



Ryf AG
Bettlachstrasse 2 · CH-2540 Grenchen
Tel. 032 654 21 00 · Fax 032 654 21 09
ryfag@ryfag.ch · www.ryfag.ch
www.fotoryf.ch



PL Cold Light Fiber Optical Technology

PHOTONIC
Optics

Cold Light Technology





PL Cold Light Fiber Optical Technology

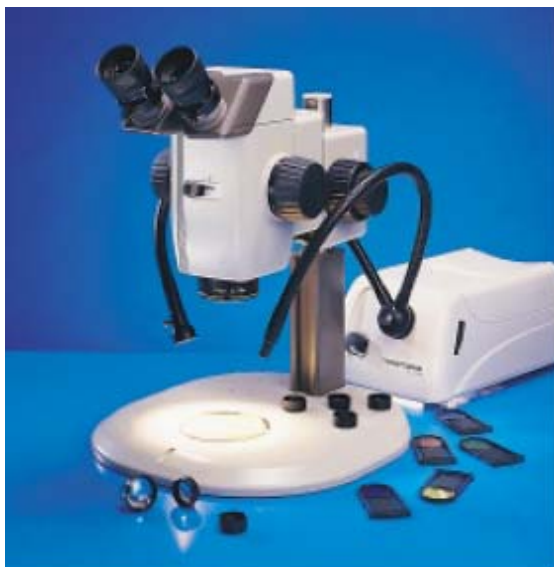
A New Generation of Cold Light Sources

PHOTONIC is one of the leading companies in the optics and opto-electronics industry and has gained a great deal of expertise in the field of light projection and fiber optics. Indeed, our experience dates back to the founding years of the optical industry. In fiber optics, too, PHOTONIC is now one of the most important suppliers worldwide.

The new PHOTONIC cold light sources are a state-of-the-art development. They represent a completely new generation and an advancement over the conventional products available on the market to date.

Perfectly functioning cold light sources combined with sophisticated fiber-optic light guides meet the demands for the precision optical instruments used in industry, science, medicine, criminology, photography etc.

- Precision object illumination
- Reduced temperatures without
- heat development on the object
- Individual structuring of the light beam with light guides, lens attachments and filter/filter combinations
- Variety of illumination options even in inaccessible places





PL Cold Light Fiber Optical Technology

Visible Advantages

PHOTONIC COLD LIGHT SOURCES

Infinitely variable intensity control, turbo range

The infinitely variable control knob allows optimum adjustment of the light intensity, both in the normal and the turbo range. Lamp life can be prolonged by maintaining intensity at the actual requirement.

Soft start

The integral soft start feature protects the lamp and prolongs its life span.

Side filter insert

The filter insert is at the side of the unit. This means that filters can easily be changed, even when units are stacked.

Ergonomic design, handle

PHOTONIC cold light sources are built with ergonomics in mind. From the handle to the low weight, everything is geared to optimum user-friendliness.

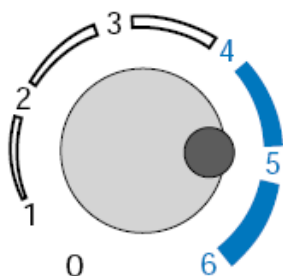
Stackable

The stackability of the units is of great benefit for a number of applications and logistics.

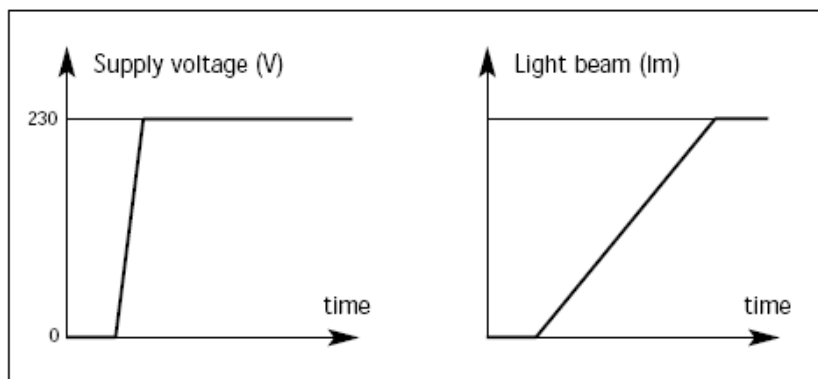
Easy lamp change

The bulbs are quick and easy to change.

infinitely variable intensity control with turbo range



soft start



stackable



easy lamp change



ergonomic handle



side filter insert



PL Cold Light Fiber Optical Technology

Leading Light

The standard design of PHOTONIC cold light sources is already equipped for using ESD light guides (ring lights/goose necks) and therefore any appearing electrical loading can be Leaked off.

