



LONG RANGE, HIGH SENSITIVITY, UNCOOLED THERMAL CAMERAS



Delivering innovative solutions for long range observation and situational awareness, Opgal's Arbel™ line of thermal cameras is available in a variety of configurations that offer single, double, or triple field of view lenses while retaining line of sight on the target. The combat-proven Arbel™ cameras have a high sensitivity uncooled microbolometer available in 640 X 480 format with recognition ranges up to 4.5 km. These high sensitive thermal cameras allow superior image quality and performance, making them suitable for military, paramilitary and surveillance applications. They enable longer detection ranges of targets in total darkness, and through dust and smoke.

KEY BENEFITS

KEY FEATURES

- Improved DRI performance
- Variety of lens configurations
- On demand auto-focus
- Rugged design – water, sand and dust sealed
- Supports VMD software
- Remote controlled X-Y pixel shift of the image
- Can be used standalone and/or as an OEM thermal camera
- Auto BPR real time algorithm makes it suitable for military, paramilitary and surveillance

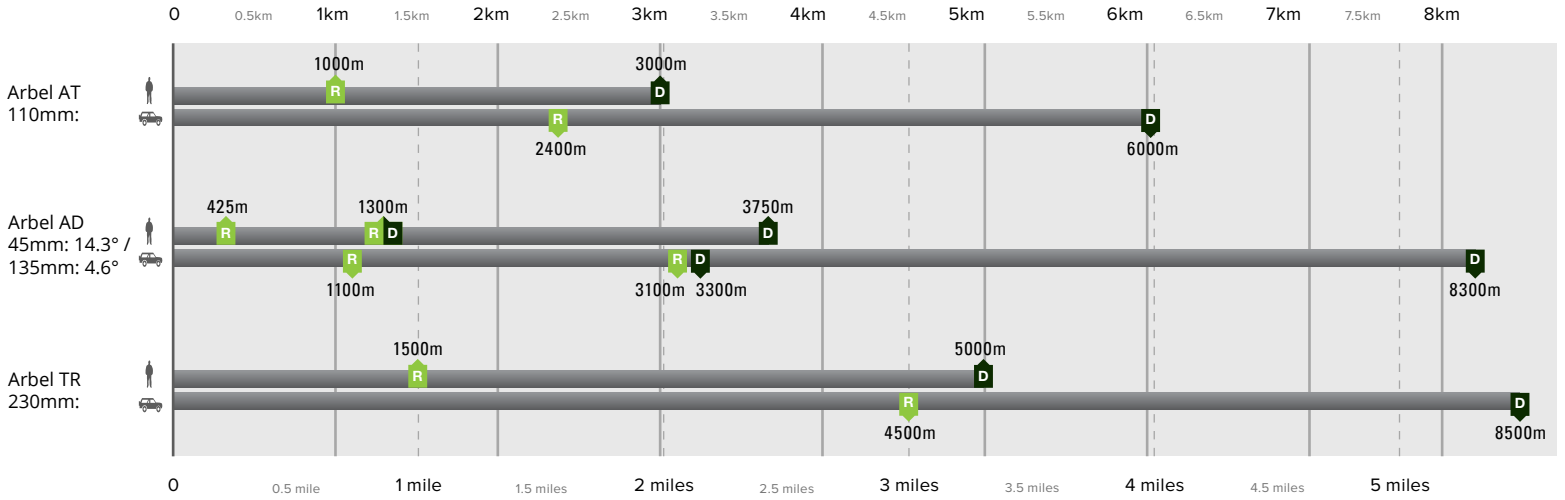
APPLICATIONS

- Ground and naval applications
- Weapon sights and weapon stations
- Military and paramilitary surveillance awareness
- Replacing/upgrading old cooled systems



APPLICATIONS

Opgal's Arbel™ thermal cameras are ruggedized to withstand the harshest weather and environmental conditions, including rain, direct sunlight, high humidity, dust, vibration and shocks, all qualified according to MIL-STD. They are used in a variety of security and defense applications such as observation and weapon stations.



= Human Subject
Size 1.8m x 0.6m



= Vehicle Subject
Size 2.3m x 2.3m

Recognition

6 lines on subject

* Performance dependent on atmospheric conditions

Detection

2 lines on subject

Features	Arbel AT	Arbel AD	Arbel TR
Spectral Range	7.5-14 μm		
Number of Pixels	640 x 480		
Analog Video Output	CCIR or RS-170 (PAL or NTSC)		
Digital Video Output	Camera link		
Field of View	5.6°H x 4.3°V	Wide: 14.3°H x 10.8°V Narrow: 4.6°H x 4.3°V	Wide: 22°H x 16.5°V Medium: 5.5°H x 4.1°V Narrow: 2.7°H x 2°V
Lens Focal Length	110mm	45/135mm	30/115/230mm
Number of FOV's	Athermalized Single FOV	2 FOV's	3 FOV's
Frame Rate	25/30 Hz or 50/60 Hz		
Pixel Size	17 μm		
Remote Control	RS-232 or RS-422		
Control Operation	Video polarity, NUC, zoom		
Operating Voltage	12 VDC		
Power Consumption	~ 3.5 W		
NETD	< 35mK (sensor only)		
Operating Temperature	-40°C to +60°C		
Environmental Qualification	Fully certified per MIL-STD 810, SRS Gunfire shocks, certified IP 65, 67 (optional)		
EMI Qualification	MIL-STD 461 Certified		
Weight	< 2.4 kg	< 3.4 kg	< 6.4 kg