

# Accessories

*pE-4000*  
Options



Optional accessories for  
extended functionality  
and control.

**CoolLED**  
Simply Better Control



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## pE-Expansion Box



The pE-Expansion Box extends the control-options of the pE-4000 allowing it to receive and accept TTL and analogue signals. In its simplest mode it can accept a USB input to turn on individual LED's and generate a global TTL out to trigger peripherals synchronously (e.g. Cameras) or activate individual TTL signal output in synchrony with specific LEDs.

The pE-Expansion Box also enables the pE-4000 to receive TTL inputs for each LED channel and also to generate up to 8 TTL out signals (software dependent). The additional TTL channels can be used to trigger other illumination systems such as the pE-100<sup>wht</sup> (on the transmitted light port) or allow TTL-enabled peripherals (e.g. perfusion pumps) to be triggered independently of an imaging protocol (software dependent). The analogue in/out control enables complex illumination protocols to be implemented. For example, altering the LED intensity during time lapse experiments or through Z-stacks.

## Filter Slide Holders



The pE-4000 can accept 4 x standard 25mm excitation filter holders (one per channel) internally, which enables the user to restrict the bandwidth of the chosen LED and maintain total control over the Light Source. This will allow discrete imaging parameters to be chosen without the time-lag associated with traditional filter wheels.

## Interchangeable Fiber or Liquid Light Guide Module



The pE-4000 light output can be configured with liquid light guide or fiber output. These interface modules are interchangeable by the end user. This means the pE-4000 is indeed the "true" Universal Light Source.

## To Order

pE-4000-EB25D	Rear-mounted Expansion Box, fits to a 25-pin D-type connection
pE-4000-EFH-4	Excitation filter holder for pE-4000 (4 off)
pE-4000-F-MODULE	Interchangeable Fiber Module
pE-4000-L-MODULE	Interchangeable Liquid Light Guide Module

**Warranty:** System = 12 months, LEDs = 36 months

## Dimensions

pE-Expansion Box:	151mm(w) x 29mm(d) x 95mm(h) – Weight 0.34kg
Filter Silde Holder (x1):	28mm(w) x 37mm(d) x 6mm(h) – Weight 0.032kg
Interchangeable Fiber Module:	36mm(w) x 48mm(d) x 36mm(h) – Weight 0.068kg
Interchangeable Liquid Light Guide Module:	36mm(w) x 56mm(d) x 36mm(h) – Weight 0.075kg

## Environment & Safety

LED products are more sustainable and energy efficient than conventional illuminators. CoolLED's products have the following benefits:

- Mercury-free
- Energy efficient: 80% less power
- Long lifetime (typically 25,000 operating hours)
- No bulb replacements
- Reduced risk of eye damage
- Quiet operation
- No special disposal regulations



For more information on how CoolLED products can help you, contact us now:

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