

PROFESSIONAL MEASURING

180 YEARS
since 1844
KERN & SOHN

KERN

KERN Optics





PROFESSIONAL MEASURING

180 YEARS
since 1844
KERN & SOHN

KERN

Your contact



Ralf Gutbrod

Teamleader technical sales

Tel.: +49 7433 9933-306

Mobile: +49 151-46143234

E-Mail: ralf.gutbrod@kern-sohn.com

KERN & SOHN GmbH

Ziegelei 1

72336 Balingen

www.kern-sohn.com



PROFESSIONAL MEASURING

180 YEARS
since 1844
KERN & SOHN

KERN

Your contact



Nicole Lebherz

Category Management Optics

Tel.: +49 7433 9933-201

Mobile : +49 151-10400420

E-Mail: nicole.lebherz@kern-sohn.com

KERN & SOHN GmbH

Ziegelei 1

72336 Balingen

www.kern-sohn.com

Agenda

- Introduction of the department KERN Optics
- Productportfolio Optics
 - Biological compound microscopes
 - Stereo- and video-microscopes
 - Microscope cameras und digital sets
- Hands-On: Assembly and installation



PROFESSIONAL MEASURING

180 YEARS
since 1844
KERN & SOHN

KERN

Your contacts in our Optics department:



Ralf Gutbrod

Teamleader technical sales
Product specialist KERN OPTICS

Tel.: +49 7433 9933-306

E-Mail: ralf.gutbrod@kern-sohn.com



Nicole Lebherz

Category Management
KERN OPTICS

Tel.: +49 7433 9933-201

E-Mail: nicole.lebherz@kern-sohn.com



Andreas Vossler

Technical sales
KERN OPTICS & SAUTER

Tel.: +49 7433 9933-208

E-Mail: andreas.vossler@kern-sohn.com

optics@kern-sohn.com



PROFESSIONAL MEASURING

180 YEARS
since 1844
KERN & SOHN

KERN

Your contacts in our product management and technical service:



Johannes Conradt

Teamleader productmanagement
KERN OPTICS

Tel.: +49 7433 9933-240
E-Mail: johannes.conradt@kern-sohn.com



Patricia Schoen

Productmanager
KERN OPTICS

Tel.: +49 7433 9933-247
E-Mail: patricia.schoen@kern-sohn.com



Alexander Beck

Productmanager
KERN OPTICS

Tel.: +49 7433 9933-230
E-Mail: alexander.beck@kern-sohn.com

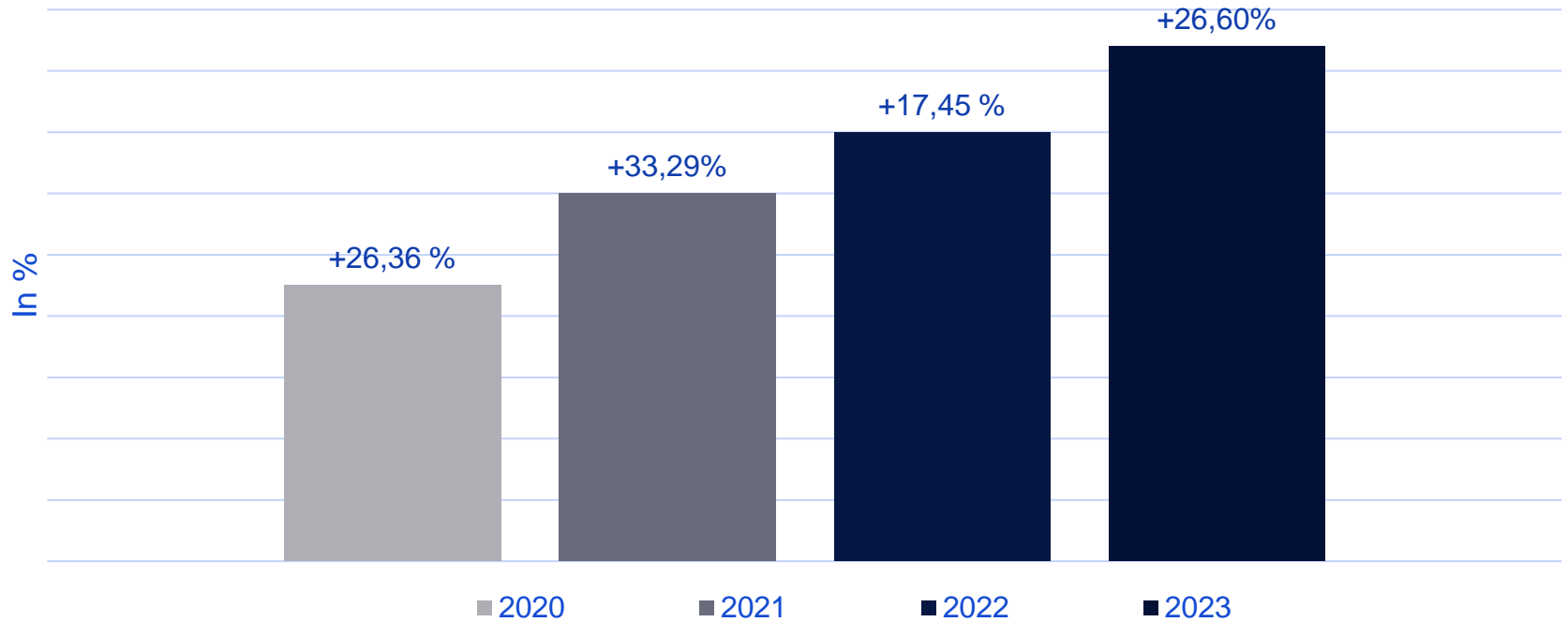


Ralf Schmieg

Service technician
KERN OPTICS

Tel.: +49 7433 9933-166
E-Mail: ralf.schmieg@kern-sohn.com

Growth KERN Optics



Unique selling points:

- **Complete support from KERN – everything from one source!**
 - Checklists available to send to your customers
 - Forward your inquiries and we will send you a product suggestion and a quote
 - Consignment purchases for demos and tests

- **Easy plug-and-play system:**
 - Eyepieces and objectives
 - All mechanical components
 - Dust cover, rubber eyecups
 - Instruction manual in DE und EN

... are always included in the standard scope of delivery!



