

# Inverted microscope KERN OCM-1





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 (Ø 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 W×D×H 304×599×530 mm
- Net weight approx. 13,5 kg

### OCM 165-168

- · Overall dimensions W×D×H 304×782×530 mm
- · Net weight approx. 21 kg

























Model

#### Standard configuration

KERN	Tube	Eyepiece	Objective quality	Objectives	Illumination		
OCM 161	Trinocular	HWF 10×/Ø 22 mm	Infinity Plan		30 W Halogen (transmitted)		
OCM 165	Trinocular	HWF 10×/Ø 22 mm	Infinity Plan		30 W Halogen + 100 W Epi Fluorescence (B/G)		
OCM 166	Trinocular	HWF 10×/ø 22 mm	Infinity Plan	LWD10×/LWD20×/ - LWD40×/LWD20×PH			
OCM 167	Trinocular	HWF 10×/ø 22 mm	Infinity Plan	- LWD40^/LWD20^FH	5W-LED + 5W Epi Fluorescence (B/G)		
OCM 168	Trinocular	HWF 10×/Ø 22 mm	Infinity Plan		5W-LED + 5W Epi Fluorescence (UV/V/B/G)		





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Model outfit			Model KERN				Order number
		OCM 161	OCM 165	OCM 166	OCM 167	OCM 168	
Eyepieces	HWF 10×/Ø 22 mm (adjustable)	√√	√√	√√	√√	√√	OBB-A1491
30 mm)	HWF 10×/Ø 22 mm (reticule 0,1 mm) (adjustable)	0	0	0	0	0	OBB-A1523
Infinity Plan achromatic	4×/0,11 W.D. 12,1 mm	0	0	0	0	0	OBB-A1600
	10×/0,25 W.D. 10,3 mm	✓	✓	✓	✓	✓	OBB-A1601
Fluor objectives for long working	20×/0,40 W.D. 5,8 mm	✓	✓	✓	✓	✓	OBB-A1602
distance	40×/0,60 W.D. 5,1 mm	✓	✓	✓	✓	✓	OBB-A1603
Trinocular tube	<ul> <li>45° inclined</li> <li>Interpupillary distance 48–76 mm</li> <li>Light distribution 100:0</li> <li>Diopter adjustment: Both-sided</li> </ul>	✓	✓	✓	✓	✓	
	<ul> <li>Stage size W×D 210×241 mm</li> <li>Travel128×80 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>	✓	✓	✓	✓	✓	
Mechanical stage	Drop specimen holder (Ø 110)	<b>✓</b>	<b>-</b>	<b>√</b>	<b>✓</b>	<b></b>	OBB-A1503
	Specimen holder for 35 mm culture dish						OBB-A1507
	Specimen holder for 54 mm culture dish	<b>-</b> ✓				<b>-</b>	OBB-A1506
	Specimen holder for 65 mm culture dish						OBB-A1505
	Abbe N.A. 0,3 (aperture diaphragm),						OBB-A 1303
Condenser	LWD 72 mm	✓	✓	✓	<b>√</b>	<b>√</b>	
llumination	30 W Halogen spare bulb (transmitted)	✓	✓	✓			OBB-A1372
iluiiiilatioii	5 W LED spare bulb (transmitted)				✓	✓	OBB-A1589
	Phase contrast slide 4x	0	0	0	0	0	OBB-A1608
	Phase contrast slide 10x	✓	✓	✓	✓	✓	OBB-A1609
	Phase contrast slide 20x/40x	✓	✓	✓	✓	✓	OBB-A1610
Phase contrast	Infinity PH-Plan Fluor objective 4×	0	0	0	0	0	OBB-A1604
units	Infinity PH-Plan Fluor objective 10x	0	0	0	0	0	OBB-A1605
	Infinity PH-Plan Fluor objective 20x	✓	✓	✓	✓	✓	OBB-A1606
	Infinity PH-Plan Fluor objective 40x	0	0	0	0	0	OBB-A1607
	Centering eyepiece	0	0	0	0	0	OBB-A1544
	100 W HBO Epi Fluorescence unit, two-hole slide (B/G)		✓				
Fluorescence unit	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)					✓	
	Blue	✓	✓	✓	✓	✓	OBB-A1510
Colour filters	Green	✓	✓	✓	✓	✓	OBB-A1511
or transmitted Ilumination	Yellow	0	0	0	0	0	OBB-A1512
	Grey	0	0	0	0	0	OBB-A1513
	0,5×	0	0	0	0	0	OBB-A1515
C-Mount	1×	0	0	0	0	0	









# MICROSCOPES & REFRACTOMETERS 2023

KERN PICTOGRAMS



Ready for battery operation. The battery

type is specified for each device.

Battery operation rechargeable

Prepared for a rechargeable battery

**Plug-in power supply** 230V/50Hz in standard version for EU.

On request GB, AUS or USA version.

Integrated in microscope. 230V/50Hz standard EU. More standards e.g.

The time required to manufacture the product internally is shown in days in

Integrated power supply unit

GB, AUS or USA on request.

Package shipment

the pictogram.

**Battery operation** 

operation

BATT

**■**→)

RECHARGE

230 V



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

00

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 compesation

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

#### **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 \$\phi\$ 23 mm for 10× eveniece)

W.D. Working Distance

WF Wide Field (Field number up to Ø 22 mm for 10× eyepiece)







