

VILBER

Smart Imaging

IN VIVO OPTICAL IMAGING SYSTEM
 Pre-clinical system dedicated to small animals
 Bioluminescence & Fluorescence
 Model: NEWTON 7.0
 Brand: Vilber
 Origin: France



Product Features and Technical Specifications	Details
Optics: <ul style="list-style-type: none"> • Scientific grade CCD camera • Grade 0 • 2200x2200 native camera resolution 1" • 10 megapixels image resolution • - 90°C Cooling Thermoelectrically via 4 Peltier • Fixed Motorized Lens f/0.7 • Max Field of view: 20x20cm • Macro Mode: 4x4cm min FOV • Unique HSR Technology • Dynamic Range: 4.8 OD • 16-bit – 65 536 grey levels • USB-3 interface 	<ul style="list-style-type: none"> > Highly sensitive camera designed for in vivo optical imaging > Zero defects in the image (no dead pixels) > The 1inch sensor allows more light to be captured > Generate higher resolution image for better pattern recognition > Deep cooling to deliver ultra-low noise and signal to background > Widest lens aperture to collect maximum light > Image up to 5 animals simultaneously > Macro Mode for detailed images of ex-vivo organs or body part > Reduces significantly the Signal to Noise Ratio to the lowest floor > Ultimate linearity for reliable quantification > Provides maximum data for quantitative imaging > Faster communication for a faster image acquisition
Fluorescence imaging 400-900nm Spectra Capsules <ul style="list-style-type: none"> • 8 Excitation channels possible simultaneously • 9 Narrow Band-Pass filters 	<ul style="list-style-type: none"> > From visible to NIR/IR for wide range of applications > Pulsed LED/laser Class II powerful exciters with filtered optics > 440nm/480nm/540nm/580nm/640nm/680nm/740nm/780nm > 535nm/565nm/595nm/655nm/695nm/710nm/750nm/820nm/850nm
Hardware Smart Darkroom technology: <ul style="list-style-type: none"> • Software control of the lighting • White light LED panels • Motorized Platform x,y,z • Motorized filter wheel 10 positions 	<ul style="list-style-type: none"> > Large door aperture with full access to the imaging platform > Automatic adjustment of the lighting > Useful for photographic images and illumination when door is open > Software controlled platform for easier subject positioning > Broad choice of filters for wide applications range
Animal Management <ul style="list-style-type: none"> • +37°C Heated Mouse Bed • EquaFlow animal breather Biosthesis – anesthetic instrument <ul style="list-style-type: none"> • TEC3 Vaporizer • Digital Flowmeter • Dual Delivery system • Waste gas scavenging system • Induction Boxes • Sterile imaging chamber with Hepa Filters 	<ul style="list-style-type: none"> > 1, 3 or 5 animals capacity > Maintains animals warm during image acquisition > Maintains animals asleep during image acquisition <ul style="list-style-type: none"> > Low gas consumption instrument for anesthesia > Precisely mixes oxygen and isoflurane agents > Digital display clearly readable even from distance > Delivers gas both to induction chamber and to the animal breather > Remove the waste of anesthetic gas for safer experiments > Different sizes available: 1, 3 or 5 small animals > Designed for the anesthesia and imaging of immunocompromised animals, sealed with hepa filters to protect from outside pathogens.
Software <ul style="list-style-type: none"> • License-Free • Image acquisition • Image editing • Image analysis • Live Preview Mode • Apps Studio • Sequence imaging 	<ul style="list-style-type: none"> > Unlimited users > Several acquisition modes available: Automatic, Manual, Serial > Overlay, add text, crop, rotate, enhance image visualization > Quantify signal data > Preview subjects in live > contains 40+ pre-loaded automatic protocols for best ease of use > images of a same animal at different times are grouped together
Applications <ul style="list-style-type: none"> • in vivo/in vitro Bioluminescence imaging • in vivo/in vitro Fluorescence imaging • ex-vivo bio/fluorescence imaging 	<ul style="list-style-type: none"> > Detection in the femtogram level > Detection in the picogram level > Visualization of ex-vivo organs with the Macro mode