FLUO-IN900 Inverted Fluorescence Microscope

Product Details

Product Number	PRO4972

Technical Specification:

FLUO-IN900 Series Scientific Research Inverted Biological Microscope

FLUO-IN900 Series is a scientific research inverted microscope designed for advanced life science research to meet your various needs. It is an omnipotent microscope, which can observe bright field, phase contrast, polarized light, DIC, fluorescence and other observation modes. Even the confocal, super resolution, and so on needed for cutting-edge life science research can be achieved with this microscope. Fully consider the user's operation habits, ergonomic design, greatly reduce the mechanical fatigue caused by long time observation work. IB950 adopts high-speed electric control, which simplifies and visualizes complex operation and makes it easier and simpler to operate.

Bright-field
Unique NIS infinite optical system, combined with the semi-apochromatic fluorescent objectives, effectively eliminates imaging problems such as curvature of field, chromatic aberration, spherical aberration, coma and other imaging problems.The image is brighter and all magnifications are available in higher super resolution and flatness. Modular design provides a variety of flexible imaging methods.

DIC is a cost-effective optical technology that does not require expensive optics. The embossing contrast uses only the bright field objective and two phase contrast adjustment sliders; For thicker samples, such as induced pluripotent stem cells, DIC provides a pseudo three-dimensional glare-free image. Halo is usually seen with traditional phase contrast observations. In addition, DIC can use glass culture dishes, which is a highly applicable observation technique.

FLUO-IN900

Fluorescence Microscope
Specifications formatted from provided listing

Overview

Trinocular system with long working distance semi-apochromatic plan phase objectives, Köhler LED transmitted illumination and HBO 100 W fluorescence. Includes six-position fluorescence turret with UV shield and standard blue/green excitation filters.

Optics and Head

Eyepieces

- **Type:** HWF 10×/25 mm eyepieces

Viewing Head

- **Configuration:** Trinocular, 45° inclined tubes
- **Beam splitters:** 100–0 / 20–80 / 0–100
- **Interpupillary distance:** 47–78 mm
- **Diopter:** Adjustable on both eyepieces

Nosepiece

- **Type:** Reversed sextuple nosepiece on ball bearings
- **DIC:** Optional DIC prisms for 10×, 20× and 40× objectives

Objectives

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

Model	NA	Working Distance (WD)	Cover Glass Correction	Notes
Infinity Plan Semi-Apochromatic Phase PH 10×	0.30	10.2 mm	1.2 mm	Plan phase, long WD
Infinity Plan Semi-Apochromatic Phase PH 20×	0.45	7.5–8.8 mm (collar)	1.2 mm	Collar for WD adjustment
Infinity Plan Semi-Apochromatic Phase PH 40×	0.60	3–4.4 mm (collar)	1.2 mm	Collar for WD adjustment

Features: High NA, infinity optics, semi-apochromatic plan phase design; enables subcellular structure observation.

Mechanics and Focus

Stage

- **Dimensions:** 340 × 230 mm
- **Mechanics:** Coaxial X–Y 130 × 85 mm
- **Inserts (included):**
  - Metal insert for ø38 mm culture dish
  - Metal insert for ø54 mm dish or 76 × 26 mm slides
  - Metal insert for multiwell plates (127.76 × 85.48 mm)
  - Metal insert for Terasaki plates (83.3 × 58.0 mm)

Focusing

- **Controls:** Coaxial coarse and fine, 200 graduations
- **Precision:** 1 µm; 0.2 mm per rotation
- **Total travel:** ~10 mm

Condenser and Lens Changer

Condenser

- **Type:** Rotating N.A. 0.55 with iris diaphragm
- **Working Distance:** 26 mm
- **Phase annuli:** For 10×/20×, 40× and 60×
- **DIC:** Prisms for 10×/20×/40× and 60× (additional required)
- **Filter holders:** Three positions for Ø38 mm filters
- **Tilting arm:** Allows backward tilt for easy stage access and placement of large items

Lens Changer

- **Inserted lens:** 1.5×
- **Intermediate magnifications:** 1.5× standard values (e.g. 20×→30×, 40×→60×, 60×→90×)
- **Refocusing:** Not required when switching