As a special design, cold light sources with a housing in ESD version are also available.

Flexible illumination light guides

These are easily positioned and available as single or dual leg versions. They permit spot illumination.

Goose neck light guides

In single or dual leg versions, these light guides also allow spot illumination. A semi-rigid protective or sheathed tube permits the light guide to be positioned in the required direction.

Incident lights

Incident lights consist of a flexible lead to a dual goose neck which can be attached to the rear of the microscope stand. This means that the gooseneck can be fixed to the microscope and the light source positioned wherever you wish.

Ring lights

These are attached to the microscope lens and permit shadow-free illumination of three-dimensional objects. Photonic standard-ring lights are provided with an unique variable focusing attachment, which enables, depending on the working distance, up to a sevenfold increased light output.

ESD version

Ring lights and goose necks can be supplied as ESD versions (electrostatic discharge) if required.





PL Cold Light Fiber Optical Technology

ACCESSORIES

Slot-in filters for the light source

Color and daylight filters allow considerable variation of the light beam. The filter holder is designed for easy filter change and permits the use of other, suitably adapted filters.

In combination with the light guide filters additional effects can be achieved.

Filter and focusing attachment for flexible incident and goose neck light guides

The filter and focusing attachment consists of a holder onto which the required focusing lenses and/or suitable filters can be screwed. A comprehensive range of filters is available for diverse applications.

Polarizing filters for ring lights

The polarizing filter set consists of a polarizer and an analyzer and eliminates reflections. It is inserted into the ring light.

Fluorescence filters for ring lights

These are for examining fluorescence in the visible range

Adapters for ring lights

We have a range of adapters for microscopes/microscope lenses if ring lights of standard diameter 66 mm cannot be attached. If required, customized adapters can also be supplied.

Adjustable stand

The adjustable stand is for accurate positioning of flexible illuminating light guides.

It consists of a heavy base plate and an articulated support arm which can be moved in all directions and fixed in place with the locking knob.

The light guides are mounted on the universal, protective holder. The articulated arm can also be used without the base plate by attaching an M6 thread or an M8 adapter.





PL Cold Light Fiber Optical Technology

Technical Data ...

PL 1000, PL 2000, PL 3000

	Product specification	PL 1000	PL 2000	PL 3000
excellent light performance	Light intensity max. (entrance)	8 Mlx	18 Mlx	26 Mlx
no dark spots	Rating	30 W	100 W	150 W
infinitely variable intensity control	Input	50 VA	120 VA	190 VA
turbo range	Voltage (50/60 Hz)	100 V		
soft start		120 V	100/120 V	100/120 V
long lamp life		230/240 V	230/240 V	230/240 V
easy bulb change	Intensity control	infinitely variable	infinitely variable	infinitely variable
easy socket change	Turbo range	x	x	x
side filter insert	Color temperature			
low noise level	at max. turbo range	3200 K	3250 K	3250 K
reduced vibrations	with daylight filter	5400 K	5400 K	5400 K
low housing temperature	Lamp life			
overheating protection	at max. standard setting	2000 h	3000 h	1500 h
ergonomic design	at max. turbo setting	200 h	500 h	200 h
handle	Increased lamp life			
compact size	with electrical variability	x	x	x
low weight	Elimination of dark spots	x	x	x
CE certification	Heat protection filter		x	x
ESD version	Side filter insert	x	x	x
	Filter change in holder possible	x	x	x
	Stackability	x	x	x
	Soft start	x	x	x
	Cooling optimized	x	x	x
	Cool plastic housing	x	x	x
	Overheating protection	x	x	x
	Soundproofing	no sound	x	x
	Vibration damping	no vibration	x	x
	Airflow-free workstation	x	x	x
	Handle	x	x	x
	Easy lamp change	x	x	x
	Easy socket change	x	x	x
	Easy fuse change	x	x	x
	Fuses (230/240 V, 100/120 V)	315/630 mA	1 A/2.5 A	1 A/2.5 A
	Power cord, plug-in	x	x	x
	Light guide terminal	15 mm	15 mm	15 mm
	Housing material	PC + ABS	PC + ABS	PC + ABS
	Flame protection V-O (UL)	x	x	x
	Colour	RAL 9001	RAL 9001	RAL 9001
	Dimensions	168/120/268 mm	168/120/268 mm	168/120/268 mm
	Weight	1.3 kg	1.5 kg	1.6 kg
	No light emission at front	x	x	x
	Certification CE, ENEC 11	x	x	x
	ESD versions (option)	x	x	x
	Also med. version EN 60601 available	x	x	x





