

# Hawkeye Laser Detector

## Features

- Compatible with the Global Premier, Acculase and Gated Cameo and our range of non-modulated lasers
- High level of immunity to ambient light
- High acceptance angle 160 deg
- Good signal to noise > 70dB
- Independent outputs for a.c. & d.c. components
- Wide bandwidth
- Excellent signal integrity
- Calibrated d.c. output (average power meter)
- Low power 5 Vdc operation
- 50 outputs to drive coaxial cables
- Screwthread for easy mounting

## Applications

- Condition monitoring including fog and smoke, particle detection, and densitometry.
- Event Monitoring beam break including edge sensing, counting, telemetry, safety barriers, interlocks.
- Detectors for Lock in Amplifiers.
- Transmissive Telemetry



The series of Hawkeye detectors are designed as a companion to the Global Laser Premier, Acculase, and Gated Cameo, as well as lasers from our non-modulated range.

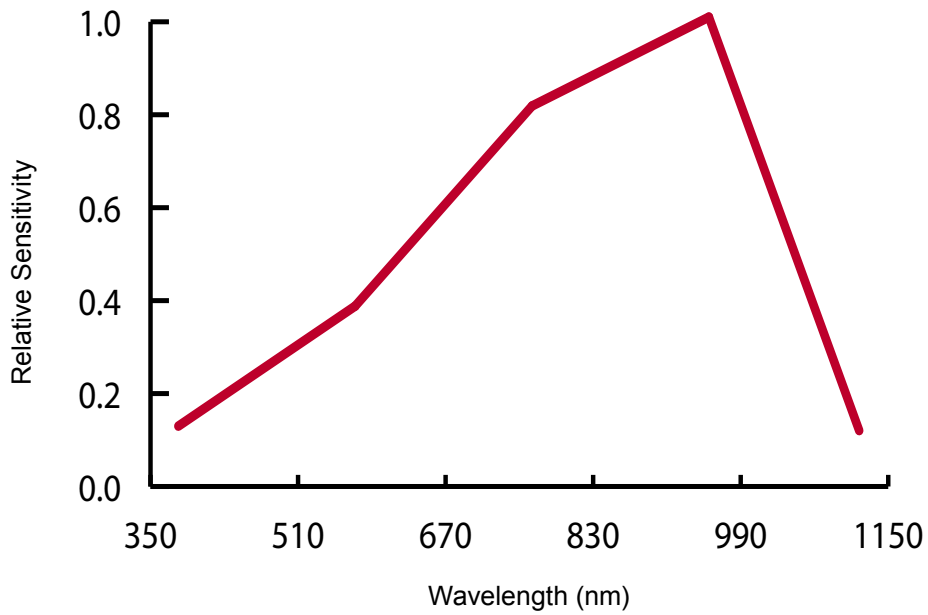
The modular design of the Hawkeye Detector incorporates a novel amplification system, which ensures excellent performance particularly in high ambient light conditions. Therefore, the Hawkeye is ideal not only for conventional indoor applications, but in addition for a wide variety of outdoor applications.

The integrated optics produce a wide acceptance angle which further increases this detector's extensive capabilities.



