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# Микроскопы серии G500

# Технические характеристики

### **G500 Series Microscopes**

The G500 Series Advanced Microscopes are full-featured, versatile and scalable. Designed for users who applications require them to spend extended time viewing through the microscope. An LED illuminated series with options ranging from standard Brightfield, to Phase Contrast, Polarizing and Epi-Fluorescence.

- HEADS: Binocular, or Camera-Ready Trinocular, inclined 30°
- EYEPIECES: Paired 10x Wide Field, High Eyepoint with Dual Diopter and FN 18 mm
- STAGE: Graduated Mechanical Stage with low-position coaxial X-Y controls. Ball bearing movement allows for smooth, precise adjustments. Stage size is 180 mm x 150 mm and the range of X-Y stage movement is 80 mm x 50 mm
- OBJECTIVES: Achromat or Plan Achromatic objectives: 4x, 10x, 20x, 40x, 100x (oil). Additional objectives are available on request. 5 Place nosepiece provides flexibility
- CONDENSER: Focusable and centerable N.A. 1.25 Abbe condenser with graduated iris diaphragm
- KOEHLER FIELD IRIS: Graduated field Iris allows precise positioning to be set based on specific type of specimen being viewed
- ILLUMINATION: High intensity LED with rheostat to control intensity
- ELECTRICAL: 110V- 60 Hz to 240V- 50 Hz, universal power supply. The fuse rating is 250V 1.5A
- INCLUDED ACCESSORIES: Complete with dust cover, two extra fuses, neutral density filter and operation manual
- WARRANTY: Five Year Limited Warranty, One Year on electrical system; excludes bulbs and fuses

| Item No.  | Description                                     |  |  |
|-----------|---|--|--|
| G502      | Binocular Microscope with Achromat Objectives   |  |  |
| G502T     | Trinocular Microscope with Achromat Objectives  |  |  |
| G503      | Binocular Microscope with Semi-Plan Objectives  |  |  |
| G503T     | Trinocular Microscope with Semi-Plan Objectives |  |  |
| G504      | Binocular Microscope with Plan Objectives       |  |  |
| G504T     | Trinocular Microscope with Plan Objectives      |  |  |
| G500-8020 | C-Mount Camera Adapter, 0.35x with Diopter      |  |  |



G500's feature a unique combination system of Graduated Iris Diaphragm mounted in the Condenser, paired with a Graduated Koehler Field Iris built into the Illuminator housing. These features allow maximum illumination control, perfect for viewing unstained specimens.

The graduations also allow a multi-user practice to set both Irises at the optimal setting based on the specimen type being viewed insuring consistent viewing parameters.



Digital USB camera with C-Mount camera adapter

|              | G502           | G502T          | G503           | G503T        | G504         | G504T        |
|--------------|----------------|----------------|----------------|--------------|--------------|--------------|
| Head         | Binocular      | Trinocular     | Binocular      | Trinocular   | Binocular    | Trinocular   |
| Eyepiece     | 10X WF(2)Hi-EP | 10X WF(2)Hi-EP | 10X WF(2)Hi-EP | 10X WF Hi-EP | 10X WF Hi-EP | 10X WF Hi-EP |
| Objectives   | 4,10,40,100X   | 4,10,40,100X   | 4,10,40,100X   | 4,10,40,100X | 4,10,40,100X | 4,10,40,100X |
|              | Achromat       | Achromat       | Semi-Plan      | Semi-Plan    | Plan         | Plan         |
| Condenser    | NA 1.25        | NA 1.25        | NA 1.25        | NA 1.25      | NA 1.25      | NA 1.25      |
| Diaphragm    | lris           | lris           | lris           | lris         | lris         | lris         |
| Stage        | Mechanical     | Mechanical     | Mechanical     | Mechanical   | Mechanical   | Mechanical   |
| Illumination | 3 Watt LED     | 3 Watt LED     | 3 Watt LED     | 3 Watt LED   | 3 Watt LED   | 3 Watt LED   |
| Focusing     | Coaxial        | Coaxial        | Coaxial        | Coaxial      | Coaxial      | Coaxial      |

G504T

Actual Size: 16"H x 6"Wx 12"D Shipping Dimension: 21"L x 19"W x 10"H Net Weight: 14.5 lbs Shipping Weight: 19 lbs

# **G500 Series Phase Contrast Microscopes**

Viewing unstained transparent or translucent specimens has never been easier or more effective. The G500 includes easy to use Phase Sliders (10x/40x and 20x/100x) that mount in the condenser by simply sliding them from one side to the other. No more aligning screws, just simplicity.

- HEADS: Binocular, or Camera-Ready Trinocular, inclined 30°
- EYEPIECES: Paired 10x Wide Field, High Eyepoint with Dual Diopter and FN 18 mm
- STAGE: Graduated Mechanical Stage with low-position coaxial X-Y controls. Ball bearing movement allows for smooth, precise adjustments. Stage size is 180 mm x 150 mm and the range of X-Y stage movement is 80 mm x 50 mm
- OBJECTIVES: Plan Phase 10x, 20x, 40x and 100x with 4x brightfield.
- CONDENSER: Focusable and centerable N.A. 1.25 Abbe condenser with graduated iris diaphragm. Phase contrast annulus sliders fit through center slot on condenser
- KOEHLER FIELD IRIS: Graduated field Iris allows precise positioning to be set based on specific type of specimen being viewed
- ILLUMINATION: High intensity LED with rheostat to control intensity
- ELECTRICAL: 110V- 60 Hz to 240V- 50 Hz, universal power supply. The fuse rating is 250V 1.5A
- INCLUDED ACCESSORIES: Complete with dust cover, two extra fuses, green filter and operation manual
- WARRANTY: Five Year Limited Warranty, One Year on electrical system; excludes bulbs and fuses

| Item No.  | Description  |
|-----------|--|
| G505      | Binocular Phase Contrast Microscope with 10x, 20x, 40x |
|           | and 100x Plan Phase, and 4x Brightfield Objectives     |
| G505T     | Trinocular (Camera-Ready) Phase Contrast Microscope    |
|           | with 10x, 20x, 40x and 100x Plan Phase Objectives,     |
|           | and 4x Brightfield Objective                           |
| G500-8020 | C-Mount Camera Adapter, 0.35x with Diopter control     |
| G500-8031 | 10x/40x Phase Contrast Annulus Slider                  |
| G500-8032 | 20x/100x Phase Contrast Annulus Slider                 |
|           |  |

#### **Phase Contrast Sliders**



Phase contrast objectives require the use of a matching annulus in the condenser. We offer two phase annulus sliders as shown to the left. The first is matched to the 10x and 40x objectives, and the other is matched to the 20x and 100x objectives. Using these sliders makes phase contrast avick and easy as compared to traditional turret condensers.

Actual Size: 16"H x 6"Wx 12"D Shipping Dimension: 21"L x 19"W x 10"H Net Weight: 14.5 lbs Shipping Weight: 19 lbs

> G502T with B6-8185

G502T shown here with 5.6MP digital camera (B6-8185). USB connection to PC and included software (supporting Win XP and Win 7) provide convenient image viewing and capturing option.



Phase kit with centering telescope, one 10x/40x slider, one 20x/100x slider, and 10x, 20x, 40x, and 100x phase contrast objectives.

|              | G505                    | G505T                   |
|--------------|-------------------------|-------------------------|
| Head         | Binocular               | Trinocular              |
| Eyepiece     | 10X WF(2)Hi-EP          | 10X WF(2)Hi-EP          |
| Objectives   | 4,10,40,100X Plan Phase | 4,10,40,100X Plan Phase |
|              | 4X Brightfield          | 4X Brightfield          |
| Condenser    | NA 1.25                 | NA 1.25                 |
| Diaphragm    | lris                    | Iris                    |
| Stage        | Mechanical              | Mechanical              |
| Illumination | 3 Watt LED              | 3 Watt LED              |
| Focusing     | Coaxial                 | Coaxial                 |

## **G500 Series Polarizing Microscopes**

G500 Polarizing Microscopes are full-featured and LED illuminated. Designed with a round 360° rotating stage, graduated in one degree increments and filters for full crystal visualization. G500's feature a unique combination system of Graduated Iris Diaphragm mounted in the Condenser, paired with a Graduated Koehler Field Iris built into the Illuminator housing. These features along with an intensity rheostat allow for maximum illumination control.

Polarization system consists of a 360° rotating round stage, 360° rotatable polarizer, 360° rotatable analyzer, three Compensator Plate sliders (Gypsum, Mica & Quartz) and a swing-out Intermediate Tube Analyzer (90°).

- HEADS: Binocular, or Camera-Ready Trinocular, inclined 30°
- EYEPIECES: Paired 10x Wide Field, High Eyepoint with Dual Diopter and FN 18 mm
- STAGE: Round 360° rotating stage, 160mm diameter, graduated
- OBJECTIVES: Plan Destressing Polarizing Objectives: 10x, 20x and 40x and 4x brightfield
- POLARIZATION SYSTEM: Polarizer, Analyzer, three Compensator Plates and a swing-out Intermediate Tube Analyzer (90°)
- CONDENSER: Focusable and centerable N.A. 1.25 Abbe condenser with graduated iris diaphragm
- KOEHLER FIELD IRIS: Graduated field Iris allows precise positioning to be set based on specific type of specimen being viewed
- ILLUMINATION: High intensity 3 Watt LED with rheostat to control intensity. Koehler illumination field diaphragm for superior contrast control. Phase contrast, Epi-Fluorescent and Polarizing options are available
- ELECTRICAL: 110V- 60 Hz to 240V- 50 Hz, universal power supply. The fuse rating is 250V 1.5A
- INCLUDED ACCESSORIES: Complete with dust cover, two extra fuses, neutral density filter and operation manual
- CONTROL SLIDE: Includes Urate (Uric Acid) Crystal Control Slide
- WARRANTY: Five Year Limited Warranty, One Year on electrical system; excludes bulbs and fuses

| Item No.  | Description   |  |
|-----------|---|--|
| G508      | Binocular Polarizing Microscope with 10x, 20x and 40x |  |
|           | Plan Objectives plus 4x brightfield                   |  |
| G508T     | Trinocular Polarizing Microscope with 10x, 20x and    |  |
|           | 40x Plan Objectives plus 4x brightfield               |  |
| G500-8020 | C-Mount Camera Adapter, 0.35x with Diopter            |  |
| 97100     | Urate Crystal Control Slide                           |  |

|              | G508           | G508T          |
|--------------|----------------|----------------|
| Head         | Binocular      | Trinocular     |
| Eyepiece     | 10X WF(2)Hi-EP | 10X WF(2)Hi-EP |
| Objectives   | 4,10,40,100X   | 4,10,40,100X   |
|              | Plan           | Plan           |
| Condenser    | NA 1.25        | NA 1.25        |
| Diaphragm    | lris           | lris           |
| Stage        | Mechanical     | Mechanical     |
| Illumination | LED            | LED            |

G508

Actual Size: 18"H x 6"Wx 12"D Shipping Dimension: 21"L x 19"W x 10"H Net Weight: 14.5 lbs Shipping Weight: 19 lbs

offers a unique Urate Crystal Control Slide

(item #97100) specifically designed to assist in proper setup of your polarizing microscope and as a urate crystal control to assist in confirmation of your results. The control slide can also be used as a teaching aid for Rheumatology and Urology.



Trinocular Camera-Ready head shown with G500-8020 C-Mount camera adapter and B6-8185 digital camera. See page 24 for more details about the camera.