PL Cold Light Fiber Optical Technology

LIGHT GUIDES...

Flexible light guides	Length	3.0 mm dia.	4.5 mm	7.0 mm
Single leg	800 mm	x	x	x
	1200 mm	x	x	x
	1600 mm	x	x	x
Dual leg	800 mm	x	x	x
	1200 mm	x	x	x
	1600 mm	x	x	x

Goose necks	Length	4.0 mm dia.
Single leg	550 mm	x
Dual leg	550 mm	x
Dual leg ESD	550 mm	x

Incident lights	Length gooseneck leg	Length flexible part
Dual leg	550 mm	800 mm
	550 mm	1600 mm

Ring lights	Length	6.3mm act. dia.	8.3 mm
Four-point	800 mm	x	
	1200 mm	x	
	1600 mm	x	
Continous	800 mm		x
	1200 mm		x
	1600 mm		x
Continous ESD	800 mm		x



ACCESSORIES...

Cold light sources

Filter holder empty
Filter holder with filter
blue
green
yellow
red
daylight

Flexible light guides

Articulated arm
Steel base for articulated arm
Holder

Flexible light guides and goose necks

Attachment holder
Focusing lens 20
Focusing lens 26
Filter attachment 20
blue
green
yellow
red
daylight
polarization

Ring lights

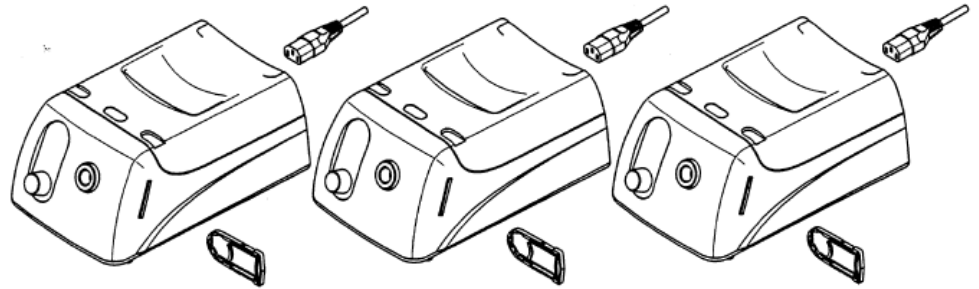
Polarizing filter set
Fluorescence filter set
470/540 nm
Microscope adapters
Focusing attachment



PL Cold Light Fiber Optical Technology

At a Glance...

The new PHOTONIC cold light system provides outstanding light intensity and many excellent product features. The application areas are varied and the quality meets the highest standards.



PL 1000

PL 2000

PL 3000

Filter insert



4-point ring light

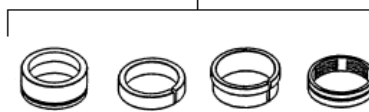


Continuous ring light

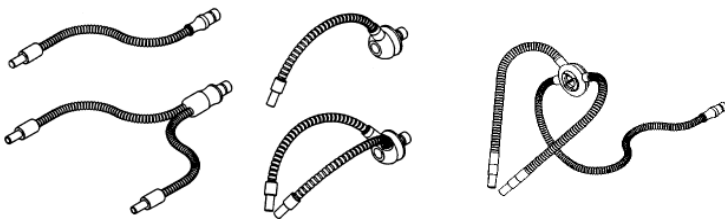
Polarizing filter set



Fluorescence filter set



Microscope adapters



Flexible light guide

Gooseneck light guide

Incident light guide

Focusing lens 20/26

Filter/lens holder

Filter

Holder

Articulated support arm

Base

Subject to change without notice, Ryf SA, Grenchen/SO & Commugny/VD