

Living up to Life



Leica KL1500 C

Leica KL1500 LCD

Leica KL2500 LCD

Cold light - the right light for your application





Leica KL1500 C

The Leica KL1500 C is a 150-watt halogen cold light source developed and designed for applications in Stereomicroscopy and Macroscopy. The Compact has key basic features, as compared to the high-end LCD light sources, which gives it an excellent price-performance-ratio.

The Leica KL1500 C is driven by an auto-switching universal power supply suitable for worldwide usage. The high frequency light source is ideal for taking digital images because it has a "no flicker" effect at short exposure times when viewing a live image.

The optical system is the same as the Leica KL1500 LCD which is optimized for coupling the light of the EFR type halogen lamps to smaller diameter light guides. A fixed focusing prism lens improves the light uniformity through the light guides. The compact also features a soft start system (2s delay) that can increase lamp lifetime up to 250 hours even at the maximum brightness level.

FEATURES / BENEFITS

- › Continuous dimming from 0 to 100%
- › High quality optical system including a prism lens for focusing
- › Very low noise fan
- › High quality housing with integrated handle
- › Weighted housing for improved stability when used with goosenecks
- › Filter slider with two positions (filter can remain in the light source even if it is not used)
- › Lamp housing opens to the side (allows change of bulb even if stacked).

Approvals:

The Leica KL1500 C has been approved and certified as laboratory and an electro medical device by CSA (C/US) and is in compliance with CE regulations.

All light guides and accessories of the Leica KL series fit to the Leica KL1500 C as shown in the system diagram.

Leica KL1500 LCD

The Leica KL1500 LCD is the performance leader when it comes to 150-watt halogen cold light sources. With an outstanding modern design and optimized, homogeneous light output and variable light control options, this light source is ideal for a wide range of applications in the laboratory, industrial and life science areas.

The LCD display indicates the color temperature of the halogen lamp as well as the various operational modes. The KL1500 LCD features continuous mechanical dimming while maintaining a constant color temperature which helps improve the lifetime of the halogen lamp. If you need more light, you can use the turbo setting to give you up to 30% more light as compared to the standard setting (recommended only for very short time periods).

A new optic module, specially designed for EFR Type halogen lamps, optimizes the light coupling into small diameter light guides, this improves the intensity and uniformity at the exit of the light guide. A broad range of light guides with active bundle diameters of up to 9 mm (.35") are available, as well as a wide selection of color filters and other accessories. Please refer to the system diagram for a complete overview of the KL Series.

The Leica KL1500 LCD is housed in a stackable housing and is designed to keep stray light to a minimum. It features a lamp compartment door that allows for a quick lamp replacement, as well as an easy-to-change filter slide. Electronic stabilization of the lamp voltage provides constant light output in the event of slight fluctuations of the AC input voltage.

FEATURES / BENEFITS

- › Lamp compartment for quick lamp replacement+
- › Filter drawer for selection of color filters
- › Swing-in input optics for homogenization of light input
- › Stackable while providing access to all features and functions.
- › Low-noise fan with optimum air venting
- › Easy and reproducible operation

Approvals:

The Leica KL1500 LCD has been approved and certified as laboratory and electro medical device by CSA (C/US) (120 Volt version).

The 230 Volt version carries the CE conformity label.

See the system diagram for light guides and accessories.



Leica KL2500 LCD

Twice the amount of light – ideal for special applications: The Leica KL2500 LCD is the performance leader in light sources. This light source sets the benchmark in the field of halogen cold light sources. Fitted with a 250 watt cold light reflector lamp, the Leica KL2500 LCD transmits more than twice the amount of light of the Leica KL1500 LCD. This unparalleled performance makes this the instrument of choice for the most challenging applications.

Equipped with the same outstanding features as the Leica KL1500 LCD, the Leica KL2500 LCD accepts light guides with bundle diameters up of 15 mm. The larger bundle diameter, in combination with the 250 watt lamp power, make this light source suitable for demanding applications such as GFP fluorescence microscopy, short exposure macrophotography as well as incident darkfield.

The Leica KL2500 LCD is equipped with a 5-position filter wheel, making filter selection quick and easy. Color filters and special GFP-fluorescence excitation filters are also available. See the system diagram for more details on filters and accessories.

Accessories such as a remote control or tilt switch can be connected to the RS-232 analog socket in the front panel, enabling remote control or it can be controlled with Leica's Application Suite software.



FEATURES / BENEFITS

- › Filter wheel – up to five (5) colors
- › Accommodates up to 15 mm light guides
- › Compatible with Leica KL1500 LCD light guides (adapter included)
- › Easy and reproducible operation
- › Lamp compartment for quick lamp replacement
- › Swing-in input optics for homogenization of light input
- › Stackable while providing access to all features and functions
- › Controllable in LAS
- › Low-noise fan with optimum air venting

Approvals:

The Leica KL2500 LCD has been approved and certified as laboratory and electro-medical device by CSA (C/US) (120 Volt version). The 230 Volt version carries the CE conformity label.

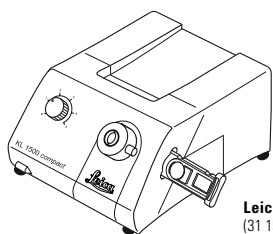




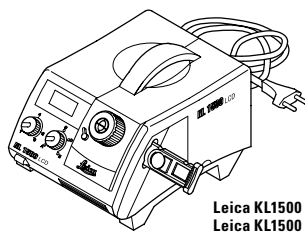
Technical Data

General Data	Leica KL1500 C	Leica KL1500 LCD	Leica KL2500 LCD
Part-No(s)	31 150 300	31 150 200	31 250 200
		31 150 201	31 250 201
Dimensions (W × D × H)	183 × 261 × 137 mm / 7.2" × 10.3" × 5.4"	ca. 200 × 265 × 170 mm / 7.9" × 10.4" × 6.7"	ca. 200 × 265 × 170 mm / 7.9" × 10.4" × 6.7"
Weight	Approx. 3.0 kg	Approx. 4.8 kg	Approx. 6.0 kg
Cooling	Very low noise fan	Low noise fan	Low noise fan
Electrical Data			
Operating voltage, Frequency	90 - 264 V, ~ 50/60 Hz	120 Volt: 31 150 201 100 V ~ 50/60 Hz, 120V ~ 60 Hz	120 Volt: 31 250 201 100 V ~ 50/60 Hz, 120V ~ 60 Hz
		230 Volt: 31 150 200 220 V ... 240 V ~ 50/60 Hz	230 Volt: 31 250 200 220 V ... 240 V ~ 50/60 Hz
Protection class	I	II	II
Power consumption	max. 180 VA	max. 280 W	max. 300 W
Overvoltage category	II		
Lamp Type	Halogen reflector lamp type EFR	Halogen reflector lamp Type EFR	Halogen reflector lamp Typ ELC
Lamp Voltage rating (V)	15	15	25
Lamp power rating (W)	150	150	250
Average Lamp level 4	1500 hours	1500 hours	1500 hours
Service Life level 5	200 hours	150 hours	150 hours
Illumination data			
Light flux	450 lm	600 lm	1300 lm
Light control	Electrical	Electrical and mechanical	Electrical and mechanical
Active light guide diameter	max. 9 mm / max. 0.35"	max. 9 mm / max. 0.35"	max. 15 mm / max. 0.59"
Certification marks			
Approvals	CE, CSA	120 Volt version: CSA (C/US) 230 Volt version: CE, CSA	120 Volt version: CSA (C/US) 230 Volt version: CE, CSA
EMV-class	A		B

Specification



Leica KL1500 Compact
(31 150 300)

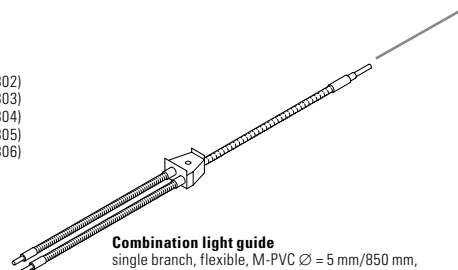


Leica KL1500 LCD 200 V (31 150 200)
Leica KL1500 LCD 120 V (31 150 201)

Adapter for Volpi (31 150 310)

Insert filter with holder

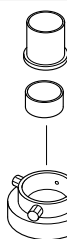
blue (31 158 302)
red (31 158 303)
green (31 158 304)
yellow (31 158 305)
daylight filter (31 158 306)



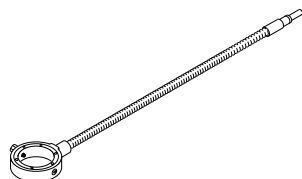
Combination light guide
single branch, flexible, M-PVC $\varnothing = 5$ mm/850 mm,
2-branch, gooseneck, $\varnothing = 4$ mm/600 mm
(31 154 402)