PROFESSIONAL MEASURING

180 YEARS
since 1844
KERN & SOHN

KERN

Productportfolio Optics

Microscopes, microscope-cameras and refractometers



kern-sohn.com

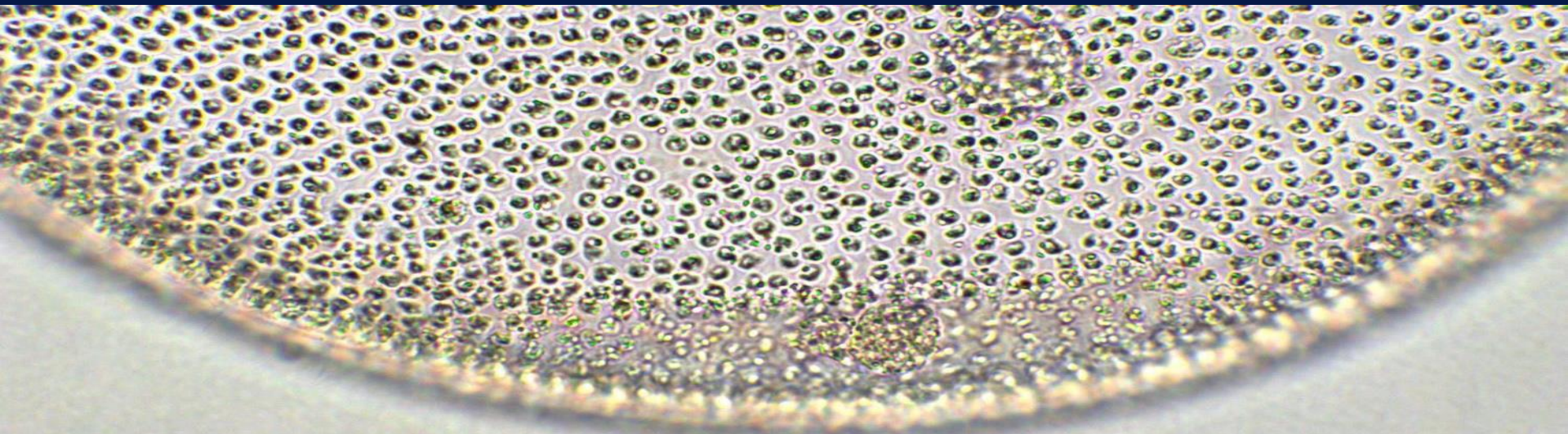


PROFESSIONAL MEASURING

180 YEARS
since 1844
KERN & SOHN

KERN

Biological compound microscopes



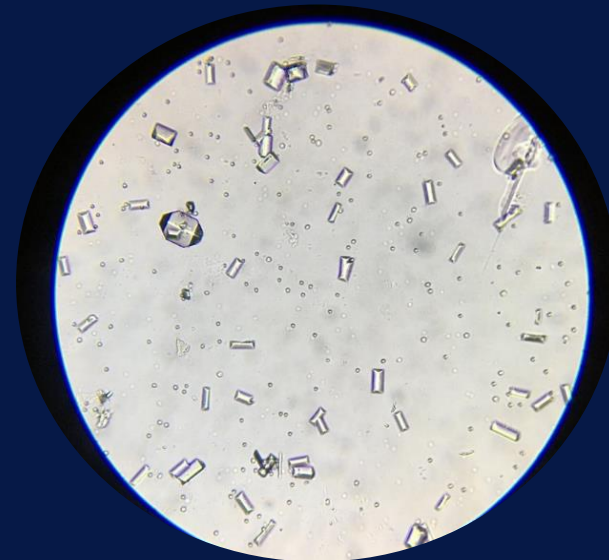
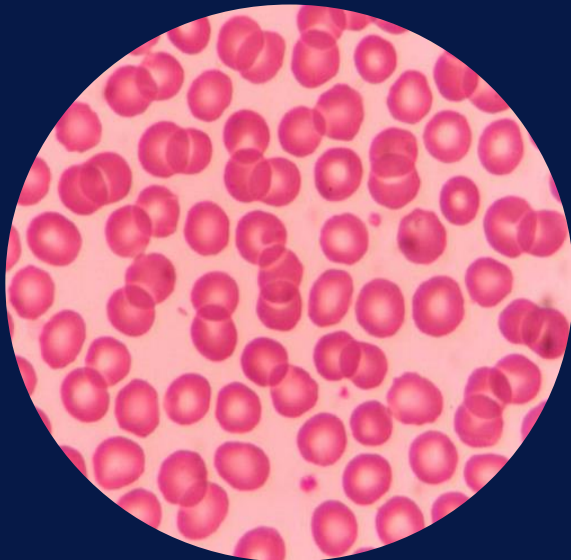


Applications and area of use

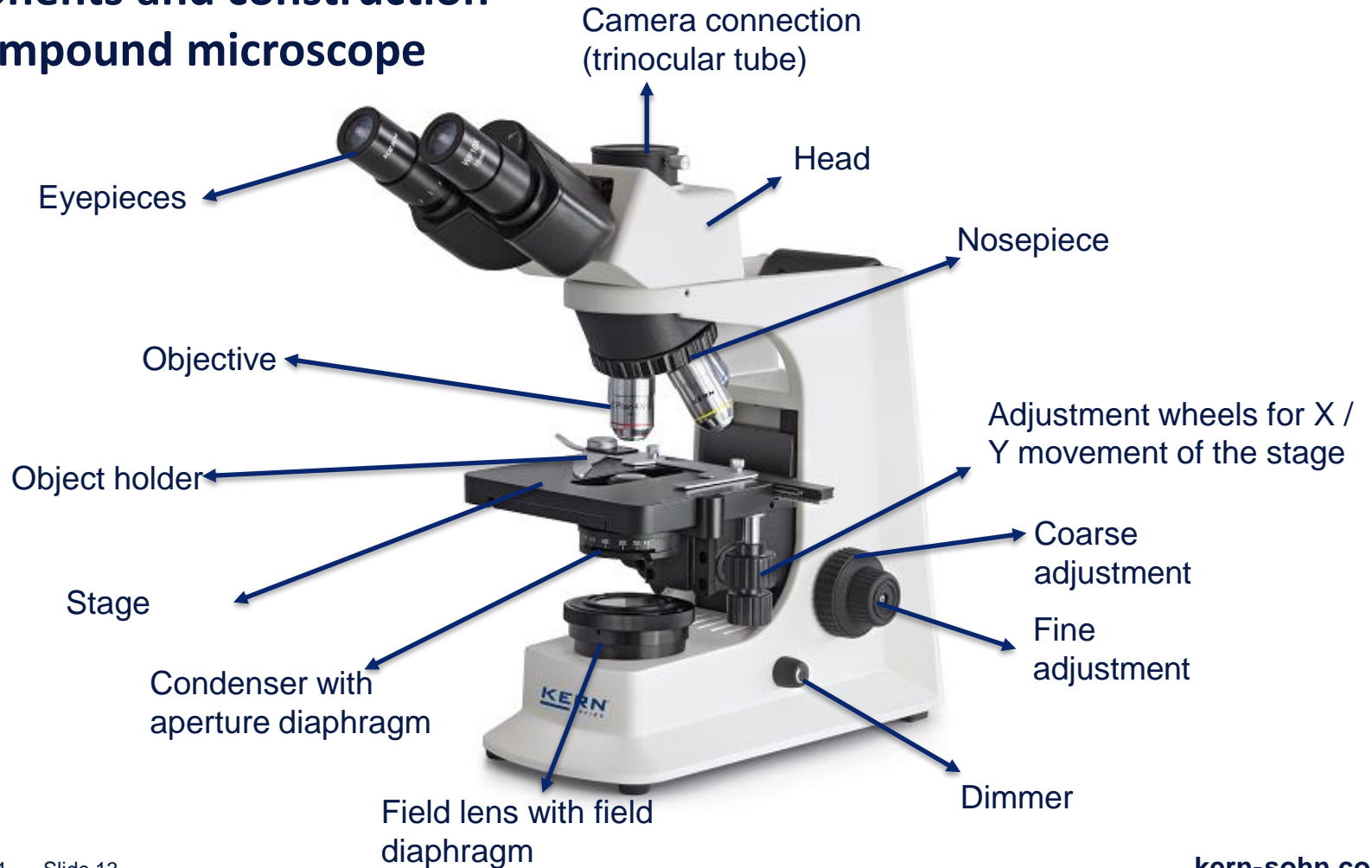
- Translucent, thin materials
- Usually in brightfield (direct transmitted light)
- Extension with contrast methods possible
- Magnification range typically up to 1000x
- E.g. laboratory, medicine, agriculture, water analysis, food

Common applications

- Blood tests: counting of leukocytes
- Urine tests (urine sediment)



Components and construction of a compound microscope





PROFESSIONAL MEASURING

180 YEARS
since 1844
KERN & SOHN

KERN

Overview of the bestsellers



OBE-series

Bestseller in medical practices, universities and pharmacies



Highlights:

- Monocular, binocular or trinocular
- Objectives 4x, 10x, 40x (and 100x)
- Strong 3W-LED illumination
- Practical storage for the power cord in the back
- Power supply via USB-connection

OBL -12, -13 series: High quality laboratory microscope



Highlights:

- Binocular and trinocular models
- 4-position nosepiece
- Objectives 4x, 10x, 40x, 100x
- Strong 3W-LED illumination
- Accessories available for polarization, darkfield, phase contrast and fluorescence

OBN-13 series: Professional laboratory microscope for challenging samples



Highlights:

- Trinocular tube
- 5-position nosepiece
- Objectives 4x, 10x, 20x, 40x, 100x
- Strong 3W-LED illumination
- Accessories available for polarization, darkfield, phasecontrast and fluorescence



