



# HEIDRUN EO/IR

## TECHNICAL SPECIFICATIONS

The Heidrun EO/IR is a battle proven, fixed wing, mini drone for low-altitude video surveillance and reconnaissance missions. It is designed for operations in complex environments and with high mobility, rapid and easy launch & recovery in mind.

Reaching up to 30 km of live video feed, it is ideal for collecting immediate situational awareness from any mission critical area without exposing the operator to any danger.

<b>DIMENSIONS</b>	<b>L x W x D</b>	<b>WEIGHT</b>
UAV Take Off Weight	1070 mm x 1650 mm x 170 mm	2.3 kg
UAV Battery	140 mm x 70 mm x 40 mm	0.6 kg
Complete UAS in transport case	1122 mm x 328 mm x 308 mm	28 kg (incl. 2x batteries)
Compact Ground Station	299 mm x 192 mm x 20 mm	0.75 kg

## PERFORMANCE

Max flight time	Up to 90 min	
Compact Ground Station battery time	Up to 330 min standard	
Max wind tolerance	12 m/s	23 kts
Cruise speed (air speed)	16 m/s	31 kts
Service ceiling	3,500 m ASL	11,500 ft ASL
Maximum landing altitude	3,000 m ASL	9,800 ft ASL
Maximum operating temp.	45 C°	
Minimum operating temp.	-20 C°	
Charger power supply	100-240 V AC	
Heidrun battery voltage	14.8 V	
Heidrun battery capacity	10,000 mAh	



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Average landing area needed	7.5 – 12.5m radius	Weather dependent
Launch method	Hand launched	
Recovery method	Deep Stall landing	
Fail Safes	Loss of Telemetry Link Low Battery Loss of GPS	

## TELEMETRY & VIDEO

Transceiver	128 bit AES encryption	
Antenna type	Vertical polarized and Omni-directional	Multiple-In and Multiple-out (MIMO)
Radio frequency	2350: 2.304 - 2.390 GHz 2450: 2.402 - 2.482 GHz 2550: 2.500 – 2.570 GHz	UAV is delivered with one of the three possible configurations
Transmission range	Short Range set up: 10-12 km (Line of Sight)	Long Range Setup: 30 km (Line of Sight) with Long Range Antenna Tracker under ideal conditions and is environment dependent
Transmission power	Up to 1,0 Watt	
Video bit rate	720p	

## GROUND SYSTEM OPERATIONS

Rugged tablet (11.6", Win10 Pro, 128 GB)	299 mm x 192 mm x 20 mm	1.7 kg
XL Battery pack	86 Wh, 7,800 mAh	12 hours
Temperature	Operating: -10° C to +55° C Storage: -30° C to +70° C	



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## PAYLOAD

### DUAL LENS GIMBAL

Payload platform	Button extractable gimbal mount
Gimbal	Separately controllable 2-axis stabilized gimbal
Visible camera (EO)	Visible 400-700 nm Resolution: 1280x720 (720p) Zoom: x6.6 + x2 digital (x13.2 total) Continuous zoom HFOV: 38.8° WFOV – 5.9° - 2.9° DFOV
Thermal camera (IR)	LWIR uncooled (8-12µm) Resolution: 640 x 480 Zoom: x4 digital HFOV: 32° WFOV - 8° DFOV
Extracted range of rotation	+/- 180° azimuth (0 = UAV body heading)
Retracted range of rotation	Fixed 0° azimuth (0 = UAV body heading)  -45° to -70° pitch (0 = UAV water line, + is up)

