

# Leica LED 1000

modular daylight illumination for stereomicroscopes



# Daylight quality illumination

This Leica-LED-illumination sets new standards in the illumination for stereo microscopes by providing daylight quality illumination in combination with additional unique features:

- Daylight light quality (5.000 K)
- Flicker-free illumination
- Ripple-free illumination
- "Cold light"
- Continuous brightness control
- Long lifetime of the bulbs, as typical for LED's
- Operation without noise and vibration
- Extremely compact design
- No breakable or sensitive light guides
- · Antistatic ringlight and spotlight-housing
- Noise- and vibration-free
- Possibility of mobile operation, by using a 24 V battery
- Power supply with automatic calibration for operation from 100 240 V
- Modular system
- Extensive range of accessories
- Excellent price-performance ratio

# The system

#### The modular system consists of the following basic modules:

- · Power supply with control unit
- LED-modules
- Accessories

#### The following combinations are possible:

power supply and control unit together with:

- One ringlight
- One ore two spotlights
- One ringlight and one spotlight

# The modules



#### **Power supply**

The automatic switch mode power supply is adjusting itself automatically to the available mains voltage from 100 V to 240 V and provides a stable light output during voltage fluctuations. It has a 3-pin plug connector.



#### **Control unit**

The compact control unit features an ON-OFF switch, an infinitely adjustable brightness regulator with a "turbo range", and two connection sockets for accommodating the LED illumination units.



#### **LED** ringlight

The LED ringlight contains 40 LED's and provides an exceptionally bright and homogenuous illumination of the object. It is designed for microscopes with an objective diameter of 66 mm. The fixation of the ringlight at the microscope is secured by means of a screw and spring in a way which protects the objective. For other objectives suitable adapters are available.



#### **LED** spotlight

The LED spotlight contains 19 LED's and can be attached directly to the microscope and positioned as required by means of a goose neck. The goose necks also can be attached to the base plate.



#### Adapters for ringlight

For the fixation of the ringlight to other objectives, suitable adapters are available.



#### Polarisation filter for ringlight

The polarisation filter set consists of a polarizer and an analyzer and eliminates reflections. The analyser is inserted into the ringlight, the turnable polarizer is attached outside the ringlight.



#### Filters for spotlight

Snap-on filters are available in the colours blue, green, yellow and red.



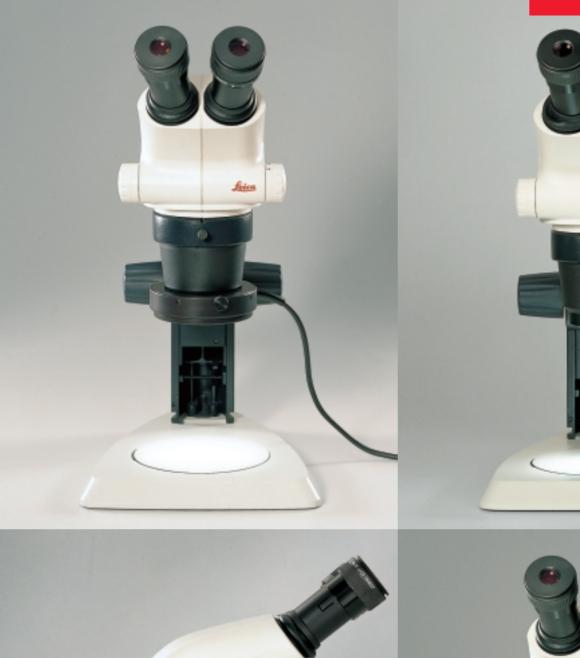
#### Goose neck arms for spotlight

The semi rigid goose neck arms allow the required positionning of the spotlight. They are available in different lengths. They are inserted into the spotlight and can be fixed either on the microscope or on the base plate.