## **G500 Epi-Fluorescence Microscopes**

G500 Epi-Fluorescence microscopes feature two illumination systems: LED and 100 Watt Mercury bulbs. Available with standard mechanical or heated mechanical stages depending on your application. G505's feature a unique combination system of Graduated Iris Diaphragm mounted in the Condenser, paired with a Graduated Koehler Field Iris built into the Illuminator housing. These features along with an intensity rheostat allow for maximum illumination control.

Epi-Fluorescence with Heated Stage Applications: Research is being conducted with live cells using fluorescence illuminated microscopes. Heated stages are required to keep the temperature at the right setting to help keep the cells alive while being viewed.

- HEADS: Binocular, or Camera-Ready Trinocular, inclined 30°
- EYEPIECES: Paired 10x Wide Field, High Eyepoint with Dual Diopter and FN 18 mm
- STAGE: Graduated Mechanical Stage with low-position coaxial X-Y controls. Ball bearing movement allows for smooth, precise adjustments. Stage size is 180 mm x 150 mm and the range of X-Y stage movement is 80 mm x 50 mm
- OBJECTIVES: Plan: 4x, 10x, 40x and 100x
- FILTER CUBES: Four slots: UV3, B3 (Blue) and G3 (Green)
- FILTER HOLDER: Four position Filter Holder, 3 Filter's supplied
  CONDENSED: Four position Filter Holder, 1 25 Abba
- CONDENSER: Focusable and centerable N.A. 1.25 Abbe condenser with graduated iris diaphragm
- KOEHLER FIELD IRIS: Graduated field Iris allows precise positioning to be set based on specific type of specimen being viewed
- ILLUMINATION: 3 Watt LED (bottom) & 100 Watt Mercury bulb (top)
- UV PANEL: UV blocking panel above stage
- ELECTRICAL: 110V- 60 Hz to 240V- 50 Hz, universal power supply. The fuse rating is 250V 1.5A
- INCLUDED ACCESSORIES: Complete with dust cover, two extra fuses, neutral density filter and operation manual
- WARRANTY: Five Year Limited Warranty, One Year on electrical system; excludes bulbs and fuses

#### Item No. Description

|   | nem no. | Description   |
|---|---------|---|
|   | G506    | Binocular Epi-Fluorescence Microscope with 10x, 20x, 40x &  |
|   |         | 100x Plan Objectives  |
|   | G506T   | Trinocular Epi-Fluorescence Microscope with 10x, 20x, 40x & |
|   |         | 100x Plan Objectives and Digital 5.6 Mega Pixel USB         |
|   |         | Camera with image capture software for Windows XP or 7      |
|   | G506HS  | Binocular Epi-Fluorescence Microscope with 10x, 20x, 40x &  |
|   |         | 100x Plan Objectives and Heated Stage system                |
| G506THS Trinocular Epi-Fluorescence Microscope with 10x, 20 |         |   |
|   |         | 100x Plan Objectives and Heated Stage system                |
|   |         |   |

|              | G506           | G506T          |
|--------------|----------------|----------------|
| Head         | Binocular      | Trinocular     |
| Eyepiece     | 10X WF(2)Hi-EP | 10X WF(2)Hi-EP |
| Objectives   | 4,10,40,100X   | 4,10,40,100X   |
|              | Plan           | Plan           |
| Condenser    | NA 1.25        | NA 1.25        |
| Diaphragm    | lris           | lris           |
| Stage        | Mechanical     | Mechanical     |
| Illumination | LED            | LED            |



**Fluorescence Filter Cubes:** Filter Cube Emitter Exciter Dichroic UV3 400nm 430nm 365nm B3 (Blue) 475nm 505nm 520nm G3 (Green) 525nm 560nm 595nm



Heated Stage Epi-Fluorescence version is perfect for keeping cells alive during study. We recommend the Trinocular version with Digital Video Camera.

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