

Living up to Life



Leica KL300 LED

Compact, modular cold light source for routine stereomicroscopes



Optimized Illumination for Peak Performance

The key to top imaging performance is a well illuminated sample. Clear, bright illumination also reduces eye strain, fatigue, and error rates. Cold light sources and fiber optics are often used to illuminate samples under a stereomicroscope for several reasons.

REASONS TO USE COLD LIGHT SOURCES

- › A wide variety of fiber optic light guides are available, allowing multiple illumination techniques to generate the best possible image of the sample.
- › They generate intense, bright, focused light that is easily guided to the sample.
- › The infrared (heat generating) spectrum of light is filtered out to reduce the possibility of damaging heat-sensitive samples or injuring users.
- › The bulk of the system is removed from the immediate workspace, and the compact fiber optic light guides do not interfere with sample handling and accessibility.

Leica's Routine Modular Lighting System is a powerful, compact, yet affordable cold light source that is ideal for many routine applications in industry and life science.

At the heart of this system is the powerful Leica KL300 LED light source. This light source can be combined with a vast array of accessories such as standard one or two arm fiber light guides, one or two arm goosenecks, coaxial lighting, near vertical illumination, and transmitted light base adapters. This allows users to customize the system to meet the most demanding routine application needs.

Due to the modular design, the Leica KL300 LED can be mounted to nearly any routine microscope stand or be used as a stand-alone illumination device.

LEICA COLD LIGHT SOURCE – ILLUMINATION METHOD

In fiber optics, light is transmitted in bundled fiber optic cables made of glass. Glass provides the greatest possible safety during use. It cannot be burned, and is not sensitive to heat, UV rays, and other environmental influences. Since the Leica KL300 LED is LED-based, there is no IR present.





The Freedom of Choice in Light

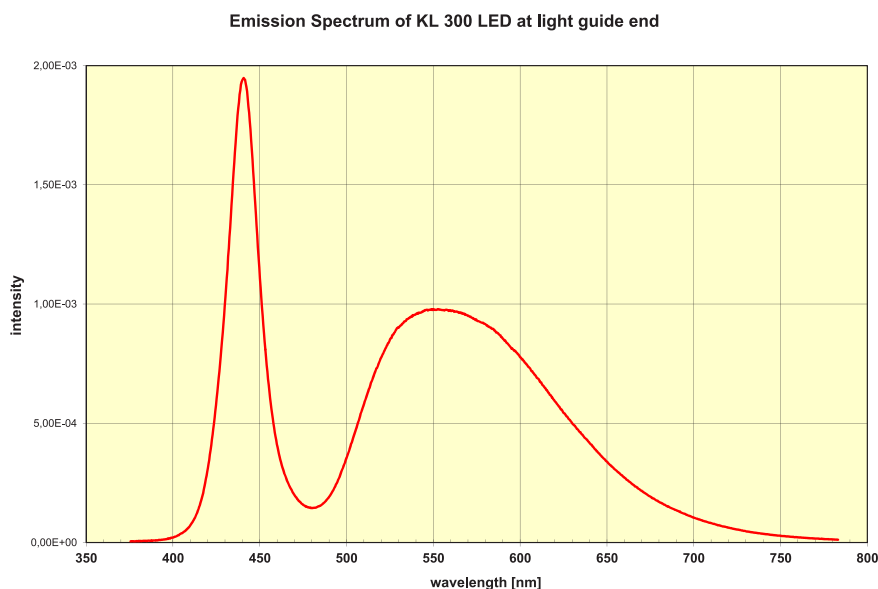
The Leica KL300 LED employs state-of-the-art technology, using a single powerful LED driven light source to provide an more efficient alternative to conventional halogen cold light sources. The Leica KL300 LED has an extremely long service lifetime of approximately 50 000 hours. This means users never have to change bulbs, which can reduce the cost of ownership and avoid service and downtime. Compared to conventional halogen light sources, the Leica KL300 LED consumes up to 80 % less energy, which not only has a positive impact on the environment, but also has the potential to save money.

The brightness is equivalent to a 30-watt halogen lamp, which makes it an ideal illumination system for the requirements of routine stereomicroscopes. Emitting neutral white light (approx. 5 600 K) the Leica KL300 LED is DC driven. This provides ripple free illumination that is well suited for digital imaging applications. An additional benefit is that the color temperature does not change when the light source is dimmed.

Benefits of Leica KL300 LED

The Leica KL300 LED combines all advantages of LED light with the advantages of fiber optic illumination. This offers higher light intensities focused to a very small field of view.

The Leica KL300 LED is easy to operate and is an excellent value.



Leica KL300 LED – Light with Variety!

SMALL FOOTPRINT

In most laboratory and industrial environments bench space is at a premium. Since the Leica KL300 LED can be directly attached to most routine stereomicroscope stands, it makes the most of available work space! The advantages:

- › The complete microscope and illumination system requires minimal space and is easily carried from one work place to another.
- › The illumination retains a constant orientation toward the sample when the stereomicroscope is refocused or moved.

CATALOG REFERENCES

31 120 300	Leica KL300 LED fiber optic light source
10 446 386	Single flexible light guide, 550 mm
10 446 387	Double flexible light guide, 750 mm
10 446 388	Single gooseneck, 500 mm
10 446 389	Double gooseneck, 500 mm
10 446 390	6-point ringlight, 58 mm I.D., 750 mm
10 447 038	Transmitted light stage
10 446 391	Focussing lens
10 447 055	Daylight conversion filter for focusing lens
31 128 207	Warm light filter for focusing lens
10 446 392	Universal light guide
10 447 152	Double universal light guide
10 446 378	Flexible light guide mount
10 447 009	Universal light guide mount

