



System Applications

Electro-Optical Sight (EO Sight) for Remote Controlled Weapon Station (RCWS)



Opgal's® Hurricane is a cost-effective electro-optical sight for medium and long-range observation and weapon stations.

The system consists of a high-sensitivity thermal imaging channel, HD day channel, LRF and optional Fiber Optic Gyro (FOG), wide field-of-view thermal channel, and more.



The Hurricane comes with an optional portable control and display unit facilitating operation and reducing time to market. The Hurricane is fully ruggedized to enable mounting on a remote control weapon station (RCWS). The Hurricane is MIL-STD. Deployed and used on land vehicles and aboard ships, it is 810 certified and designed to withstand harsh weather and environmental conditions.



- ITAR Free
- Off-the-shelf supply
- Long-term support

Hurricane Specifications



Key Benefits

- Cost-effective EO sight
- Rugged and sealed design
- Modular and flexible
- Bore-sighted
- Remote controlled using RS422
- Qualified by:
 - MIL-STD-810
 - MIL-STD-461
 - MIL-STD-1275

Applications

- Ground, ground-mobile and naval applications
- Remote weapon stations
- Intelligence, surveillance, reconnaissance and situational awareness

Hurricane Technical Specifications

THERMAL IMAGER	DESCRIPTION / PERFORMANCE
Detector properties: Type / Resolution / Pixel Pitch	High-sensitivity: LWIR, uncooled / 640x480 / 17µm
Feed display	Continuous zoom experience
Optical FOV	4.6° x 3.5° ; 14.3° x 10.7°
Additional features	Infinity focus, DRC image enhancement, polarity, auto contrast control, AF on-demand , region-of-Interest, NUC on temperature change, user defined reticles, OSD, language support
DAY CAMERA	
Type	1080p / x20 zoom (FHD)
Sensitivity	0.5 lx
HFOV	2.3° to 63.7° (X30 optical)
Additional features	Full HD 60fps, AF, defog, noise reduction, wide-dynamic range, high sensitivity mode, auto ICR, color enhancement, negative art, B&W, OSD
LRF	
Range accuracy	±2.5m
Eye safe	IEC60825 Class 1M
Wavelength	1550 nm
Lasing rate	Measurement rate up to 12 measurements per minute.
Beam divergence	< 0.6 x 0.8 mRad
Measurement accuracy	1m (1σ); Subject 300m or closer / 5m (1σ); Subject beyond 300m
Additional properties	Multiple object capability
SYSTEM	
Export status	ITAR / EAR free
Control	3 separate RS422 Option: unified communication adapted to customer's protocol
Video	Independent channels for thermal imager and day camera
Weight	< 7 Kg
Power supply	24 VDC nominal, compliant with MIL-STD-1275D
Orientation	Factory-setting mounting orientation: horizontally or vertically
Functional shocks	MIL-STD-810F / 516.5 / I: 3x ±40g, 11ms - all directions (total of 18).

Note: Distances are calculated based on geometrical values and do not take into account atmospheric conditions

Thermal Imager Range Performance

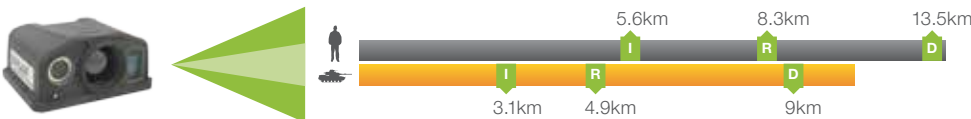
Thermal Channel



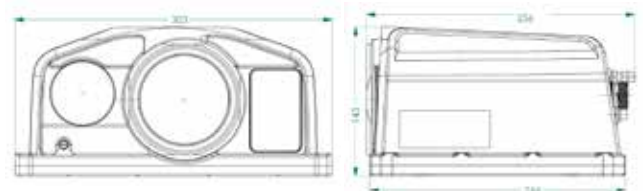
LEGEND

= Human	= Detection
= Vehicle	= Recognition
	= Identification

Day Channel



LRF Channel



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