Illumination

Transmitted

- **Source:** LED 10 W
- **Intensity:** Adjustable
- **Power:** Internal, 100–240 V

Fluorescence

- **Source:** 100 W mercury HBO lamp

Accessories

- **Filters:** Blue and green interference Ø45 mm filters

Optional accessories

Cat. Number	Description
PRO900001	Metal insert for Teraski plates (83.3×58.0 mm).
PRO900002	Coaxial coarse and fine adjustments with 200 graduations. Precision 1 µm, 0.2 mm per rotation. Total travel approximately 10 mm.
PRO900003	Rotating N.A. 0.55 condenser with iris diaphragm. Working distance 26 mm. Supplied with phase contrast annuli for 10×/20×, 40× and 60× objectives and the DIC prisms for the 10×/20×/40× and 60× objectives (need additional DIC prisms). Three filter holders allow insertion of Ø 38 mm filters in the optical path. The arm with condenser can be tilted backwards for convenient access to the stage, allowing easy placement of large objects like flasks and Petri dishes.
PRO900004	A lens changer with a 1.5× lens allows intermediary magnifications of 1.5× the standard objective magnifications. Switching from 20× to 30×, from 40× to 60×, and from 60× to 90× can be done without the need to re-focus on the sample.
PRO900005	Transmitted 10W LED illumination with adjustable intensity and internal power supply 100–240 V.
PRO900006	100 W mercury vapor HBO lamp for fluorescence.
PRO900007	Blue and green interference Ø45 mm filters, alignment telescope and power cord.
PRO900008	Fluorescence attachment, 6 positions, UV shield; 100 W HBO mercury vapor lamp with collimating lens, external PSU, and two standard fluorescence filter sets: Blue excitation EX 460–495 nm (BP), DM 505, EM 510 nm (LP); Green excitation EX 510–550 nm (BP), DM 570, EM 575 nm (LP).
PRO900009	Trinocular head with 45° inclined tubes. Interpupillary distance 47–78 mm. Trinocular head with 100–0, 80/20 and 0/100 positions.
PRO900010	9.7″ LCD screen integrated with 5 MP digital camera, Android OS, HDMI, USB, SD card, Wi-Fi, mouse control.
PRO900011	Super wide field SWF10×/2 mm focusable eyepiece, 30 mm diameter tube.
PRO900012	Super wide field SWF10×/22 mm focusable eyepiece, 30 mm diameter tube.
PRO900013	Wide field WF12.5×/17.5 mm eyepiece for Ø 30 mm tube.
PRO900014	Wide field WF15×/16 mm eyepiece for Ø 30 mm tube.
PRO900015	Wide field WF20×/12 mm eyepiece for Ø 30 mm tube.
PRO900016	Eyeshade for eyepieces.
PRO900017	Reversed sextuple revolving nosepiece on ball-bearings. The nosepiece can be equipped with DIC prisms for the 10×, 20× and 40× objectives (optional).
PRO900018	Infinity Plan Semi-Apochromatic Phase contrast PH 4×/0.13 objective, working distance 17.78 mm. Needs phase annuli for 4× objective.

