INFIRAY OUTDOOR
HYBRID SERIES
MULTIFUNCTION THERMAL OPTIC

First introduced as the powerful combination of a thermal weapon sight and a thermal clip-on unit, the HYBRID line-up continues to evolve with specialized models, top-performing sensors, and an advanced feature set designed for technical shooters. The combination of the HYBRID's low-distortion orthoscopic eyepiece and a 1.03-inch large-format 2560×1920 display provides comfortable viewing, a sharp image, and massive eye relief. The HYBRID also unlocks advanced features such as compatibility with a 1,000 yard laser rangefinder, a custom ballistic reticle generator, wireless remote, and an onboard ballistic solver. This year, the HYBRID family expands with the addition of the 75 mm model (HYH75W), optimized for long-range shooters and the 50 mm 90 Hz model (HYL50W), optimized for smooth motion and fast moving targets.

InfiRay Outdoor

RICO HYBRID SERIES	HYL50W	HYH50W	HYH75W
SENSOR			
Resolution	384×288	640×512	
Pixel Size	17 µm	12 µm	
Frame Rate	50hz / 90hz	50hz	
Sensor Sensitivity	≤25 mK		
Image Processing	MATRIX III		
Core	InfiRay Micro II 384	InfiRay Micro II 640	
OPTICS			
Objective Lens	50 mm f/1.0		75 mm f/1.0
Magnification	3×		4×
Digital Zoom	8×		
Field of View	7.5° × 5.6°	8.8° × 6.6°	5.9° × 4.4°
Detection Range	2000 Yards	2400 Yards	3600 Yards
Display Type	1.03-inch Large-format AMOLED		
Display Resolution	2560×1920		
Color Palettes	White Hot, Black Hot, Red Hot, Iron Hot, Rainbow, Outline*		
Reticle Types	9 (7 Static, 1 DIY, 1 BDC)		
Reticle Colors	Black, White, Red, Green, Blue		
Mounting System	Picatinny MIL-STD 1913 Rail		
P.I.P	Yes		
Rangefinder	ILR-1000-2 LRF (Optional/Not Included)		
Eye Relief	60 mm		
Diopter Range	-4 to +2		
ELECTRONICS			
Onboard Recording	Video, Recoil-activated Video, and Image		
Onboard Storage	64 GB		
Wireless Connectivity	Video and Image via App		
Data/Power Connector	USB-C		
Power Supply	USB-C External, IBP-1H Li-ion Battery Pack (6+ Hours Each)		
Start Up Time	<10 Seconds, Instant from Standby		
PHYSICAL			
Size	11.02" × 3.03" × 2.99"		12.20" × 4.13" × 3.58"
Weight	30.01 Oz	40.5 Oz	45.08 Oz
ENVIRONMENTAL/WARRANTY			
Warranty	5 Years		
Housing Material	Magnesium	Aluminum	Magnesium
Ingress Protection	IP67		
Operation Temperature	-4°F~122°F		
Max. Recoil	1000 G/s² (300 Win./7mm Mag)		

*Outline color palette not currently available on HYL50W

Multiple Lens Options
Ultra-fast high-performance germanium 50 mm or 75 mm f/1.0 objective lens.

IBP-1H Battery Pack
Field-swappable lithium battery offers 6+ hours of run time (varies by model and settings).

2560×1920 AMOLED Display
Large-format display and magnified eyepiece create unmatched eye relief.

HYL50W

Recoil-activated Video
30-second clips automatically record before and after a shot.

90 Hz / 50 Hz Modes
HYL50W is the industry's first 90 Hz thermal sight. It can also run in a 50 Hz mode for increased battery life.

LRF Compatible
Plug-and-play compatibility with ILR-1000-2 laser rangefinding module.

Advanced Recoil-mitigating Picatinny STD-1913 Mount
Isolates recoil for improved accuracy and long-term durability.

All models in the HYBRID series can be used as a clip-on thermal in front of a day scope (with magnification up to 10x). Additionally, all HYBRID models are compatible with the ILR-1000-2 Laser Rangefinder, which provides real-time ranging data on the display and can even dial a firing solution o based on user-suppied drop values.

To visit the product webpage, scan the QR code or go to irayusa.com/hybrid

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