

## Inverted microscope KERN OCM-1



OCM 161



OCM 165-168



N.A. 0,3 Abbe Condenser with phase contrast slide



Coaxial control knobs for x/y can be fitted either left or right

### LAB LINE

The inverted biological laboratory microscope – also with fluorescence

#### Features

- The OCM range stands out through its design which is ergonomic, robust and extremely stable. This design, with its large working distance, is particularly suitable for the monitoring and analysis of cell cultures, for example
- A strong and continuously adjustable 30W halogen illumination unit ensures the optimum illumination in the bright field of your samples. In addition, either an Osram 100 W-HBO- (OCM 165/166) or a 5 W-LED Epi fluorescence incident illumination unit (OCM 167/168) are available to you as a fluorescence microscope for perfect illumination and stimulation of your fluorescence samples
- A special Abbe N.A. 0.3 condenser with aperture diaphragm and large working distance of 72 mm guarantees the very best working practise in the bright field and with fluorescence applications

- As standard, the OCM range is fitted with a trinocular eyepiece tube
- The mechanical stage including specimen holder ( $\varnothing$  110 mm) means that you can work quickly and effectively. Further brackets for petri dishes are included with delivery or available as accessories
- Further options such as, for example, a selection of eyepieces, objectives, specimen holders and other phase contrast units can be integrated as accessories
- A dust cover as well as user instructions are included with the delivery
- Please find detailed information in the following model outfit list

#### Scope of application

- Research and breeding of cell cultures and tissue cultures

#### Applications/Samples

- Particularly for viewing samples in culture vessels (flasks, petri dishes, microtitre plates), translucent, thin, low-contrast, challenging samples (e.g. living mammal cells, tissue, microorganisms if necessary, immunofluorescence, FISH, DAPI staining etc.)

#### Technical data

- Infinity optical system
- Quintuple nosepiece
- Siedentopf 45° inclined
- Diopter adjustment: Both-sided

#### OCM 161

- Overall dimensions WxDxH 304x599x530 mm
- Net weight approx. 13,5 kg

#### OCM 165-168

- Overall dimensions WxDxH 304x782x530 mm
- Net weight approx. 21 kg

#### STANDARD



#### Model

Standard configuration




























KERN	Tube	Eyepiece	Objective quality	Objectives	Illumination
<b>OCM 161</b>	Trinocular	HWF 10x/ $\varnothing$ 22 mm	Infinity Plan		30 W Halogen (transmitted)
<b>OCM 165</b>	Trinocular	HWF 10x/ $\varnothing$ 22 mm	Infinity Plan		30 W Halogen + 100 W Epi Fluorescence (B/G)
<b>OCM 166</b>	Trinocular	HWF 10x/ $\varnothing$ 22 mm	Infinity Plan	LWD10x/LWD20x/ LWD40x/LWD20xPH	30 W Halogen + 100 W Epi Fluorescence (UV/V/B/G)
<b>OCM 167</b>	Trinocular	HWF 10x/ $\varnothing$ 22 mm	Infinity Plan		5W-LED + 5W Epi Fluorescence (B/G)
<b>OCM 168</b>	Trinocular	HWF 10x/ $\varnothing$ 22 mm	Infinity Plan		5W-LED + 5W Epi Fluorescence (UV/V/B/G)

## Inverted microscope KERN OCM-1

Model outfit		Model KERN					Order number
		OCM 161	OCM 165	OCM 166	OCM 167	OCM 168	
<b>Eyepieces</b> (30 mm)	HWF 10×/∅ 22 mm (adjustable)	✓✓	✓✓	✓✓	✓✓	✓✓	OBB-A1491
	HWF 10×/∅ 22 mm (reticule 0,1 mm) (adjustable)	○	○	○	○	○	OBB-A1523
<b>Infinity Plan achromatic Fluor objectives</b> for long working distance	4×/0,11 W.D. 12,1 mm	○	○	○	○	○	OBB-A1600
	10×/0,25 W.D. 10,3 mm	✓	✓	✓	✓	✓	OBB-A1601
	20×/0,40 W.D. 5,8 mm	✓	✓	✓	✓	✓	OBB-A1602
	40×/0,60 W.D. 5,1 mm	✓	✓	✓	✓	✓	OBB-A1603
<b>Trinocular tube</b>	<ul style="list-style-type: none"> <li>• 45° inclined</li> <li>• Interpupillary distance 48–76 mm</li> <li>• Light distribution 100:0</li> <li>• Diopter adjustment: Both-sided</li> </ul>	✓	✓	✓	✓	✓	
<b>Mechanical stage</b>	<ul style="list-style-type: none"> <li>• Stage size W×D 210×241 mm</li> <li>• Travel 128×80 mm</li> <li>• Coaxial coarse and fine focusing knobs</li> <li>• The x/y control knobs can be fitted either left or right</li> <li>• Suitable for attaching a 96-hole microtitre plate</li> </ul>	✓	✓	✓	✓	✓	
	Drop specimen holder (∅ 110)	✓	✓	✓	✓	✓	OBB-A1503
	Specimen holder for 35 mm culture dish	○	○	○	○	○	OBB-A1507
	Specimen holder for 54 mm culture dish	✓	✓	✓	✓	✓	OBB-A1506
	Specimen holder for 65 mm culture dish	○	○	○	○	○	OBB-A1505
<b>Condenser</b>	Abbe N.A. 0,3 (aperture diaphragm), LWD 72 mm	✓	✓	✓	✓	✓	
<b>Illumination</b>	30 W Halogen spare bulb (transmitted)	✓	✓	✓			OBB-A1372
	5 W LED spare bulb (transmitted)				✓	✓	OBB-A1589
<b>Phase contrast units</b>	Phase contrast slide 4x	○	○	○	○	○	OBB-A1608
	Phase contrast slide 10x	✓	✓	✓	✓	✓	OBB-A1609
	Phase contrast slide 20x/40x	✓	✓	✓	✓	✓	OBB-A1610
	Infinity PH-Plan Fluor objective 4x	○	○	○	○	○	OBB-A1604
	Infinity PH-Plan Fluor objective 10x	○	○	○	○	○	OBB-A1605
	Infinity PH-Plan Fluor objective 20x	✓	✓	✓	✓	✓	OBB-A1606
	Infinity PH-Plan Fluor objective 40x	○	○	○	○	○	OBB-A1607
	Centering eyepiece	○	○	○	○	○	OBB-A1544
<b>Fluorescence unit</b>	100 W HBO Epi Fluorescence unit, two-hole slide (B/G)		✓				
	100 W HBO Epi Fluorescence unit, four-hole slide (UV/V/B/G)			✓			
	5 W HBO Epi Fluorescence unit, two-hole slide (B/G)				✓		
	5 W HBO Epi Fluorescence unit, four-hole slide (UV/V/B/G)					✓	
<b>Colour filters</b> for transmitted illumination	Blue	✓	✓	✓	✓	✓	OBB-A1510
	Green	✓	✓	✓	✓	✓	OBB-A1511
	Yellow	○	○	○	○	○	OBB-A1512
	Grey	○	○	○	○	○	OBB-A1513
<b>C-Mount</b>	0,5×	○	○	○	○	○	OBB-A1515
	1×	○	○	○	○	○	OBB-A1514

✓ = Included with delivery

○ = Option

- 
**360° rotatable microscope head**
- 
**Monocular Microscope**  
 For the inspection with one eye
- 
**Binocular Microscope**  
 For the inspection with both eyes
- 
**Trinocular Microscope**  
 For the inspection with both eyes and the additional option for the connection of a camera
- 
**Abbe Condenser**  
 With high numerical aperture for the concentration and the focusing of light
- 
**Halogen illumination**  
 For pictures bright and rich in contrast
- 
**LED illumination**  
 Cold, energy-saving and especially long-life illumination
- 
**Incident illumination**  
 For non-transparent objects
- 
**Transmitting illumination**  
 For transparent objects
- 
**Fluorescence illumination**  
 For stereomicroscopes
- 
**Fluorescence illumination for compound microscopes**  
 With 100 W mercury lamp and filter
- 
**Fluorescence illumination for compound microscopes**  
 With 3 W LED illumination and filter
- 
**Phase contrast unit**  
 For a higher contrast
- 
**Darkfield condenser/unit**  
 For a higher contrast due to indirect illumination
- 
**Polarising unit**  
 To polarise the light
- 
**Infinity system**  
 Infinity corrected optical system
- 
**Zoom magnification**  
 For stereomicroscopes
- 
**Auto-focus**  
 For automatic control of the focus level
- 
**Parallel optical system**  
 For stereomicroscopes, enables fatigue-proof working
- 
**Integrated scale**  
 In the eyepiece
- 
**SD card**  
 For data storage
- 
**USB 2.0 digital camera**  
 For direct transmitting of the picture to a PC
- 
**USB 3.0 digital camera**  
 For direct transmitting of the picture to a PC
- 
**WiFi data interface:**  
 For transmitting of the picture to a mobile display device
- 
**HDMI digital camera**  
 For direct transmitting of the picture to a display device
- 
**PC software**  
 To transfer the measurements from the device to a PC.
- 
**Automatic temperature compensation**  
 For measurements between 10 °C and 30 °C
- 
**Protection against dust and water splashes IPxx:**  
 The type of protection is shown in the pictogram cf. DIN EN 60529:2000-09, IEC 60529:1989+A1:1999+A2:2013
- 
**Battery operation**  
 Ready for battery operation. The battery type is specified for each device.
- 
**Battery operation rechargeable**  
 Prepared for a rechargeable battery operation
- 
**Plug-in power supply**  
 230V/50Hz in standard version for EU. On request GB, AUS or USA version.
- 
**Integrated power supply unit**  
 Integrated in microscope. 230V/50Hz standard EU. More standards e.g. GB, AUS or USA on request.
- 
**Package shipment**  
 The time required to manufacture the product internally is shown in days in the pictogram.

## ABBREVIATIONS

- C-Mount** Adapter for the connection of a camera to a trinocular microscope
- FPS** Frames per second
- H(S)WF** High (Super) Wide Field (Eyepiece with high eye point for wearers of glasses)
- LWD** Long Working Distance
- N.A.** Numerical Aperture
- SLR camera** Single-Lens Reflex camera
- SWF** Super Wide Field (Field number at least  $\varnothing$  23 mm for 10 $\times$  eyepiece)
- W.D.** Working Distance
- WF** Wide Field (Field number up to  $\varnothing$  22 mm for 10 $\times$  eyepiece)