Cat. Number	Description
PRO900019	Infinity Plan Semi-Apochromatic Phase contrast PH 10×/0.30 objective. Working distance 10.2 mm. Cover glass correction 1.2 mm.
PRO900020	Infinity Plan Semi-Apochromatic Phase contrast PH 20×/0.45 objective with collar ring for adjustment of working distance between 7.5 to 8.8 mm. Cover glass correction 1.2 mm.
PRO900021	Infinity Plan Semi-Apochromatic Phase contrast PH 40×/0.60 objective with collar ring for adjustment of working distance between 3 to 4.4 mm. Cover glass correction 1.2 mm.
PRO900022	Infinity Plan Semi-Apochromatic Phase contrast PH 60×/0.70 objective with collar ring for adjustment of working distance between 1.8 to 2.6 mm. Cover glass correction 0.1–1.3 mm.
PRO900023	Infinity Plan Semi-Apochromatic Fluorescent 4×/0.13 objective, working distance 17 mm.
PRO900024	Infinity Plan Semi-Apochromatic Fluorescent 10×/0.30 objective. Working distance 7.3 mm. Cover glass correction 1.2 mm.
PRO900025	Infinity Plan Semi-Apochromatic Fluorescent 20×/0.45 objective. Working distance 8 mm. Cover glass correction 1.2 mm.
PRO900026	Infinity Plan Semi-Apochromatic Fluorescent 40×/0.60 objective. Working distance 3.6 mm. Cover glass correction 1.3 mm.
PRO900027	Infinity Plan Semi-Apochromatic Fluorescent 60×/0.70 objective with collar ring for adjustment of working distance between 1.8 to 2.6 mm. Cover glass correction 0.1–1.3 mm.
PRO900028	Infinity Plan Apochromatic Fluorescent Plan-Apo 10×/0.45 objective. Working distance 4.0 mm. Cover glass correction 0.17 mm.
PRO900029	US$8,250.00
PRO900030	US$11,840.00
PRO900031	DIC prism with polarizer for condenser for Life Science Delphi Inverso models. To be used with Plan Semi-Apo 10x objectives.
PRO900032	DIC prism with polarizer for condenser for Life Science Delphi Inverso models. To be used with Plan Semi-Apo 20/40x objectives.
PRO900033	DIC prism for nosepiece to be used with Semi-Apo 10x objective.
PRO900034	DIC prism for nosepiece to be used with Semi-Apo 20x objective.
PRO900035	DIC prism for nosepiece to be used with Semi-Apo 40x objective.
PRO900036	Metal insert for Ø 38 mm cell culture dish.
PRO900037	Metal insert for Ø 54 mm cell culture dish or 76 × 26 mm slides.

Cat. Number	Description
PRO900038	Metal insert for Multiwell plates (127.76 × 85.48 mm).
PRO900039	Metal insert for Teraski plates (83.3 × 58.0 mm).
PRO900040	Universal cell culture holder.
PRO900041	Rotating magnification changer with a 1.5x lens.
PRO900042	DIC analyzer for nosepiece.
PRO900043	10 W LED bulb for transmitted illuminator.
PRO900044	100 W halogen bulb for transmitted illuminator.
PRO900045	Fluorescence attachment, 6 positions, UV shield; 100 W HBO mercury vapor lamp with collimating lens, without objectives, without filter sets and without empty cubes.
PRO900046	Filter set for blue excitation, EX 460–490 nm (BP), DM 500 nm, EM 520 nm (LP) (needs empty filter cube).
PRO900047	Filter set for green excitation, EX 510–550 nm (BP), DM 570 nm, EM 590 nm (LP) (needs empty filter cube).
PRO900048	Filter set for violet excitation, EX 400–410 nm (BP), DM 455 nm, EM 460 nm (LP) (needs empty filter cube).
PRO900049	Filter set for ultra-violet excitation, EX 330–385 nm (BP), DM 400 nm, EM 420 nm (LP) (needs empty filter cube).
PRO900050	Filter set for red excitation: BP 620–650, dichroic mirror DM 660, barrier BA 670–750 (needs empty filter cube).
PRO900051	100 W HBO mercury vapor lamp for reflected illumination.
PRO900052	100 W power supplier NFP-1.
PRO900053	FL-ND6 filter.
PRO900054	FL-ND25 filter.
PRO900055	C-mount with 1x magnification for C-mount camera.
PRO900056	C-mount with high resolution relay 0.50x objective for 1/2″ C-mount camera.
PRO900057	C-mount with high resolution relay 0.35x objective for 1/3″ C-mount camera.
PRO900058	C-mount with high resolution relay 0.63x objective for 2/3″ C-mount camera.
PRO900059	Universal Ø 23.2 mm tube adapter with built-in 2x lens for SLR photo camera with APS-C sensor. T2 ring adapter is needed.

Cat. Number	Description
PRO900060	T2 ring for Nikon D SLR digital camera.
PRO900061	T2 ring for Canon EOS SLR digital camera.

Accessories: