

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



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.

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

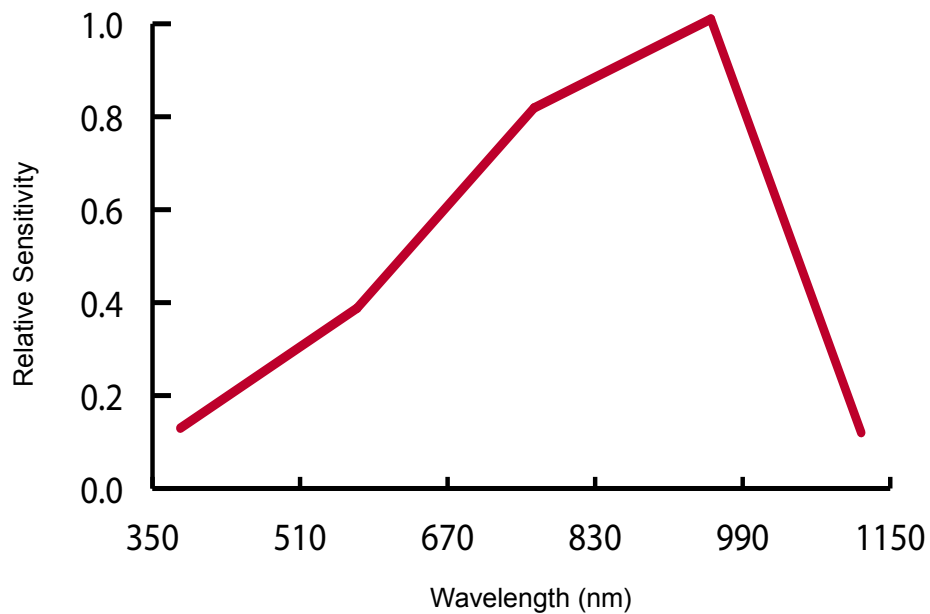
The modular design of the Hawkeye Detector incorporates a novel amplification system, which ensures excellent performance particularly in high ambient light conditions. Therefore, the Hawkeye is ideal not only for conventional indoor applications, but in addition for a wide variety of outdoor applications.

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



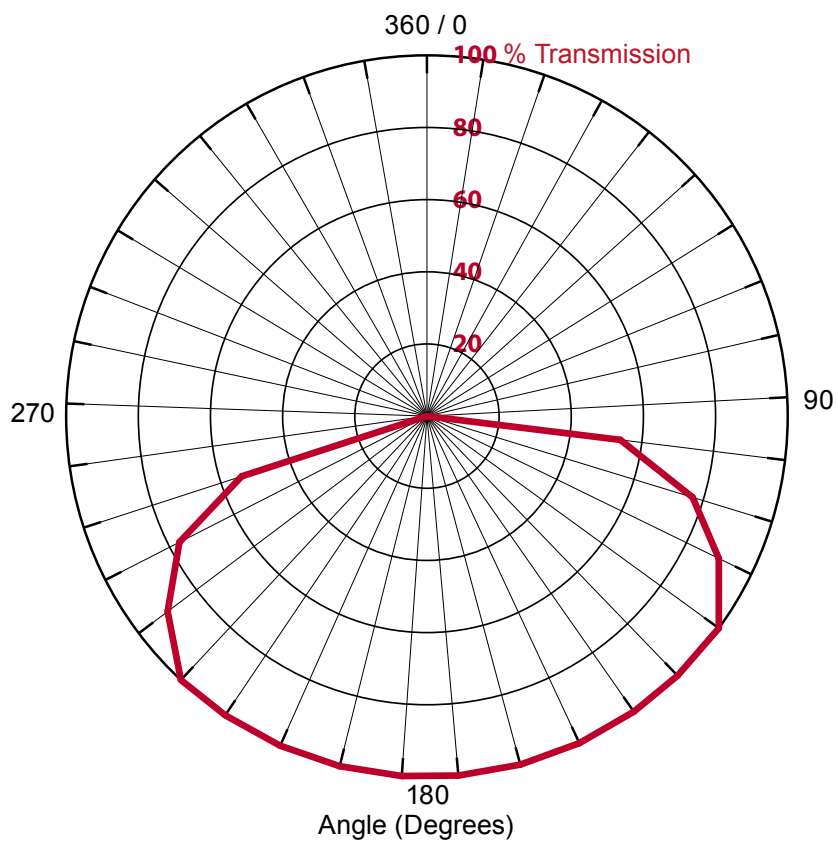
RELATIVE SENSITIVITY VS WAVELENGTH

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

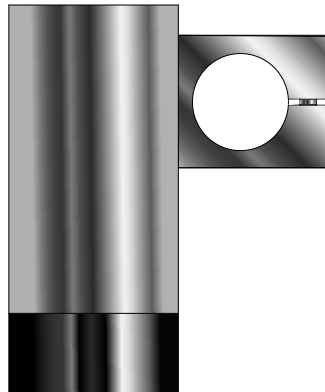
Supply voltage	+5 Vdc to +10 Vdc
Supply Current	1 mA
Connector type	4 pin JST
Reverse - Polarity protection	Yes

* = 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

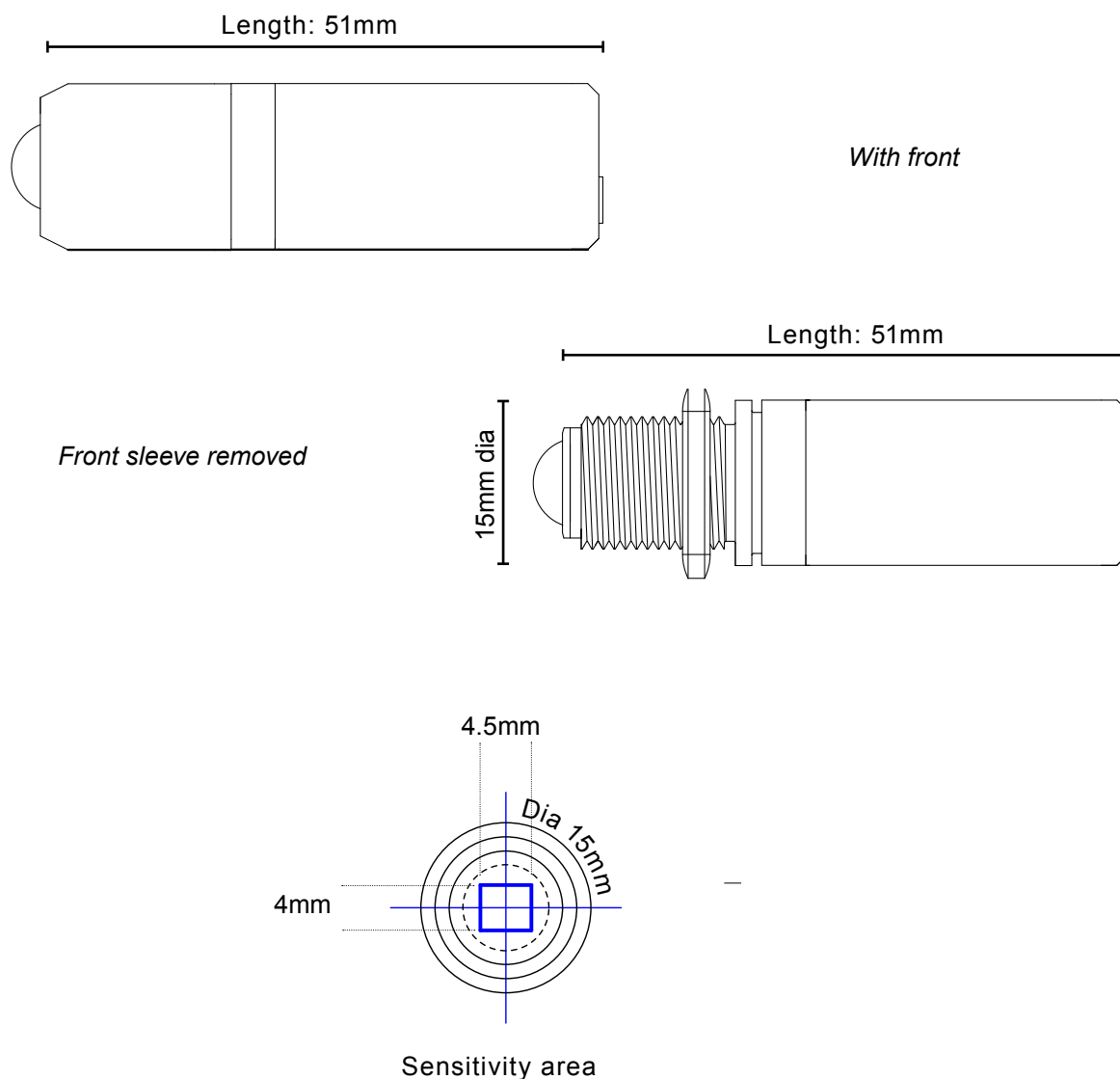
When using the Hawkeye detector with lasers users should follow all laser safety standards.

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: