

## Halogen Light Source 100W FHL-102

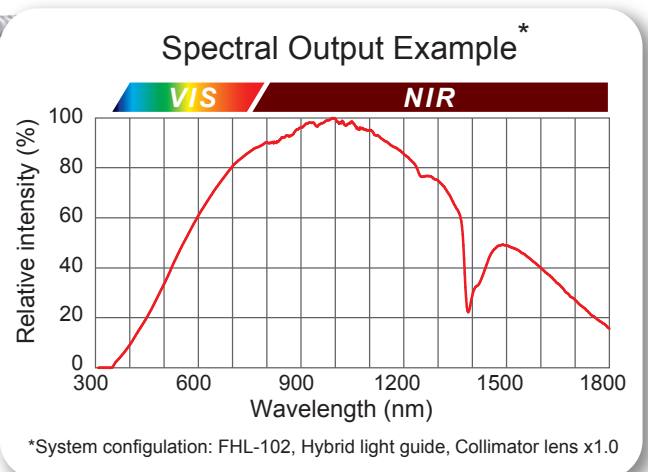
### High Stability Halogen Illuminator

#### Features

- NIR output
- Light control by the variable slit
- Compact design
- High stability
- Flexible illumination by light guide
- RS-485 remote control

#### Applications

- Inspection illuminator  
Semiconductor/Agricultural crops/Foods
- Microscope
- Photoreaction
- Bioscience
- Spectrometry
- Bias light for spectral sensitivity measurement



# Features

## Shutter Function

## Light Control Function

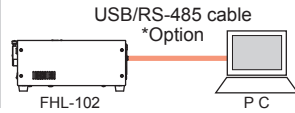
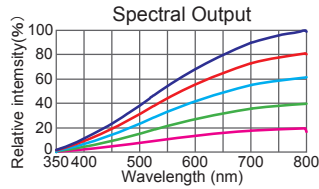
The light intensity is mechanically controlled by the variable slit. There is no change in color temperature.

## RS-485 Remote Control

The FHL-102 can be controlled remotely by using USB/RS-485 cable. You can control several units by daisy chain connection.

### Remote Control Example

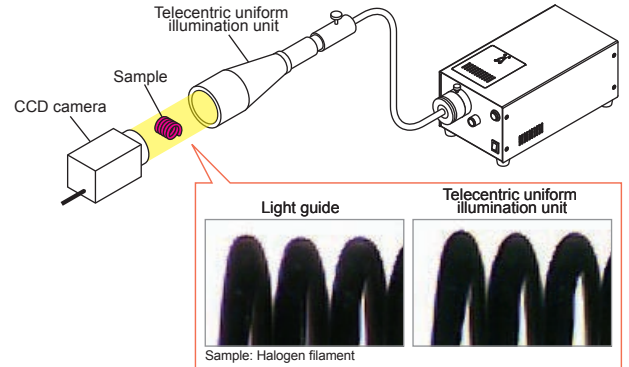
- Lamp ON/OFF
- Shutter function Open/Close
- Lamp status monitor



# Usage Example

## Telecentric Backlight Illumination

You can reflect the sample silhouette sharply by using the telecentric uniform illumination unit as the backlight illuminator.



# Options

## Light Guide



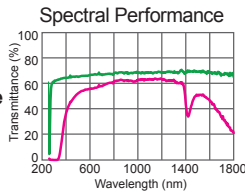
The output light from the FHL-102 is delivered to a desired direction by the light guide. We also offer a multi-branch light guide for custom.

### Hybrid Light Guide

Length(L):1m, 2m  
Fiber bundle: 5mm dia.  
Numerical aperture: 0.57

### Low OH Light Guide

Length(L):1m, 2m  
Fiber bundle: 5mm dia.  
Numerical aperture: 0.22



## Collimator Lens



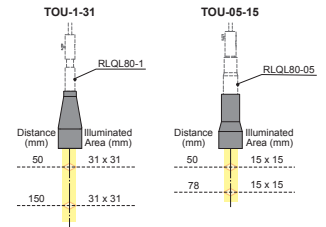
Each collimator lens is designed to provide the uniform illumination by using with the light guide.

x 0.5	x 1.0	x 2.0
Size : 43mm dia. x 245mm	Size : 28mm dia. x 192mm	Size : 55mm dia. x 217mm
Substrate : Fused silica	Substrate : Fused silica	Substrate : Fused silica
Distance (mm)	Distance (mm)	Distance (mm)
100	100	100
200	200	200
500	500	500
1000	1000	1000
Illuminated area(mm)	Illuminated area(mm)	Illuminated area(mm)
12x12	23x23	56x56
26x26	43x43	86x86
68x68	105x105	175x175
	209x209	325x325

## Telecentric Uniform Illumination Unit



The telecentric uniform illumination unit achieves a parallel illumination by connecting to a collimator lens.



## Line Light Guide



The line light guide delivers light with the line shape.

## Ring Light Guide



The ring light guide achieves a shadowless uniform illumination by illuminating from all directions.

## Filter Holder

An optical filter can be mounted inside the unit with the filter holder.

\*Size: 50x50mm / Thickness: less than 6mm

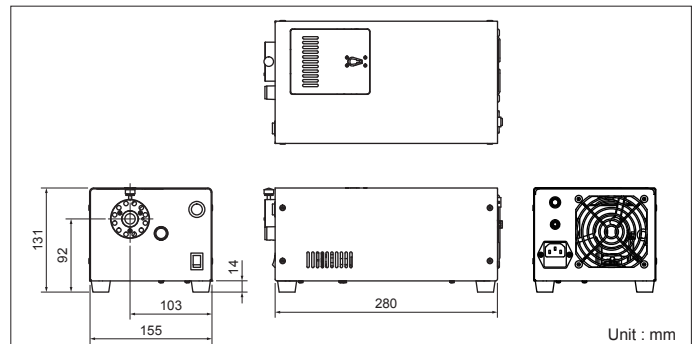
# General Specifications

- Model: FHL-102
- Output wavelength: from VIS to NIR
- Input voltage: AC100 - 240V 50/60Hz (Input range: AC90 - 264V)
- Apparent power: Less than 170VA
- Lamp type: Reflector halogen lamp 100W 12V100W (AL)
- Lamp voltage, current: 12V100W(DC) \*Representative value
- Lamp life: 1000h (Average) \*Not guaranteed
- Cooling method: Forced air cooling
- Functions: Shutter Open/Close: Solenoidal drive  
Light intensity control: Variable slit
- Control method: Built-in controller
- Remote control: RS-485
- Safety mechanism: Cooling fan problem, Lamp status monitor (RS-485)
- Recommended environment: Temperature 10 - 35 deg C  
Humidity 20 - 80% \*Avoid condensation
- Dimensions: 155(W) x 280(D) x 131(H)mm
- Weight: 3.4kg

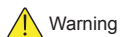
# Package Contents

- FHL-102 main unit
- Halogen 100W with reflector
- Heatsink
- AC cable (3m)
- Instruction manual

# Dimensions



\*Product specifications are subject to change without notice.



Warning

Do not touch the light guide adapter during the operation or immediately after turning off the lamp because it remains hot.

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