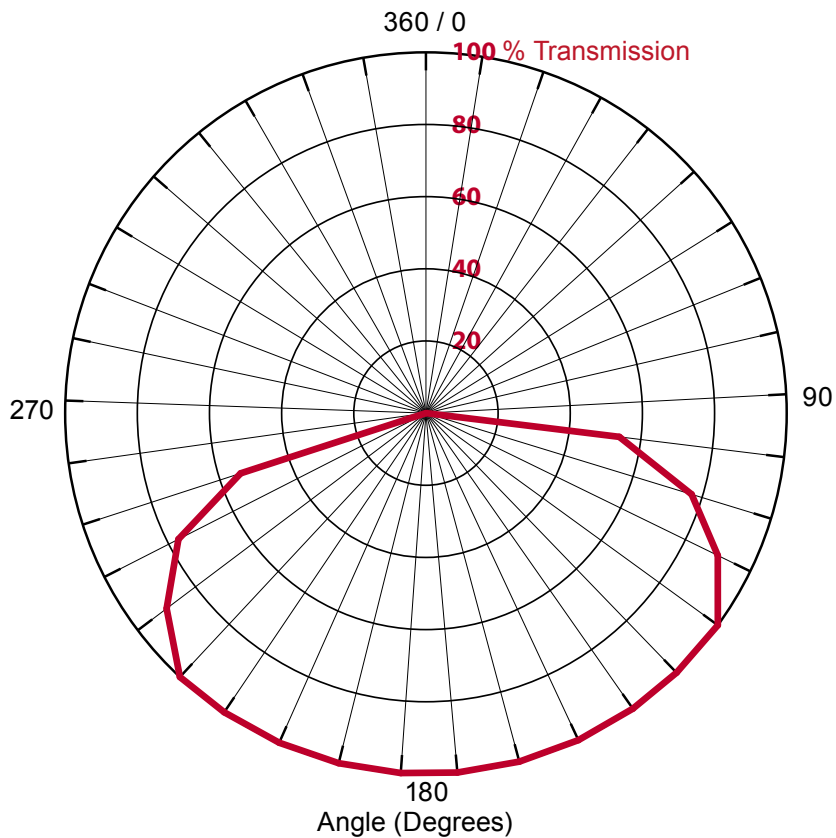
## RELATIVE SENSITIVITY VS WAVELENGTH

The profiles below show the sensitivity of the Hawkeye detector with different wavelengths.



## INPUT ACCEPTANCE ANGLE

The profiles below show the input acceptance angle of the Hawkeye detector



## OPERATING SPECIFICATIONS

	1520-01	1520-02	1520-03	Units	
A.C Output Sensitivity (650nm)	1	10	1	V/mW	See note 1
D.C Output Sensitivity (650nm)		1		V/mW	See note 2
A.C output frequency response	750	>100	750	kHz	See note 3
D.C output frequency response	1	1	10	kHz	See note 3
Relative ambient light rejection	20	10	20	dB	See note 4
Linearity		5		%	
A.C Signal to noise ratio		>60		dB	See Note 5
D.C Signal to noise ratio		>60		dB	See Note 6
Input acceptance angle		160		degrees	

### Notes:

Note 1 a.c. output is d.c. coupled, non-inverting and sits at mid rail.

Note 2 d.c output is measured relative to 0V (ground).

Note 3  $f_{reject}$  is the frequency at which the d.c. and a.c. outputs are -3dB.

Note 4 Measured using two 650nm lasers not exceeding the total light immunity.

Note 5 For 1mW peak to peak input signal

Note 6 For 1mW input signal

## MODEL MATRIX

1520-01	Normal version
1520-02	High gain version
1520-03	High frequency version

## MECHANICAL SPECIFICATIONS

Weight	50 grams
Dimensions	15 mm dia x 51 mm
Housing	Black anodized aluminium
Isolated Body	Yes
Input & Output Leads	4, Red (+ve), Black (0V), Yellow (ac out), Blue (dc out)
Lead length	230mm

## ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	+5°C to +35°C
Storage temp	-10°C to +85°C
Operating Humidity (%RH)	90
MTTF at 25°C	5,000 hours

## ELECTRICAL SPECIFICATIONS

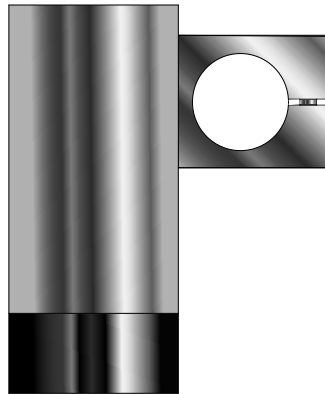
Supply voltage	+5 Vdc to +10 Vdc
Supply Current	1 mA
Connector type	4 pin JST
Reverse - Polarity protection	Yes

\* = Varies with model

Specifications are typical at 25°C unless otherwise stated

## MOUNTING CLAMPS

The optional heavy duty mounting clamp allows the Hawkeye to be securely fixed at any required direction or angle. The base plate has a series of threaded holes which allows the clamp to be fixed directly onto a machine or workbench.



