

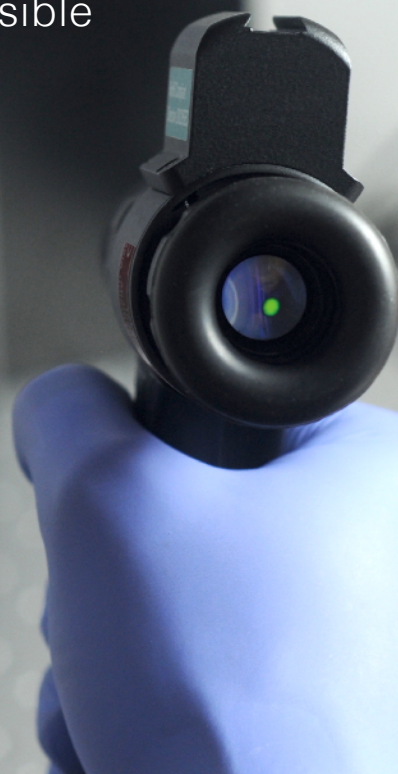
# SM-3R series

3R 1700  
3R 2000

Converts 350-2000nm  
radiation to visible

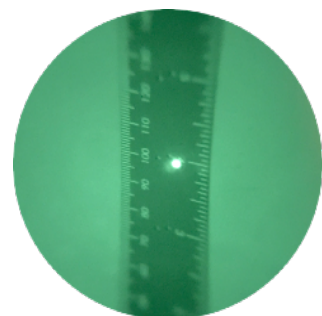
## Applications:

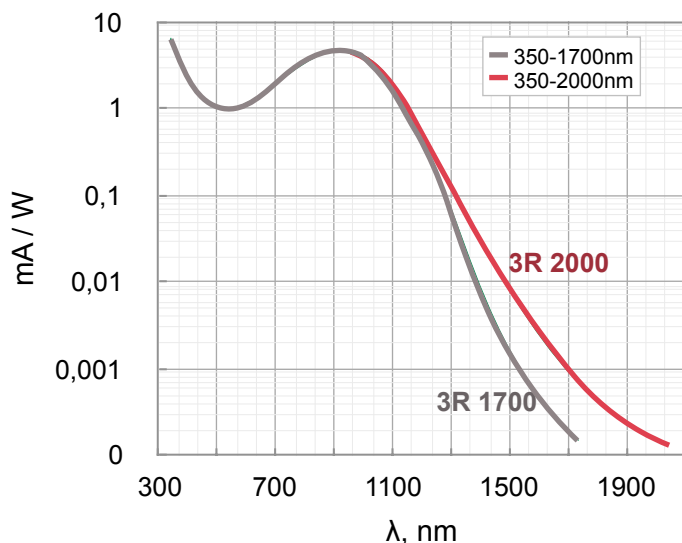
- Location and alignment of Nd:YAG, Yb:YAG, Yb:KGW, Ti:Sapphire and other IR lasers
- Identification of stray IR reflections
- Observation of GaAs laser diodes, IR LED's, dye and other IR-sources
- Forensic analysis on inks, pigments



## Main features:

- Wide spectral region 350 – 2000 nm
- Compact design
- High contrast
- Excellent image quality
- Hand-held / post mounted
- Works with C-mount lenses (with adapter)
- Battery (100 hours continuous working)\*\*
- Pulsed and CW light detection without synchronisation
- Connects to PC via video adapter
- Interfaces to CCTV cameras



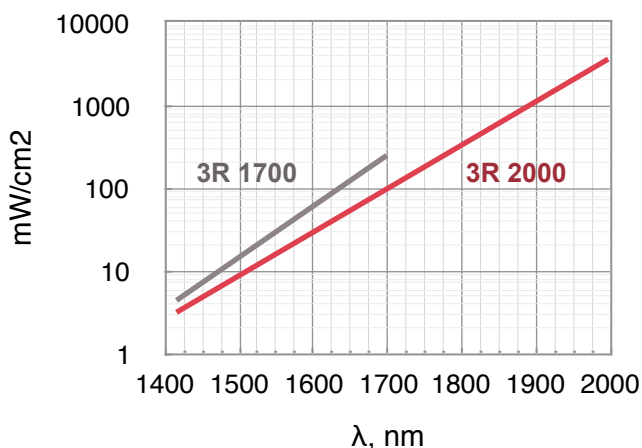


### How does it work?

Infrared viewer focus emitted or reflected light from a chosen subject into the image tube where electron image is generated. When powered (with battery or power supply) the 16-18 kV voltage is generated required to accelerate the electron image into the output phosphor screen. The fluorescent green light output (550 nm) is observed via an adjustable eyepiece lens.

### Power density

Approximate minimum of power densities required to view an infrared laser beam from a distance of one meter:



### Accessories available

- Iris diaphragm (for F1.4/26mm)
- Neutral density filter to lens 1X (3-5%@1064nm)
- Neutral density filter to lens 2X (3-5%@1064nm)
- Microscope adapter
- Facemask for hands free operation
- IR illuminator 940nm, 800nm

### Technical parameters

Version	SM-3R 1 (1.8X)	SM-3R 2 (3.4X)
Spectral sensitivity	SM-3R 1700 (350-1700nm)	SM-3R 2000 (350-2000nm)
Resolution (centre)	50 Lp/mm	50 Lp/mm
Field of view	25°	12°
Magnification	1.8X	3.4X
Objective lens	F1.4/26mm	F1.8/50mm
Adjustable iris	Available	Included
Focus	0.15m (0.05m)* to inf	0.25m (0.15m)* to inf
Working distance of lens	12.5 (+/-0.2) mm	12.5 (+/-0.2) mm
Battery type	2xLR44 or CR1/3N	
Non-uniformity of screen	<20%	
Non-uniformity of response	<15%	
Distortion of image	<18%	
Battery life (continuous)	10 or 100* hours	
Weight	0.25kg	0.3kg
Dimensions	130x65x43 mm	135x65x52 mm
Temperature range	-10°C... 40°C	
Tripod or handle connection	R"1/4"	
** with AAA batteries adapter		
* with distance ring		
SM3R-1700-1	SM3R-1700-2	
SM3R-2000-1	SM3R-2000-2	

- Video adapter VA-1
- C-mount Camera adapter
- Lens 2X (F1.8/50mm)
- Lens 1X F(1.4/26mm)
- Distance ring
- C-mount ring for any CCD lenses
- Adapter to AAA type batteries