#### Base plate for goose neck arm

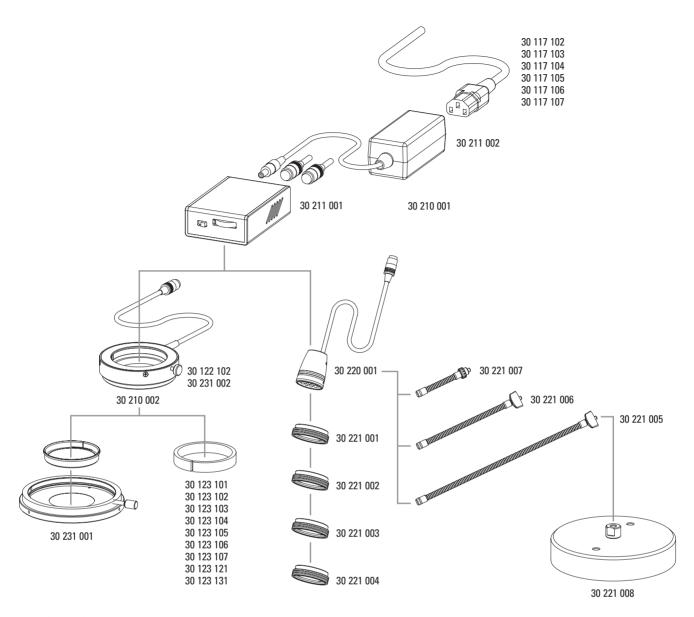
The base plate allows, in combination with the goose neck arm, an absolutely free positionning of the spotlight.











## Catalogue references

30 210 001	Power supply with control unit
30 211 001	Control unit

30 211 002 Power supply

Item No.

30 210 002 LED ringlight (incl. adapter 66/58 mm)

30 220 001 LED spotlight

30 117 102 Power cord USA/Can/J

30 117 103 Power cord Italy

30 117 104 Power cord EU

30 117 105 Power cord Switzerland

30 117 106 Power cord UK

30 117 107 Power cord Australia

30 221 008 Base plate for M5 screw

30 123 101 Adapter for MS5/MZ6 (Achr. obj. 1.0x/0.8x/0.63x/0.32x)

30 123 102 Adapter for MS5/MZ6 (Achr. obj. 1.5x)

30 123 103 Adapter for MS5/MZ6 (Achr. obj. 2.0x)

30 123 104 Adapter for M420 (Obj. Makro/Apo Zoom)

30 123 105 Adapter for M5A (Add. obj. 2.0x/1.5x/0.5x)

30 123 106 Adapter for MZ6 Obj. 411597

30 123 107 Adapter for ringlight 66/58 mm

30 123 107 Adapter for ringlight 60/36 min

30 123 121 Adapter for GZ6 (only for working distance 150 mm and more)

30 123 131 Adapter for GZ4

30 231 001 Polarizing filter set

30 221 001 Filter blue

30 221 002 Filter green

30 221 003 Filter yellow 30 221 004 Filter red

30 122 102 Clamping ring for LED ringlight

30 231 002 Screw for clamping ring for ringlight

### Technical data

Plug connector         3-pin IEC 320           Voltage range         100 - 240 V AC           Mains frequency         50/60 Hz           Max. power input         15 VA           Dimensions         91.5 x 40.5 x 28.5 mm           Control unit:           Power supply           24 V DC +/- 5 %, hollow pin plug 5.5 x 2.1 mm, 250 mA           Connections to ring- and spotlight         2 x 9-pin mini DIN sockets           Other elements         ON-OFF switch and potentiometer wheel           Brightness control         3 - 30 mA           Dimensions         95.5 x 64 x 28.5 mm           Ringlight:           LED's         40           Colour temperature         5.000 K           Material         anti static           Dimensions         for objective Ø 66 mm,           exterior Ø 94 mm, h = 25 mm           Length of cable         1.000 mm           Spotlight:           LED's         19           Colour temperature         5.000 K           Material         anti static           Dimensions         Ø 34 mm, h = 45 mm           Length of cable         1.000 mm           Goose necks:         anti static           Dimensions </th <th>Mains supply unit:</th> <th></th>	Mains supply unit:	
Mains frequency       50/60 Hz         Max. power input       15 VA         Dimensions       91.5 x 40.5 x 28.5 mm         Control unit:         Year supply       24 V DC +/- 5 %, hollow pin plug 5.5 x 2.1 mm, 250 mA         Connections to ring- and spotlight       2 x 9-pin mini DIN sockets         Oth-OFF switch and potentiometer wheel         Brightness control       3 - 30 mA         Dimensions       95.5 x 64 x 28.5 mm         Ringlight:         LED's       40         Colour temperature       5.000 K         Material       anti static         Dimensions       for objective Ø 66 mm,         exterior Ø 94 mm, h = 25 mm         Length of cable       1.000 mm         Spotlight:         LED's       19         Colour temperature       5.000 K         Material       anti static         Dimensions       Ø 34 mm, h = 45 mm         Length of cable       1.000 mm         Goose necks:       Material       semirigid brass-steel, black painted         Dimensions       Ø 8 mm, l = 85/200/300 mm	Plug connector	3-pin IEC 320
Max. power input       15 VA         Dimensions       91.5 x 40.5 x 28.5 mm         Control unit:         Power supply       24 V DC +/- 5 %, hollow pin plug 5.5 x 2.1 mm, 250 mA         Connections to ring- and spotlight       2 x 9-pin mini DIN sockets         Other elements       ON-OFF switch and potentiometer wheel         Brightness control       3 - 30 mA         Dimensions       95.5 x 64 x 28.5 mm         Ringlight:         LED's       40         Colour temperature       5.000 K         Material       anti static         Dimensions       for objective Ø 66 mm,         exterior Ø 94 mm,       h = 25 mm         Length of cable       1.000 mm         Spotlight:         LED's       19         Colour temperature       5.000 K         Material       anti static         Dimensions       Ø 34 mm, h = 45 mm         Length of cable       1.000 mm         Goose necks:       Material         Material       semirigid brass-steel, black painted         Dimensions       Ø 8 mm, l = 85/200/300 mm	Voltage range	100 - 240 V AC
Dimensions   91.5 x 40.5 x 28.5 mm	Mains frequency	50/60 Hz
Control unit:         24 V DC +/- 5 %, hollow pin plug 5.5 x 2.1 mm, 250 mA           Connections to ring- and spotlight         2 x 9-pin mini DIN sockets           Other elements         0N-0FF switch and potentiometer wheel           Brightness control         3 - 30 mA           Dimensions         95.5 x 64 x 28.5 mm           Ringlight:         LED's           LED's         40           Colour temperature         5.000 K           Material         anti static           Dimensions         for objective Ø 66 mm,           exterior Ø 94 mm, h = 25 mm           Length of cable         1.000 mm           Spotlight:         19           Colour temperature         5.000 K           Material         anti static           Dimensions         Ø 34 mm, h = 45 mm           Length of cable         1.000 mm           Gose necks:         Waterial           Material         semirigid brass-steel, black painted           Dimensions         Ø 8 mm, I = 85/200/300 mm	Max. power input	15 VA
Power supply	Dimensions	91.5 x 40.5 x 28.5 mm
Connections to ring- and spotlight  Other elements  ON-OFF switch and potentiometer wheel  Brightness control  3 - 30 mA  Dimensions  95.5 x 64 x 28.5 mm  Ringlight:  LED's  40  Colour temperature  5.000 K  Material  Dimensions  for objective Ø 66 mm,  exterior Ø 94 mm, h = 25 mm  Length of cable  1.000 mm  Spotlight:  LED's  19  Colour temperature  5.000 K  Material  anti static  Dimensions  for objective Ø 66 mm,  exterior Ø 94 mm, h = 25 mm  Length of cable  1.000 mm  Spotlight:  LED's  19  Colour temperature  5.000 K  Material  anti static  Dimensions  Ø 34 mm, h = 45 mm  Length of cable  1.000 mm  Goose necks:  Material  semirigid brass-steel, black painted  Dimensions  Ø 8 mm, l = 85/200/300 mm	Control unit:	
Other elements         ON-OFF switch and potentiometer wheel           Brightness control         3 - 30 mA           Dimensions         95.5 x 64 x 28.5 mm           Ringlight:           LED's         40           Colour temperature         5.000 K           Material         anti static           Dimensions         for objective Ø 66 mm,           exterior Ø 94 mm, h = 25 mm           Length of cable         1.000 mm           Spotlight:           LED's         19           Colour temperature         5.000 K           Material         anti static           Dimensions         Ø 34 mm, h = 45 mm           Length of cable         1.000 mm           Goose necks:            Material         semirigid brass-steel, black painted           Dimensions         Ø 8 mm, l = 85/200/300 mm	Power supply	24 V DC +/- 5 %, hollow pin plug 5.5 x 2.1 mm, 250 mA
Brightness control       3 - 30 mA         Dimensions       95.5 x 64 x 28.5 mm         Ringlight:         LED's       40         Colour temperature       5.000 K         Material       anti static         Dimensions       for objective Ø 66 mm,         exterior Ø 94 mm, h = 25 mm         Length of cable       1.000 mm         Spotlight:         LED's       19         Colour temperature       5.000 K         Material       anti static         Dimensions       Ø 34 mm, h = 45 mm         Length of cable       1.000 mm         Goose necks:       Material         Material       semirigid brass-steel, black painted         Dimensions       Ø 8 mm, l = 85/200/300 mm	Connections to ring- and spotlight	2 x 9-pin mini DIN sockets
Dimensions         95.5 x 64 x 28.5 mm           Ringlight:           LED's         40           Colour temperature         5.000 K           Material         anti static           Dimensions         for objective Ø 66 mm,           Length of cable         1.000 mm           Spotlight:           LED's         19           Colour temperature         5.000 K           Material         anti static           Dimensions         Ø 34 mm, h = 45 mm           Length of cable         1.000 mm           Goose necks:         Material           Material         semirigid brass-steel, black painted           Dimensions         Ø 8 mm, l = 85/200/300 mm	Other elements	ON-OFF switch and potentiometer wheel
Ringlight:           LED's         40           Colour temperature         5.000 K           Material         anti static           Dimensions         for objective Ø 66 mm,           exterior Ø 94 mm, h = 25 mm           Length of cable         1.000 mm           Spotlight:           LED's         19           Colour temperature         5.000 K           Material         anti static           Dimensions         Ø 34 mm, h = 45 mm           Length of cable         1.000 mm           Goose necks:         Material           Material         semirigid brass-steel, black painted           Dimensions         Ø 8 mm, l = 85/200/300 mm	Brightness control	3 - 30 mA
LED's       40         Colour temperature       5.000 K         Material       anti static         Dimensions       for objective Ø 66 mm,         exterior Ø 94 mm, h = 25 mm         Length of cable       1.000 mm         Spotlight:         LED's       19         Colour temperature       5.000 K         Material       anti static         Dimensions       Ø 34 mm, h = 45 mm         Length of cable       1.000 mm         Goose necks:       Material         Material       semirigid brass-steel, black painted         Dimensions       Ø 8 mm, l = 85/200/300 mm	Dimensions	95.5 x 64 x 28.5 mm
Colour temperature       5.000 K         Material       anti static         Dimensions       for objective Ø 66 mm,         exterior Ø 94 mm, h = 25 mm         Length of cable       1.000 mm         Spotlight:         LED's       19         Colour temperature       5.000 K         Material       anti static         Dimensions       Ø 34 mm, h = 45 mm         Length of cable       1.000 mm         Goose necks:       Material         Material       semirigid brass-steel, black painted         Dimensions       Ø 8 mm, l = 85/200/300 mm	Ringlight:	
Material         anti static           Dimensions         for objective Ø 66 mm,           exterior Ø 94 mm, h = 25 mm           Length of cable         1.000 mm           Spotlight:           LED's         19           Colour temperature         5.000 K           Material         anti static           Dimensions         Ø 34 mm, h = 45 mm           Length of cable         1.000 mm           Goose necks:           Material         semirigid brass-steel, black painted           Dimensions         Ø 8 mm, l = 85/200/300 mm	LED's	40
Dimensions         for objective Ø 66 mm,           Length of cable         1.000 mm           Spotlight:           LED's         19           Colour temperature         5.000 K           Material         anti static           Dimensions         Ø 34 mm, h = 45 mm           Length of cable         1.000 mm           Goose necks:         Material           Material         semirigid brass-steel, black painted           Dimensions         Ø 8 mm, l = 85/200/300 mm	Colour temperature	5.000 K
exterior Ø 94 mm, h = 25 mm           Length of cable         1.000 mm           Spotlight:           LED's         19           Colour temperature         5.000 K           Material         anti static           Dimensions         Ø 34 mm, h = 45 mm           Length of cable         1.000 mm           Goose necks:         Material           Material         semirigid brass-steel, black painted           Dimensions         Ø 8 mm, l = 85/200/300 mm	Material	anti static
Length of cable         1.000 mm           Spotlight:           LED's         19           Colour temperature         5.000 K           Material         anti static           Dimensions         Ø 34 mm, h = 45 mm           Length of cable         1.000 mm           Goose necks:         Semirigid brass-steel, black painted           Dimensions         Ø 8 mm, l = 85/200/300 mm	Dimensions	for objective Ø 66 mm,
Spotlight:           LED's         19           Colour temperature         5.000 K           Material         anti static           Dimensions         Ø 34 mm, h = 45 mm           Length of cable         1.000 mm           Goose necks:         Material           Material         semirigid brass-steel, black painted           Dimensions         Ø 8 mm, l = 85/200/300 mm		exterior Ø 94 mm, h = 25 mm
LED's   19	Length of cable	1.000 mm
Colour temperature         5.000 K           Material         anti static           Dimensions         Ø 34 mm, h = 45 mm           Length of cable         1.000 mm           Goose necks:         Material           Material         semirigid brass-steel, black painted           Dimensions         Ø 8 mm, l = 85/200/300 mm	Spotlight:	
Material         anti static           Dimensions         Ø 34 mm, h = 45 mm           Length of cable         1.000 mm           Goose necks:         Semirigid brass-steel, black painted           Dimensions         Ø 8 mm, l = 85/200/300 mm	LED's	19
Dimensions         Ø 34 mm, h = 45 mm           Length of cable         1.000 mm           Goose necks:         Semirigid brass-steel, black painted           Dimensions         Ø 8 mm, l = 85/200/300 mm	Colour temperature	5.000 K
Length of cable         1.000 mm           Goose necks:         Semirigid brass-steel, black painted           Dimensions         Ø 8 mm, I = 85/200/300 mm	Material	anti static
Goose necks:           Material         semirigid brass-steel, black painted           Dimensions         Ø 8 mm, I = 85/200/300 mm	Dimensions	Ø 34 mm, h = 45 mm
Material     semirigid brass-steel, black painted       Dimensions     Ø 8 mm, I = 85/200/300 mm	Length of cable	1.000 mm
Dimensions Ø 8 mm, I = 85/200/300 mm	Goose necks:	
	Material	semirigid brass-steel, black painted
Conformity with standards CE		Ø 8 mm, I = 85/200/300 mm
	Conformity with standards	CE

## Dimensions

