POLO950 – Research Grade Polarizing Compound Microscope

Binocular / Trinocular

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Polarizing Microscope

Full Koehler Illumination

Nosepiece

Revolving and reversed coded nosepiece for 6 objectives (7 is optional) perform Light Manager function built-in function to save lighting settings for each lens separately

Super wide field

10x/25 mm (standard), Ø30mm tubes or 10x/22 mm, Ø30mm tubes (optional)

Light source

Coded LED 10W illumination for transmitted and reflected light. ECO mode (after 15 minutes of inactivity on microscope, it switches to stand by mode)

Enhanced Infinity System
The enhanced infinity system (EIS) of they COLO PL consists of super wide field SFWF 10×25 mm eyepieces, high numerical aperture 45mm parfocal objectives. This tube lens reduces the angle of the light rays passing through the optics and as a direct result significantly improves the chromatic aberration corrections and contrast. The objectives with larger diameter enable much higher numerical apertures improving the overall resolving power of the optical system
The robust metal construction of the microscope body provides a stable view of the sample
Eyepiece
- Super wide field SWF 10x/25 mm, Ø30mm tubes (standard)
- Extended wide field EWF 10x/22 mm, Ø30mm tubes (optional)

Three extra eyepieces for transmitted illumination:
- Super wide field SWF 10x/25 eyepiece with micrometer scale for Ø30mm tubes
- Super wide field SWF 10x/25 eyepiece with crosshairs for Ø30mm tubes
- Super wide field SWF 10x/25 eyepiece with grid for Ø30mm tubes

Three extra eyepieces for reflected illumination:
- Super wide field SWF 10x/22 eyepiece with micrometer scale for Ø30mm tubes
- Super wide field SWF 10x/22 eyepiece with crosshairs for Ø30mm tubes
- Super wide field SWF 10x/22 eyepiece with grid for Ø30mm tubes

Viewing Head
- Standard Head Siedentop binocular photo tubes with 30° inclined tubes. Interpupillary distance adjustable between 47 and 78 mm. The binocular standard head has a two-position bean splitter (100:0/ 0:100). Diopter adjustment on both eyepieces
- Automatic adjustment of the appropriate ratio when measuring insertion of DIC prisms
- Ergonomic Tilting Head Optional ergonomic 0 to 35° tilting trinocular head supplied with SWF 10x/25 mm eyepieces, interpupillary distance between 47-78 mm and photo tube with a standard Ø 23.2 mm tube. The trinocular tilting head has an optical path selector (100:0 / 80:20 / 0:100). Diopter ± 5 adjustments on both eyepieces (optional)
- Bright field and dark field (reflected and transmitted light)
- An active light manager that allows, when light intensity adjust for active lens, same the relative ratio is carried over for other lenses as well
- All optics are anti-fungus treated and anti-reflection coated for maximum light throughput

Microscope Model	POLO950
Objectives	Infinity Plan Semi-apochromatic Polarizing Objective, S-Apo 5x/0.15 transmitted light
	Infinity Plan Semi-apochromatic Polarizing Objective, S-Apo 10x/0.25 transmitted light
	Infinity Plan Semi-apochromatic Polarizing Objective, S-Apo 20x/0.45 transmuted light
	Infinity Plan Apochromatic Polarizing Objective, Apo 50x/0.80 transmitted light
	Infinity Plan Apochromatic Polarizing Objective, Apo 100x/0.90 transmitted light
	Infinity Plan Polarizing Objective, Plan 2x/0.06 P, WD 9mm. Strain-free, reflected light
	Infinity Plan Polarizing Objective, Plan 4x/0.10 P, WD 30 mm. Strain-free reflected light
	Infinity Plan Polarizing Objective, Plan 10x/0.25 P, WD 10.2mm. Strain-free reflected light
	Infinity Plan Polarizing Objective, Plan 20x/0.22 P, WD 13.36 mm BD DIC reflected light
	Infinity Plan Polarizing Objective, Plan 50x/0.55 WD 9mm BD DIC reflected light
	Infinity Plan Polarizing Objective, Plan 40x/0.65 P, WD 0.7mm transmitted light
	Infinity Plan Polarizing Objective, Plan 50x/0.80 P, WD 0.3 mm. Strain-free, with 0.17 mm cover glass correction
	Infinity Plan Polarizing Objective, Plan 60x/0.95 P, WD 0.3 mm. Strain-free, with 0.17 mm cover glass correction
	Infinity Plan Polarizing Objective, Plan S100x/1.25 P, oil, WD 0.22mm, Strain-free, with 0.17mm cover glass correction
	Infinity Plan Polarizing Objective, Plan S100x/0.5-1.25 P, oil, with iris diaphragm, WD 0.2mm, Strain-free, 0.17mm cover glass correction
Nosepiece	Revolving sextuple (for 6 objectives) reversed nosepiece on ball-bearings (standard)
	Septuple nosepiece for 7 objectives are optional
Stage	Mechanical stage diameter 190 mm circular stage. 360° Rotatable with Vernier and sample holder for reflected and transmitted light
	Optional 30 x 30 mm X-Y mechanical stage
	Optional click stop 45 degree for stage
Module holder	Module holder with 6 position
Condenser	Achromatic aplanatic condenser 0.9 with 5 positions for contrast methods, for objective magnifications of 1-100x
Focusing	Coaxial coarse and fine adjustment, 100 graduations, 1µm precision, 100µm per rotation, total travel range is approximately 35 mm. Supplied with an adjustable rack stop to prevent damage to sample and objectives. The coarse adjustments are equipped with friction control. The focusing knobs can be switched from left to right according to the user's preference
Illumination	The COLO polarizing science microscope for polarization applications is with LED 10W light for reflected and transmitted illumination with intensity adjustment on the microscope body. ECO mode (after 15 minutes of inactivity on microscope, it switches to stand by mode)
Polarization for transmitted light	Supplied with 360° rotatable polarization filter
DIC attachment	20x-50x DIC attachment (standard) Circular DIC with contrast (optional)
Polarization for reflected light	Supplied with 360° rotatable polarization filter Bertrand lens, 1 λ first red plate, 1/4 λ retardation plate, a quartz wedge
Analyzer	Analyzer with rotation . 360°
Compensators	A variety of optical compensators are available in that enhance the signal of weak birefringent materials, making them easier to see. At the same time, the compensator can also be used for qualitative measurements to determine multiple horizontal delays
Compensator Slot	The COLO adopts a standard compensator slot. Therefore, various compensators can be used to enhance the advanced quantitative measurement of the signal of the weak birefringent material.
Reflected Attachment	Up to six observation modules can be placed in the rotating structure. Comes with brightfield and brightfield with ND filter, polarization positions
ECO Function	The unique ECO function is developed to avoid unnecessary loss of energy. The illumination of the microscope automatically switches off shortly after microscopists step away from their position
LED 10W illumination	LED 10W illumination for transmitted and reflected lightl
Lighting Setting	Built-in function to save lighting settings for each lens separately is optional
Stand button for image/video capture	Built-in microscope two ergonomically (left and right) stand buttons for direct image and video capture on USB (a PC is not required)

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