

Arne

Ultimate, very low cost cryocooler for HOT IR imaging

- A linear split Stirling cryocooler with very low cost, size, weight, and power consumption (C+SWAP) has numerous benefits, resulting from multi-year practical experience combined with recent theoretical and practical breakthroughs in cryogenics.
- The Arne cryocooler is ideal for high-temperature infrared imaging.
- Both the compressor and expander feature integrated mounting surfaces for rugged support and effective heat dissipation.

Main Features

- High driving frequency.
- Helium-free low leakage working fluid.
- Single-piston compressor with inverted 'moving magnet' actuator relying on axially polarized moving and static magnets, edgewise driving coil, and built-in magnet springs (patent pending).
- Vibration-free resonant rodless pneumatic expander with a very lightweight (only 0.6g) displacer, nylon microfiber regenerative heat exchanger, and magnet spring (patent pending).
- Cold finger materials: customizable base (SST 304L), tube (L605), and customizable cold plug (Invar).
- Optional low-weight tuned dynamic absorber.

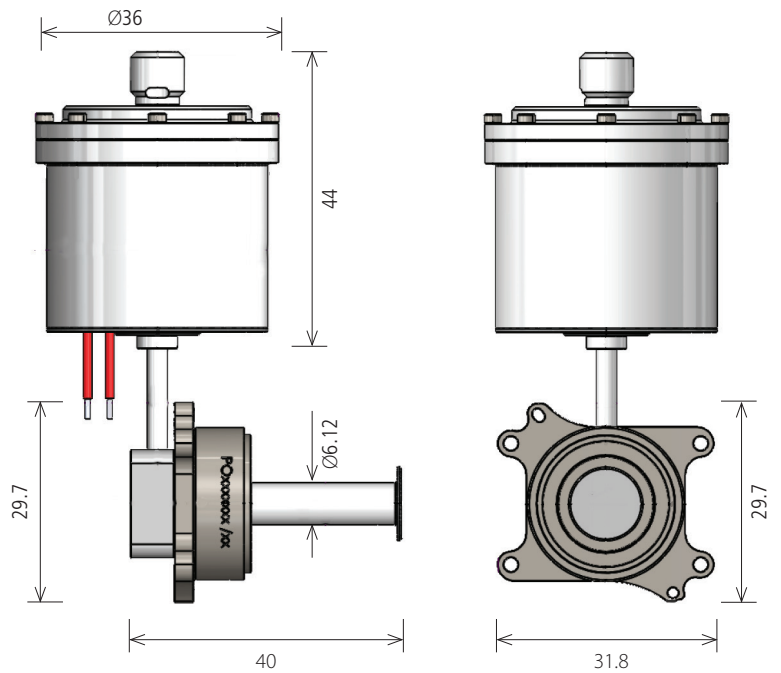


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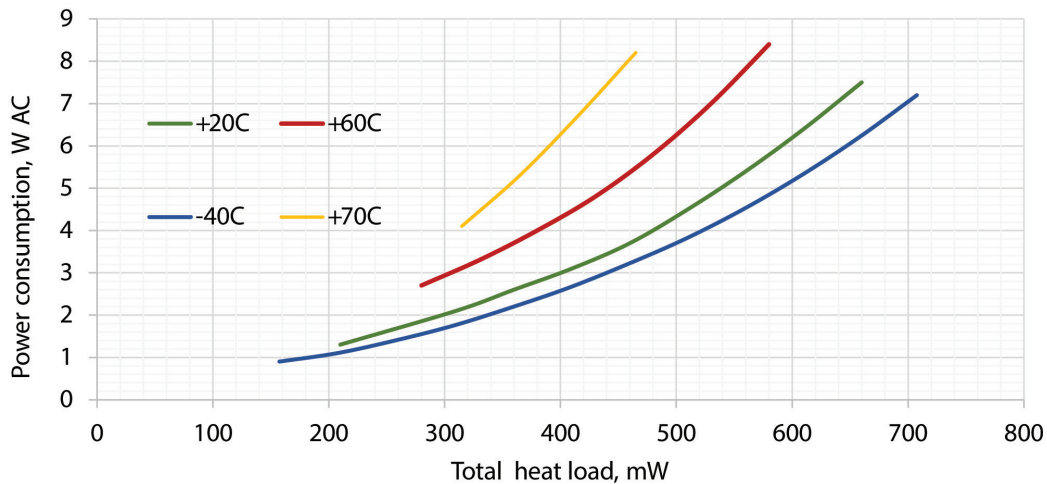
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Main Specifications

Maximum cooling capacity @ 150K (23 °C) (mW)	600
Power consumption in typical working point 180mW @150K (23°C) (W AC)	1.5
Environment temperature range (°C)	-40 to +71
Non operational environment temp. range (°C)	-55 to +85
Compressor size (mm)	L44; Ø32.8
Cold head length (mm)	40
Cold finger dimensions (mm)	Ø6; L28
Weight w/o cold finger (gr)	115
Optional tuned dynamic absorber (gr)	50
Cooldown time, 150J@ 50K (23°C) (min.)	2.5
MTTF baseline (goal) (hr)	45,000
Environmental qualifications	IEC 60068, MIL-STD 810
Standard warranty (hr / yr)	5,000 / 2



Performance at different reject temperatures



Gevasol Group

Gevasol develops and produces customized products in collaboration with its customers. The design process begins by listening to the customer and fully understanding their needs. Gevasol's skilled engineers and operational teams enable us to quickly turn an idea into a product, using transparent processes. Our customers rely on our responsiveness.

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