

G5 Long Life Cooler

2.5× the Life. Built for 24/7 Operation.

RUN LONGER. SERVICE LESS.

Every cooled thermal camera has one component that determines how long it stays in the field: the cryocooler. The G5 Long Life Cooler option extends that life from **20,000 hours to 50,000 hours**, turning roughly two years of continuous operation into more than five, so the camera stays on mission instead of on a bench.

Standard Cooler
~2.3 years continuous

20,000 hr

Long Life Cooler
~5.7 years continuous

50,000 hr 2.5× the operating life

WHAT YOU GET

- **Years of uninterrupted coverage:** 5+ years of 24/7 duty before scheduled cooler service
- **Lower cost of ownership:** fewer service visits, fewer spares, fewer cameras pulled from service
- **Same performance:** identical image quality, cooldown time, and power draw as the standard cooler

IDEAL FOR

- Counter-UAS and autonomous detection systems that never power down
- Border, perimeter, and critical-infrastructure sites
- Coastal and maritime persistent surveillance
- Remote and unmanned sites where every service visit means a crew, a truck, and downtime

50,000 hr	2.5×	5+ yrs	24/7
COOLER OPERATING LIFE	THE LIFE OF A STANDARD COOLER	CONTINUOUS 24/7 OPERATION	DUTY CYCLE RATED

TESTED. FIELDIED. PROVEN.

Third-Party Verified

Life ratings are backed by independent reliability testing at the cooler manufacturer: years of continuous thermal cycling from -40 °C to +71 °C with zero performance degradation.

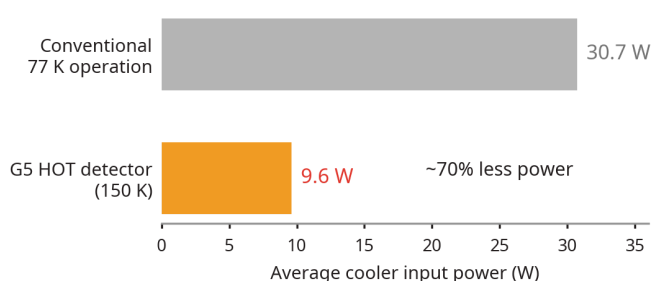
Two Decades Fieldied

Built on a compressor architecture fieldied by the thousands since 1997, qualified to US military airborne and ground tactical standards.

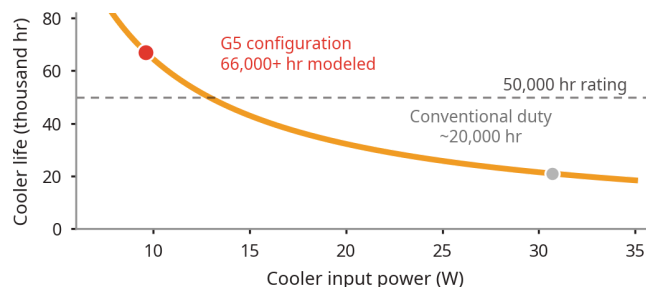
Configuration Is Everything

Cooler life scales with input power and cooldown cycling. Published ratings for this cooler in conventional cryogenic systems reflect roughly 3× the workload; the G5 configuration runs it at a fraction of that power, extending modeled life well past 50,000 hours.

LESS WORK FOR THE COOLER. MORE YEARS IN THE FIELD.



The 150 K HOT detector cuts average cooler input power by roughly 70% versus conventional 77 K operation.



Cooler life scales inversely with input power; the G5 operating point models past 66,000 hours, well above the 50,000-hour rating.

How to order: choose LL in the cooler field of any G5 ordering block, e.g. **70Z900xHD-LLW-TC**. Available across the entire G5 MWIR camera family.

Not sure which cooler fits your mission? Talk to your G5 representative.

Operating life figures are specified cooler MTTF in the G5 high-operating-temperature configuration; ratings for the same cooler under higher-power, frequently-cycled conditions will be lower. Continuous-operation years assume 8,760 hr/yr, 24/7 duty. Actual service intervals vary with duty cycle and ambient conditions. Specifications subject to change without notice.