PROFESSIONAL MEASURING

180 YEARS
since 1844
KERN & SOHN

KERN

Stereo- and video-microscopes



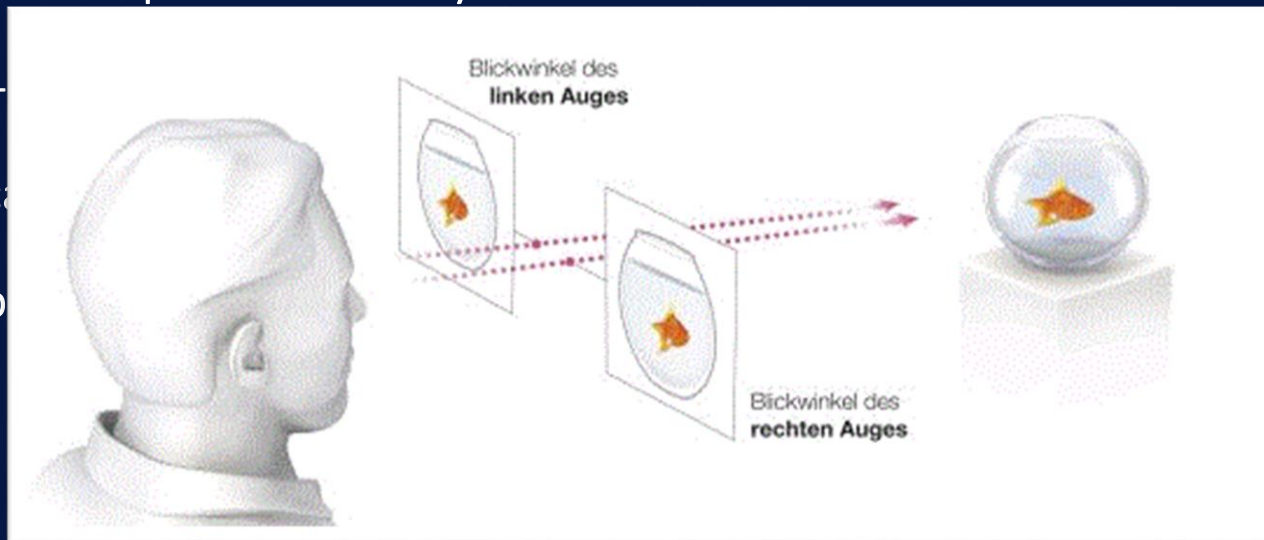
Applications and area of use

- separate beam path for both eyes -> "stereo effect"

