

# GX Wolf Microscopes

## product datasheet

Illumination systems for stereo microscopes, monozoom microscopes, macro lenses and supplementary lighting

Fibre Optics

LED

Spot Lamps

Fluorescent Lamps

### Fibre Optic Illumination Systems

Fibre optic illumination systems comprise of two main components: **Lamphouse & Fibre Optic Light Guide**

#### L1 Fibre Optic System

L1



##### L1 Lamphouse

Low cost, 150W 21V fan cooled high intensity lamphouse with intensity control and easy lamp access with autotcut-off.

#### L12 Fibre Optic System

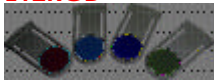
L12



##### L12 Lamphouse

Stylish, 150W 21V quiet, fan cooled high intensity lamphouse with intensity control and easy lamp access with autotcut-off. Filter port with ND filter supplied.

L12RGB



##### L12RGB Filter Set

RGB filter set for use with L12 lamphouse.

#### R Series Fibre Optic Guides



##### R- Series

Specialised Fibre Optic Light Guides for those demanding applications. Incorporating the latest techniques in adjustable angle viewing and fibre arrangement.

#### Light Guides for L1 Lamphouse

L2

L2 Single Light Guide 550mm



L3 Dual Light Guide 550mm



L4 Ring Light Guide (Flexible)  
800mm ID55.5mm



#### Light Guides for L12 Lamphouse

L122 Single Light Guide 432mm



L123 Dual Light Guide 432mm



L124 Ring Light Guide (Flexible)  
864mm ID58mm



#### Specialised Light Guides for L12 & L1 Lamphouses

R90M



Eight point, adjustable ring light (Flexible)  
610mm ID66mm  
Terminations diam 45mm

R90P



Eight point adjustable ring light (Flexible)  
610mm ID66mm  
Terminations diam 54mm

RC10



Annular ring light (Flexible)  
610mm ID54mm

R88



8 point ring light (Flexible)  
610mm ID54mm

Other Specification Lamphouses and Light Guides are Available on Request

[www.wolflabs.com](http://www.wolflabs.com)

## LED Ring Illuminators

Providing excellent white colour temperature, cool light with very long lasting LED lamp life and minimal intensity decay over time



**ULTRABRIGHT 144 LED Ringlight**  
GXMLEDYK-B144T

One of the brightest and most flexible LED ring illuminators ever made with an amazing 144 LEDs (64 LED version shown in picture), with adjustable intensity and fully selectable segment control providing directional illumination with a separate controller handset.

The ring light is lightweight and will fit most models of stereo microscopes as well as monozoom microscopes and lenses.

The Internal diameter of the ring is 61mm and it can be attached to the microscope using 3 screws.

This ring light can be attached to the nose of the microscope or to the auxiliary objective of a stereo microscope.

#### Specifications:

- 144 LED Bulbs
- input: 90-264V 50/60Hz
- output: 12V 4.5W
- colour temperature: 6400K
- inner diameter 61mm
- outer diameter 98mm
- working distance 40mm -250mm
- brightness: 20000Lux at height of 100mm
- suitable for use with:
  - Stereo microscopes
  - Monozoom microscopes
  - Macro lenses
  - Experimental rigs



**60 LED Ringlight**  
GXMNORMA341103

A first rate and highly popular adjustable intensity LED ring illuminator with separate power controller.

You can be sure that this ring light will not cause focus drift when mounted on your microscope because the ring is extremely lightweight.

The Internal diameter of the ring is 61.5mm and it can be attached to the microscope using 3 screws.

It is supplied with a threaded adapter ring suitable for our range of XTL microscopes. This ring provides an extension to the nose of the microscope onto which the screws clamp thereby eliminating any possibility of scratches and slippage. The threaded adapter cannot be used if a auxiliary objective is already in place, under these circumstances the ring light can be attached to the nose of the microscope or to the objective.

#### Specifications:

- 60 LED Bulbs
- input: 90-265V 50/60Hz
- output: 24V 6W
- colour temperature: 6400K
- inner diameter 61.5mm
- suitable for use with:
  - Stereo microscopes
  - Monozoom microscopes
  - Macro lenses
  - Experimental rigs



**48 LED Ring Light**  
GXMLED48T1

A low cost adjustable intensity LED ring illuminator with illumination control on the side of the ring light itself, supplied with a separate mains power adapter.

This is a simple LED ring light with an internal diameter of 59.75mm and it can be attached to the microscope using 3 screws.

#### Specifications:

- 48 LED Bulbs
- input: 90-265V 50/60Hz
- output: 24V 6W
- colour temperature: 6400K
- inner diameter 59.75mm
- suitable for use with:
  - Stereo microscopes
  - Monozoom microscopes
  - Macro lenses
  - Experimental rigs



## LED Illuminators

Providing excellent white colour temperature, cool light with very long lasting LED lamp life and minimal intensity decay over time



### LED Dual Spot Light GXMNORMA354201

A practical alternative to dual fibre optic gooseneck illuminators. This system provides two, cool, white light LED spot lamps which can be clamped to a track stand or post of a stereo microscope, monozoom microscope and camera/macro lens set-up. The intensity is adjustable on the separate power supply.

#### Specifications:

- 24V DC 4W
- gooseneck length: 240mm
- power supply: AC 90-240V 50/60
- clamp jaw size: from 25mm to 37.2mm



### LED Backlight GXMNORMA344101

A really useful cool, white, adjustable intensity backlight for viewing transparent objects under stereo microscopes, monozoom microscopes and macro lenses.

#### Specifications:

- lightbox dimensions: 86x52x16mm
- active area: 2x2"
- power supply: AC 90-240V 50/60 Hz
- output voltage: DC 18-24V
- current: 0.5A Max.
- power consumption: 6W Max.

## Advantages and Disadvantages of LEDs in Microscopy

### ADVANTAGES:

#### Good Colour Temperature.

The lamps deployed in the illuminators here are at the whiter end of the spectrum, typically at a colour temperature of 6400K. This is a much whiter light than you obtain from halogen capsules and halogen spot lamps. This makes them very useful for photography as most modern cameras seem to respond better to the type of light emitted by LEDs than halogen lamps.

#### Cool

The LED lamps used in these illuminators are quite large and radiate very little heat. This has obvious safety benefits and is very useful when observing live specimens.

#### Long Lasting

Some suppliers quote 100,000 hours life but we estimate 10,000 hours at worst as being more likely. Clearly significantly longer than any other light source combined with high performance throughout the lifetime. This gives a considerable saving on consumable costs.

### DISADVANTAGES:

#### Intensity

The LED ring lights give an equivalent brightness to a 30W fibre optic lamphouse. Fibre optics are still better where much brighter light is required.

## Spot Lamps

Available in a variety of formats and types of lamps. They are a low cost solution for many inspection tasks.



### Flexispot

The FLEXISPOT high-intensity spot-lamp has been specially designed for use with stereo microscopes at medium to high powers where a convenient and manoeuvrable light source is required.

The FLEXISPOT three-lens optics produce an evenly illuminated circular patch of light large enough to fill the field of view of a stereo microscope at all normal magnifications. The double-link flexible arm, attaching the spot-lamp to the power supply unit, is highly adjustable and stays precisely where positioned. The field covered will reduce slightly and the intensity of illumination increase, as the spot-lamp is moved towards the specimen. The beam heat output is low, an advantage with heat sensitive and living specimens.

- Spot lighting exactly where needed
- Very-low heat output
- Even field illumination
- Compact construction
- Lamp conveniently mounts anywhere required

The lamp body is mounted on a highly manoeuvrable stay-put jointed arm, with adjustable tension on each of the three tough plastic joints. Each of the two black anodised aluminium link-arms is 60mm in length. This arrangement enables the user to direct the beam very precisely where required. The flexible arm is mounted directly onto the 6 volt transformer unit, provided with an ON/OFF switch. The lamp mounting is stable at any normal adjustment angle. The FLEXISPOT is very suitable for the study of small insects, botanical and similar specimens, mineral samples and for gemmological applications, as it produces a tight intense beam with little heat output. The FLEXISPOT uses a 6V 1.2A flat-filament bayonet fitting bulb code MA560. The bulb gives a warm tungsten coloration to the beam. Bulb access is simple.



### MA264 Series Spot Illuminators

#### MA264H Versatile Halogen Illuminator

Variable intensity versatile halogen illuminator on detachable articulated arm with swivel joint. Pre-focused three-lens collecting system creates sharply defined spot illumination without color fringes. Acid and reagent resistant. (Available in 110V and 220/240V models).

#### MA264T Versatile Tungsten Illuminator

Variable intensity versatile tungsten illuminator on detachable articulated arm with swivel joint. Pre-focused three-lens collecting system creates sharply defined spot illumination without color fringes. Acid and reagent resistant. (Available in 110V and 220/240V models)



### MH-01 Flexible Arm Halogen Spot

This high quality, powerful, adjustable intensity lamp is ideal for a large number of illumination tasks and is excellent value for money



### MA263 Free-Standing Illuminator

High intensity miniature flood-light with built-in heat absorbing filter, enclosed in a vented, adjustable lamphouse. 230V 30W

## Fluorescence Illuminators

Bright, even, diffuse lighting solutions



### Minifluor Panel Light

The MINIFLUOR is a compact system-mounting fluorescent illuminator principally for use at low powers where even, shadow-free lighting is required at a modest cost and with very long tube life. It has primarily been designed to suit the requirements of electronics assembly and inspection using low-power microscopes. It has also proven very suitable for other applications where very flat illumination is advantageous. Replaces ring-illuminators for most applications economically and conveniently.

- Lamp mounts anywhere required
- Very-low heat output
- Even low-shadow field illumination
- Compact construction
- Highly manoeuvrable mounting



### RFL-8 & RFL-10 Ring Lights

Simple to use, ultra-low cost fluorescent ring lights that can attach to many stereo microscope objective housings. The most popular RFL-8 model has an 8W fluorescent ring lamp. The 10W RFL-10 model can be supplied on special order. ID60mm.

#### RFL4



A very simple fluorescent panel light which can be used as an incident lamp or base uplighter. 9W approx 4in x 3in