Dark field Adapters

WD 80 - 110 mm (31 157 562)
WD 50 - 80 mm (31 157 567)
WD 30 - 50 mm (31 157 569)



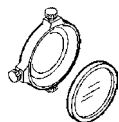
Slit ring light for incident dark field
flexible length approx. 1000 mm
(31 157 406)



4-point ring light
flexible length approx. 1000 mm
 $\varnothing = 66$ mm (31 157 402)

Polarisations Filter

for slit ring light $\varnothing = 66$ mm (31 158 430)
for slit ring light $\varnothing = 58$ mm (31 158 440)
for slit ring light $\varnothing = 80$ mm (31 158 450)

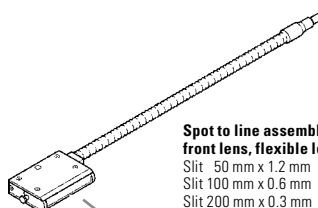


Slit ring light
flexible length approx. 1000 mm
 $\varnothing = 58$ mm (31 157 410)
 $\varnothing = 66$ mm (31 157 420)
 $\varnothing = 80$ mm (31 157 080)
 $\varnothing = 85$ mm (31 157 085)



Maxi ring light
 $\varnothing = 150$ mm (31 157 440)

Holder for Maxi ring light
 $\varnothing = 58$ mm (31 157 445)



Spot to line assembly with adjustable front lens, flexible length approx. 1000 mm, M-PVC
Slit 50 mm x 1.2 mm (31 160 100)
Slit 100 mm x 0.6 mm (31 160 110)
Slit 200 mm x 0.3 mm (31 160 120)

Gooseneck light guide

1-branch
 $\varnothing = 4.5$ mm/600 mm (31 154 101)

Gooseneck light guide

2-branch
 $\varnothing = 4.5$ mm/600 mm (31 154 202)

Gooseneck light guide

3-branch
 $\varnothing = 4.5$ mm/600 mm (31 154 302)

Flexible light guide

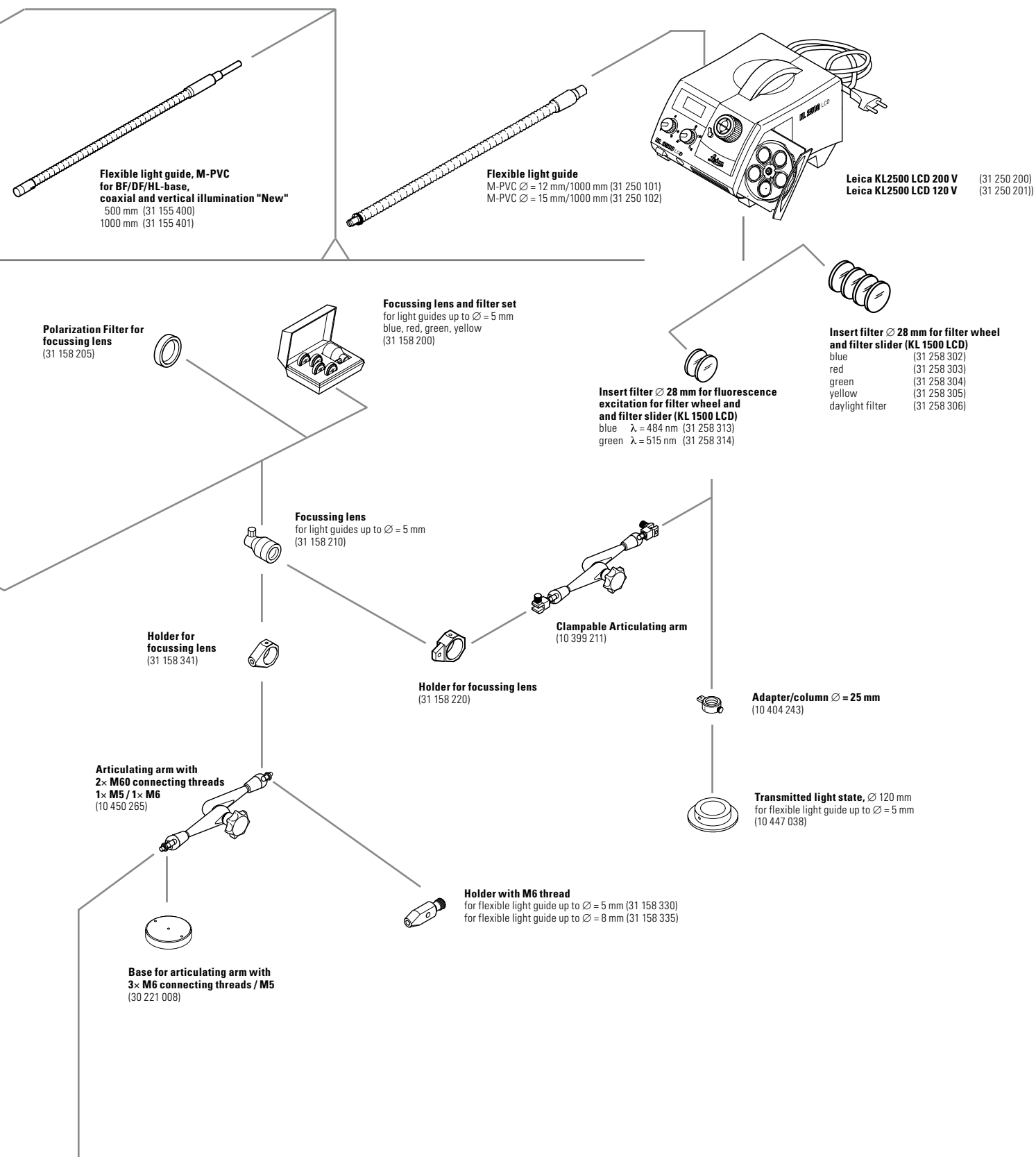
1-branch, M-PVC
 $\varnothing = 5.0$ mm/1000 mm (31 155 100)
(only for KL 1500 LCD)
 $\varnothing = 5.0$ mm/1600 mm (31 155 102)
 $\varnothing = 8.0$ mm/1000 mm (31 155 103)