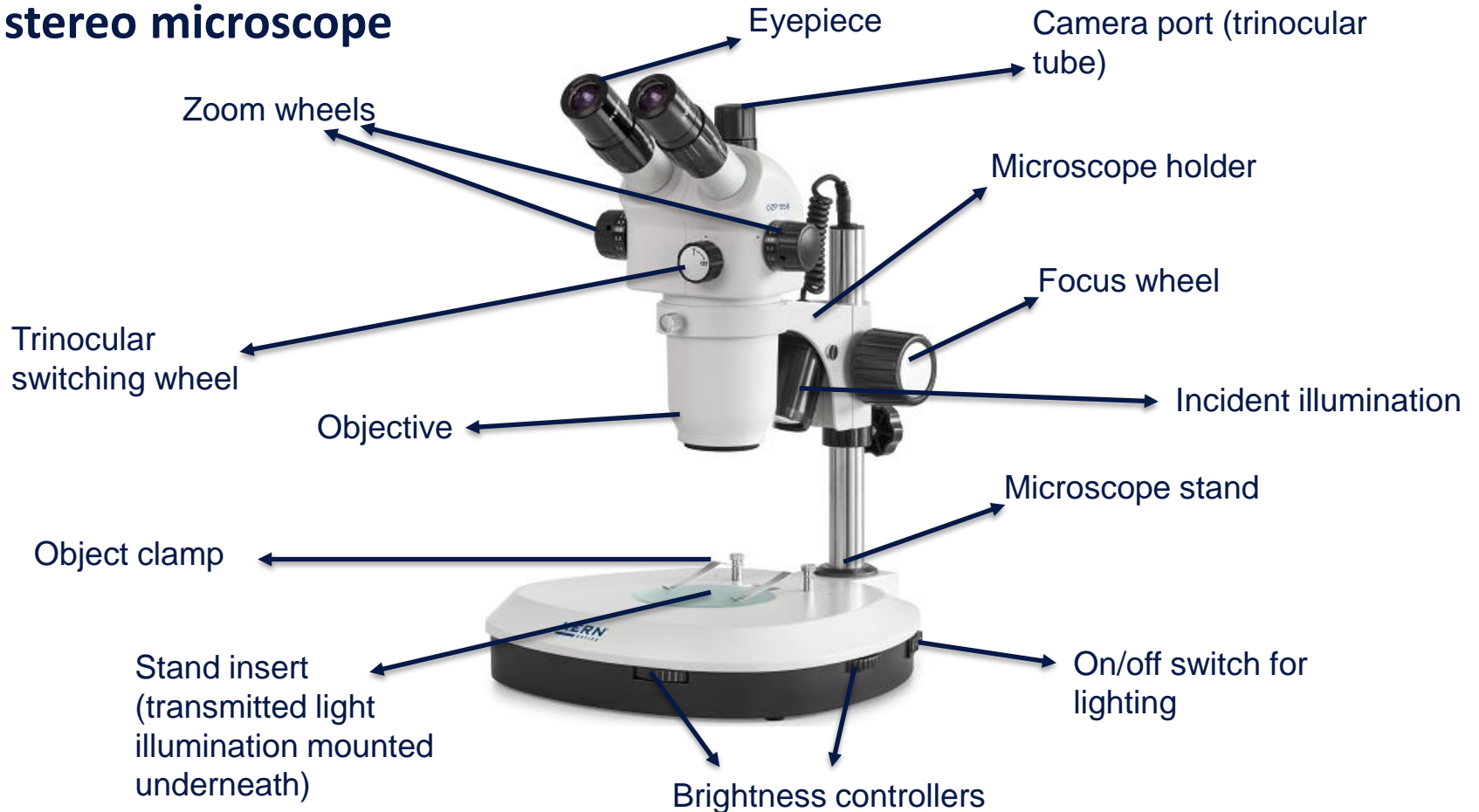
- Incident-

- Magnific

- e.g. for b



Components and construction of a stereo microscope



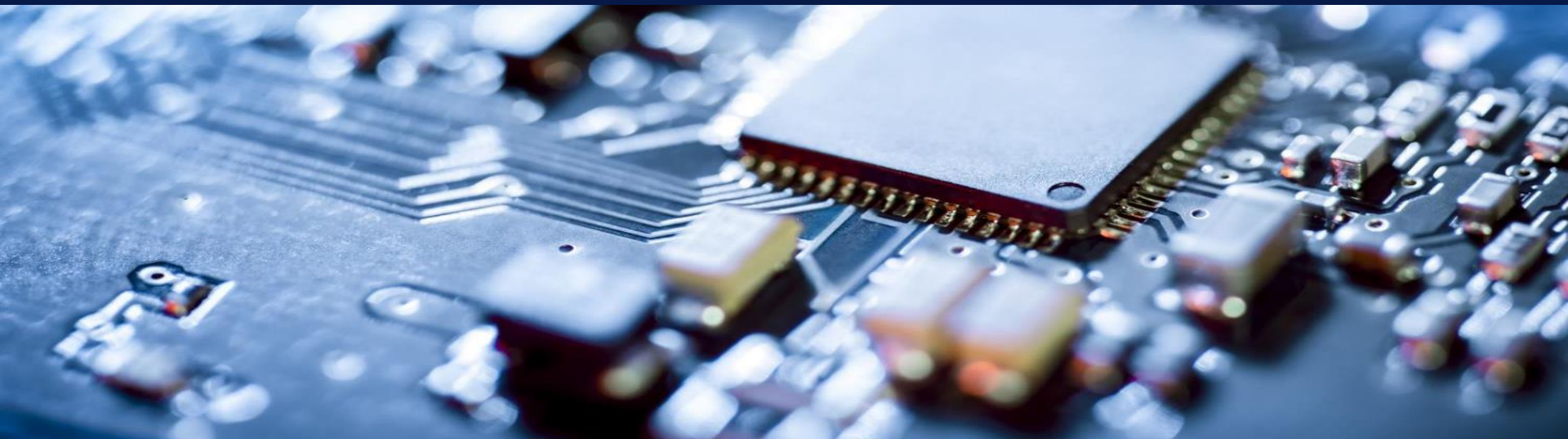


PROFESSIONAL MEASURING

180 YEARS
since 1844
KERN & SOHN

KERN

Overview of the bestsellers



OZL 46-series



Highlights:

- Stereo-zoom-range 7x – 45x
- Binocular and trinocular versions
- Models with or without an integrated ringlicht available
- Pillar stand or mechanical stand

OZM-series



Highlights:

- First class quality optics
- Continuous zoom range: 7x – 45x
- Binocular and trinocular versions
- 3W-LED incident- and transmitted light

OZP-series



Highlights:

- Impressive optics with a large zoom range of 6x – 55x
- Binocular or trinocular
- 3W-LED incident and transmitted light

