

## bScope® metallurgical

### HIGHLIGHTS

- Materials science microscopes
- Trinocular models
- WF 10x/22 mm eyepieces
- Reversed ball-bearing quadruple nosepiece with slot for polarization filter
- Plan M-IOS objectives
- Polarizer and analyzer filters
- Rackless integrated X-Y mechanical stage
- 3 W NeoLED™ adjustable transmitted and reflected NeoLED™ illumination
- Integrated carrying grip
- Cable Storage System and anti-theft system

### SPECIFICATIONS

#### EYEPIECES

Wide field WF 10x/22 mm eyepieces with 22 mm field of view (Ø 30 mm tube)

#### HEAD

The bScope® is equipped with:

- a Siedentopf type head, 360° rotatable
- 30° inclined tubes
- a ± 5 diopter adjustment on left eyepiece

The interpupillary distance is adjustable between 48 to 76 mm. The trinocular head comes with a Ø 23.2 mm tube, ensuring maximum flexibility. The prisms inside the heads are designed to minimize the light absorption for perfect digital imaging. The trinocular head has a light path selector (100:0 / 0:100) and generates an erect image

#### NOSEPIECE

Revolving and reversed ball-bearing quadruple nosepiece

#### OBJECTIVES

The state-of-the-art production techniques and multi layer coatings used for the manufacturing of the bScope® objectives enables the bScope® to be used for the most demanding applications. World class spherical aberration correction and modern CNC and assembly technology ensure perfect centering of the objectives

Infinity corrected achromatic DIN plan M-IOS 5x/0.12, 10x/0.25, 20x/0.40, 50x/0.70 IOS objectives. Optional plan M-IOS S80x/0.80 and S100x/0.85 DIN IOS objective are also available



● BS.1053-PLMi

*The S80x and S100x objectives are spring loaded*

*All optics are anti-fungus treated and anti-reflection coated for maximum light throughput*

#### FOCUSING

- Double coaxial, low-positioned coarse and fine adjustments with 180 graduations
- Precision 1.1 µm, 200 µm per rotation, total travel range is approximately 19 mm
- Supplied with an adjustable rack stop to prevent damage to sample and objectives
- The coarse adjustment is equipped with friction control

#### STAGE

- The bScope® is equipped with: a scratch resistant 185 x 140 mm stage with integrated 74 x 48 mm X-Y rackless mechanical stage, Vernier scale, soft-close removable specimen holder
- The rackless stage has no protruding parts, enables more smooth movements and is safer in use. Low-positioned X-Y control knobs prevent fatigue during long working sessions

### CONDENSER FOR BRIGHTFIELD

The standard height adjustable Abbe N.A. 1.25 condenser for brightfield comes with an iris diaphragm and swing-out filter holder

### POLARIZATION

The bScope® has an integrated slot above the nosepiece for an optional polarization filter for transmitted illumination

### NEOLED™ REFLECTED ILLUMINATION

Reflected intensity adjustable 3 W NeoLED™ Köhler illumination with external power supply, push-pull type rotatable polarizer and push-pull analyzer, built-in condenser with iris diaphragm and field iris diaphragm. Integrated rotating filter disc with green, blue, yellow and white filters

### NEOLED™ TRANSMITTED ILLUMINATION

The 3 W adjustable Köhler NeoLED™ diascope illumination is powered by an internal 100-240 V power supply making it suitable for worldwide use. The innovative NeoLED™ design offers larger apertures, allowing the optical system of the bScope® microscope to produce images at higher resolutions, very close to the theoretical diffraction limit of the optics. Other benefits of the NeoLED™ is the low energy consumption, no heating and a long operating lifetime

### KÖHLER ILLUMINATION

Köhler illumination ensures for all infinity corrected IOS models the highest possible contrast and the maximum achievable resolving power. Generates a uniform illumination of the sample and eliminates all interference from dust on lenses and side glare of the light source

### CORDLESS USE

The optional rechargeable batteries turn the bScope® into a cordless system (only available for the transmitted illumination)

### CSS – CABLE STORAGE SYSTEM

This system allows users to easily stow away excess cable length into the back of the instrument during operation and to roll up the power cable for easy storage



BS.1053-PLMi ●

### CARRYING GRIP

The integrated carrying grip at the back of the microscope ensures safe transportation of the microscope

### ANTI-THEFT SLOT

At the back of the microscope a Kensington Security Slot is placed, which can be used to secure the instrument from theft

### PACKAGE CONTENT

Smart Styrofoam packaging ensures a low environmental footprint while maintaining maximum safety during transport. Supplied with power cord, dust cover, tools, a spare fuse, white filter and user manual

MODELS	Binocular	Trinocular	WF 10x/22 mm eyepieces	PLMi 5x/10x/20x/50x IOS objectives	Transmitted NeoLED™ Köhler illumination	Reflected NeoLED™ Köhler illumination
BS.1052-PLMi	•		•	•	•	•
BS.1053-PLMi		•	•	•	•	•

Optional: PLMi 100x IOS objective

## ACCESSORIES AND SPARE PARTS

### EYEPIECES

- BS.6310** WF 10x/22 mm eyepiece
- BS.6310-M** WF 10x/22 mm eyepiece
- BS.6315** WF 15x/12 mm eyepiece,  $\varnothing$  30 mm tube
- BS.6399** Pair of eyecups,  $\varnothing$  30 mm tube

### OBJECTIVES

- BS.8105** Plan M-IOS DIN 5x/0.12 infinity corrected objective. WD 26.1 mm
- BS.8110** Plan M-IOS DIN 10x/0.25 infinity corrected objective. WD 20.20 mm
- BS.8120** Plan M-IOS DIN 20x/0.40 infinity corrected objective. WD 8.80 mm
- BS.8150** Plan M-IOS DIN 50x/0.70 infinity corrected objective. WD 3.68 mm
- BS.8180** Plan M-IOS DIN 80x/0.80 infinity corrected objective. WD 1.25 mm
- BS.8100** Plan M-IOS DIN 100x/0.85 infinity corrected objective. WD 0.40 mm

### POLARIZATION

- BS.9602** Analyzer in mount for under nosepiece
- BS.9645** Polarizer, for lamphouse
- BS.9601-R** Polarizer in slider for reflected illumination attachment

### MISCELLANEOUS

- AE.1370** Set of rechargeable batteries, three pieces
- BS.9515** Metal plain insert for mechanical stage
- BS.9518** Glass plain insert for mechanical stage
- AE.5130** Universal  $\varnothing$  23.2 mm tube adapter with built-in 2x lens for SLR photo camera with APS-C sensor. Needs T2 adapter
- AE.5025** T2 ring for Nikon D SLR digital camera
- AE.5040** T2 ring for Canon EOS SLR digital camera
- PB.5155** Microscope slides 76 x 26 mm, ground edges, 50 pieces
- PB.5165** Cover glasses 18 x 18 mm, thickness 0.13-0.17 mm, 100 pieces
- PB.5168** Cover glasses 22 x 22 mm, thickness 0.13-0.17 mm, 100 pieces
- PB.5245** Lens cleaning paper, 100 sheets per pack
- PB.5255** Immersion oil (25 ml).  $n = 1.482$
- PB.5274** Isopropyl alcohol 99% (200 ml)
- PB.5275** Cleaning kit: lens cleaning fluid, lint free lens tissue/paper, brush, air blower, cotton swabs

