 0-5 0-6 0-7 0-8 0-9 1-0 1-2 1-4 1-6 1-8 2-0 2-2 2-4 2-6 2-8 3-0 3-5 4-0 4-5 5-0 5-5 6-0 6-5 7-0 8-0 9-0 10-0 11-0 12-0 13-0 | 25 25 - helicoid | 4-8 4-7 | | |

Optimum lens application range (with helicoid retracted) / La meilleure utilisation (avec le objectif rétracté) / Optimal Anwendungsbereich (mit eingefahrenem Schneckengang) / Los usos óptimos (con el objetivo comprimida)

Optimum lens application range (with helicoid extended) / La meilleure utilisation (avec le objectif prolongé) / Optimal Anwendungsbereich (mit ausstreckendem Schneckengang) / Los usos óptimos (con el objetivo prolongada)

Possible / Possible / Möglich / Possible