OIV-3 series: Simplest handling for a broad range of applications



Highlights:

- Zoom range 7x – 45x with integrated click-stops
- 12" screen with 1920x1080px resolution (HD)
- Strong and continuously adjustable 3W LED ringlight
- 5MP camera

Stereomicroscope-sets – for high flexibility and a large working distance



Highlights:

- Pre-defined sets with either an ECO or PREMIUM universal-stand
- Stands with base plate or table clamp
- Incl. 4,5W-LED ringlight
- With binocular and trinocular microscope heads

Stereomicroscope sets – modular system



- Free configuration of a fitting set for your specific application



PROFESSIONAL MEASURING

180 YEARS
since 1844
KERN & SOHN

KERN

Microscope cameras and digital sets





PROFESSIONAL MEASURING

180 YEARS
since 1844
KERN & SOHN

KERN

Applications and area of use

- Anywhere, where microscopic findings have to be documented
- Examination of the live image on an (external) screen
- Pictures and videos
- Further analysis via a software (e.g. measurements, counting, etc.)

Different cameras with one feature in common

Cameras with various connection options:

- USB 2.0/ 3.0 directly to PC or laptop
- HDMI directly to an external screen
- Stand-alone with integrated screen
- Combinations of different options

The common feature:

- The connection is made on the trinocular tube via a c-mount adapter
- C-mount is always selected to match the microscope series

The **c-mount** is a standardized threaded connection. Outer diameter = 1" (2.54 cm)





Digital-sets

Highlights:

- Pre-defined set consisting of microscope, c-mount adapter and camera
- All models in the following series are also available as a digital set:
 - OBE-13, OBL-13 and OBN-13
 - OZL-46, OZM-5 and OZP-5
- Microscope VIS software included in the scope of delivery



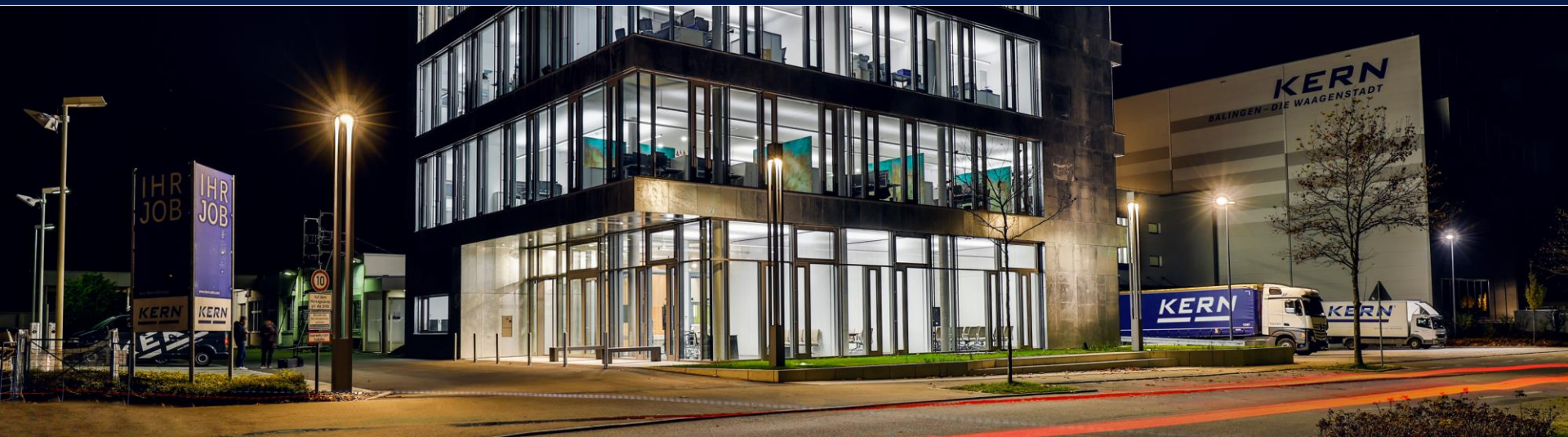


PROFESSIONAL MEASURING

180 YEARS
since 1844
KERN & SOHN

KERN

Thank you for your attention!





PROFESSIONAL MEASURING

180 YEARS
since 1844
KERN & SOHN

KERN

HANDS-ON