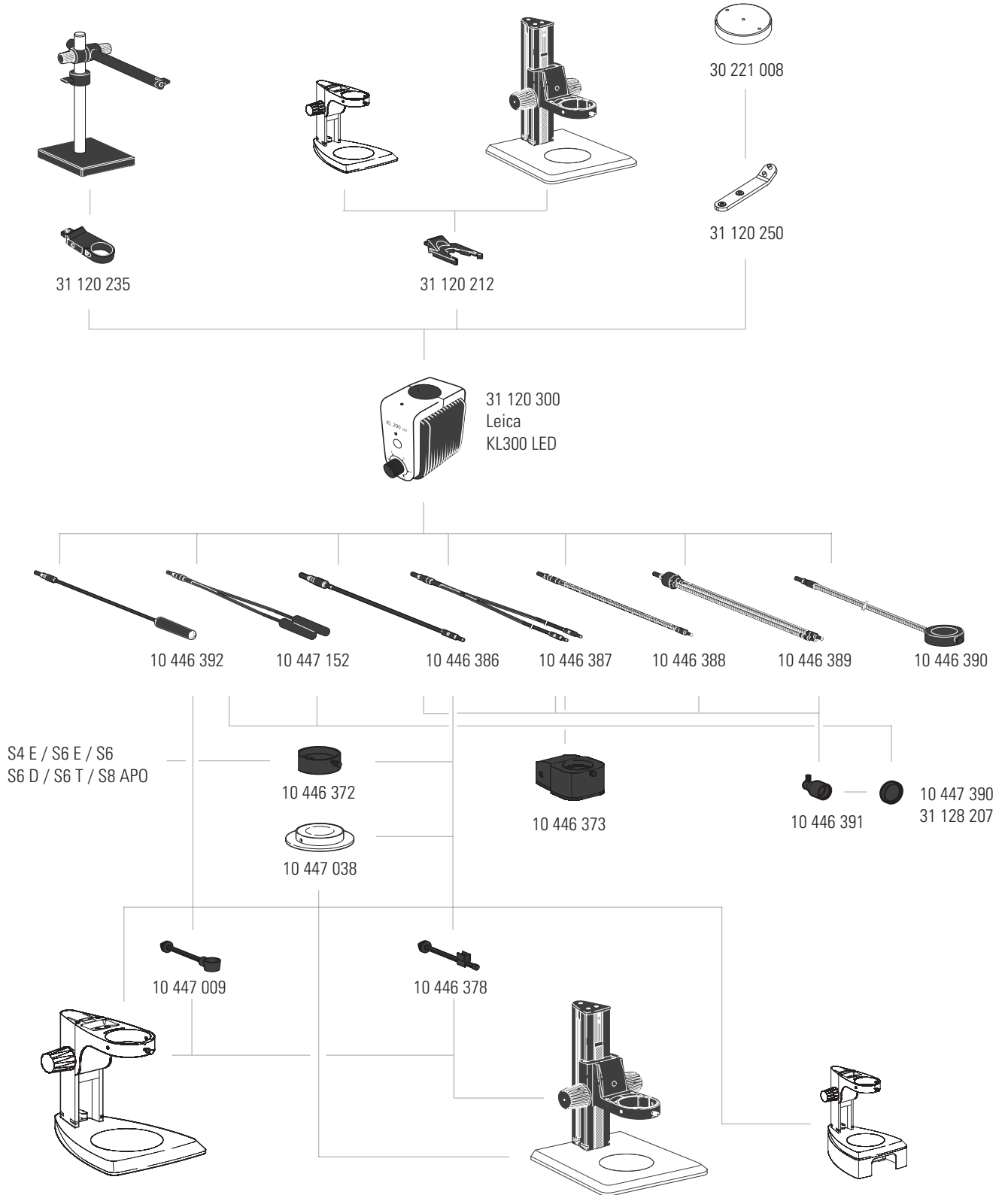
FIBER OPTICS MAKE THE DIFFERENCE

The fiber optic light guides are made from specially selected glass to provide the highest transmission rates and optimal light distribution. This creates the brightest, most evenly distributed beam of light possible at the exit end of the fiber bundle. The optical fiber bundles are encased in a high quality coating of halogen-free, self-erasing Megolon®. This environmentally friendly process creates a casing that is strong and flexible. It will not become brittle or crack with time and does not leave performance robbing deposits on the glass bundles it protects. The entrance ends of the fiber guides are heat resistant to prevent de-lamination and assure long fiber optic life.

CATALOG REFERENCES

10 446 372	Near vertical illuminator
10 446 373	Coaxial illuminator
30 221 008	Base Plate for Leica KL300 LED
31 120 250	Leica KL300 LED Adapter for Base Plate
31 120 235	Leica KL300 LED Adapter for Swing Arm Stand
31 120 212	Leica KL200 LED Bracket for S-Stand

Assembly Diagram



Technical Details

Dimensions (W × D × H)	115 mm × 106 mm × 59 mm
Weight	0.35 kg
Material	-
Operational voltage of the network component, volt-sensitive	100 ... 240 V ~ 50/60 Hz
Power consumption	5 VA
Brightness control	continuous
Typical LED Service time	50 000 hours
Cooling	convection ventilation, silent and vibration-free
Maximum technical usable bundle diameter of light guide	6 mm
Total light stream at light guide output on level III (maximum) - Light Guide Ø 4.5 mm	80 lumens
Color temperature	5600 K
Attachments	
Various adapters	35 mm column M-Series, S-Series
Base plate	stand-alone version
Light guides	one and two-armed, flexible and self-supporting
Focussing front lens	adjustable (optional warm light filter)
Universal light guides	with convex lens
Various arms	to secure the light guides to the stereomicroscope
6-point ring light	shadow-free, homogeneous illumination
Coaxial, vertical, and transparency illumination	usable with flexible light guides
Protective coating on light guides	halogen-free, Megolon®
Conformance with standards	The Leica KL300 LED is in compliance with the CE regulations. (Power supply: CE, UL, PSE)

The statement by Ernst Leitz in 1907, “**With the User, For the User,**” describes the fruitful collaboration with end users and driving force of innovation at Leica Microsystems. We have developed five brand values to live up to this tradition: Pioneering, High-end Quality, Team Spirit, Dedication to Science, and Continuous Improvement. For us, living up to these values means: **Living up to Life.**

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