## USER SAFETY

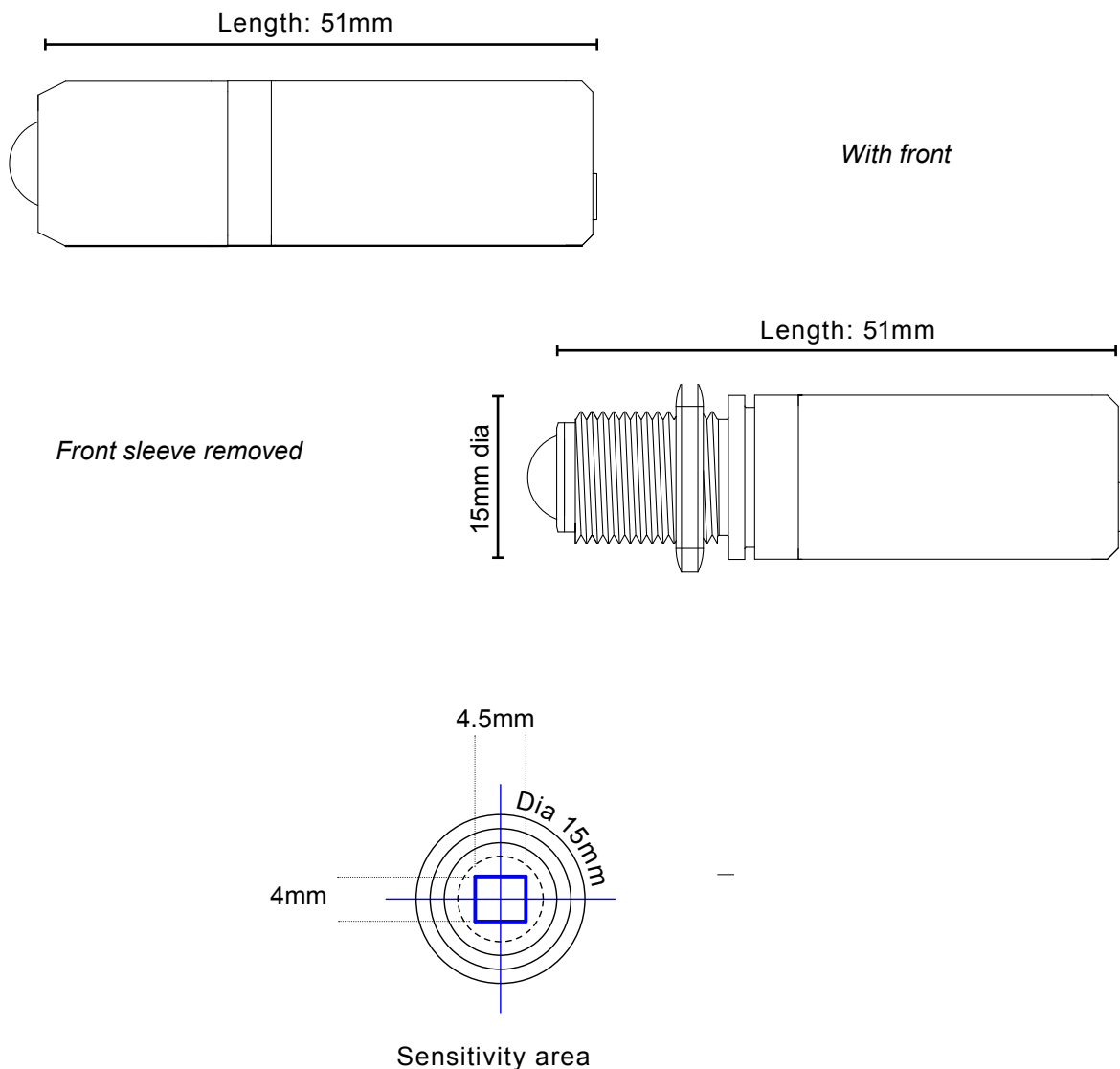
When using the Hawkeye detector with lasers users should follow all laser safety standards.

## QUALITY & WARRANTY

The Hawkeye detector is supplied with a 12 month parts and labour warranty. Our manufacturing operations are certified to ISO9001.



## DIMENSIONS



*Please note: Global Laser reserve the right to change descriptions and specifications without notice*



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For further information about the Hawkeye you can contact your local distributor or you can contact Global Laser in the UK.

Your Local Distributor Is: