

VISualize - bringing lasers to light

PRODUCT DATA SHEET

Multi-purpose Laser alignment head

Introduction

VISualize is an essential aid to the alignment, location and visualization of a wide range of visible through to NIR lasers.

As a general safety tool it is ideal for inspection of visible laser sources such as argon ion, HeNe, and laser diodes when laser safety goggles are being worn.

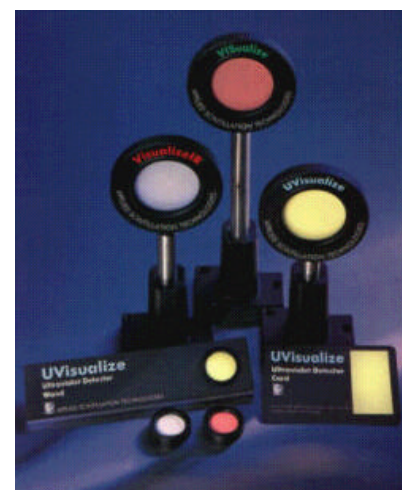
Features

- Gives orange/red emission.
- Active in visible bands including HeNe, HeCd, doubled Nd:YAG
- Active in popular laser diode, Nd:YAG and communications wavelength bands.
- Detects IR at powers as low as **1 nW/cm²**
- **Free** from hazardous reflections.
- A low cost alternative to beam profilers.

Product Styles:

The VISualize product comes in 3 formats:

- **Laminated "credit card" style** - budget format suitable for low power lamp and laser use
- **25 mm disc and clip-on wand** - specifically designed for laser engineers and optics experimentalists where frequent component positioning is required
- **Optical bench mounted head** - rugged, 40 mm active area, free standing 13.7 mm mounting post and post holder allowing centre adjustments from 90 - 235 mm. Ideally suited for laser alignment component positioning and beam profiling – complete with alignment target



Product Style Information:

Credit Card Style

Dimensions 86 mm x 54 mm
Active area ~4.5 cm²

Disc + Wand

Disc OD 25 mm
optical mount compatible
Active area ~3 cm²
Wand ~130 mm x 35 mm

Optical Bench Mounted Head

Head OD 70 mm
Depth 8 mm
Post dia. 12.6 mm

Active area ~12.6 cm²

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Performance Specifications

Stimulation Range: (see graph)
 Band 1: <400 nm to >640 nm
 Band 2: <800 nm to >1700 nm

Typical Applications
 Band 1: Ar⁺, HeNe, HeCd, Nd:YAG etc
 Band 2: NIR LEDs, LDs, Nd:YAG etc
 1550 nm telecommunications

Emission Colour: (see graph)
 Orange/red centred @ 655 nm
 Broad band emission <575 nm to >750 nm

Persistence (stimulation removed)
 IR stimulation < 0.5secs
 Visible stimulation 0.5 – 3 secs
 (Ambient lighting dependent)

Minimum Stimulation for Visible Emission:
 Continuous:
 <1 nW/cm² @ 450 nm
 <25 μW/cm² @ 950 nm
 (measured under darkened conditions)

Nd:YAG
 2 kW/cm² @ 1064 nm
 (7 ns pulse @ 10 Hz, low ambient light)

Maximum Stimulation:
 Single pulse: (Card format only)
 130 MW/cm² @ 337 nm, 4 ns
 (Disk + head formats only)
 850 MW/cm² @ 337nm, 4 ns
 (All formats)
 60 MW/cm² @ 1064 nm, 7 ns
 Continuous: (All formats)
 100 W/cm² @ 512 nm