Flexible light guide

2-branch, M-PVC
 $\varnothing = 4.5$ mm/1000 mm (31 155 204)
 $\varnothing = 5.0$ mm/1600 mm (31 155 205)

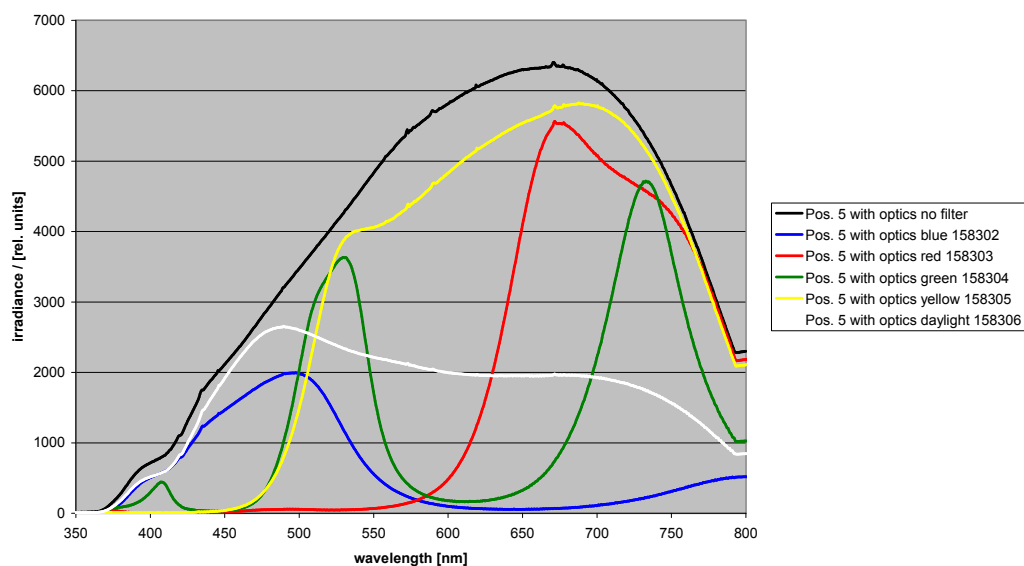
Flexible light guide

2-branch, M-PVC
 $\varnothing = 4.5$ mm/1000 mm
(31 155 206)



LEICA KL1500 LCD ÜBERTRAGUNGSKURVE

KL 1500 LCD, typ. spectra at light guide exit with color filters



LEICA KL2500 LCD ÜBERTRAGUNGSKURVE

KL 2500 LCD, spectra at light guide exit with color filters

