

Linear Drive Stirling Cooler

AIM

7052

Originally Designed by Raytheon

The 7052 Cryocooler combines outstanding cooldown performance with the advantages of high-volume production.

The 7052 split-Stirling linear drive cryocooler features an end-exit transfer tube and otherwise is quite similar to the center-exit 7050 cryocooler.

Designed for IR/EO systems, >3000 of these coolers have been produced in support of a missile program with projected production in the tens of thousands.

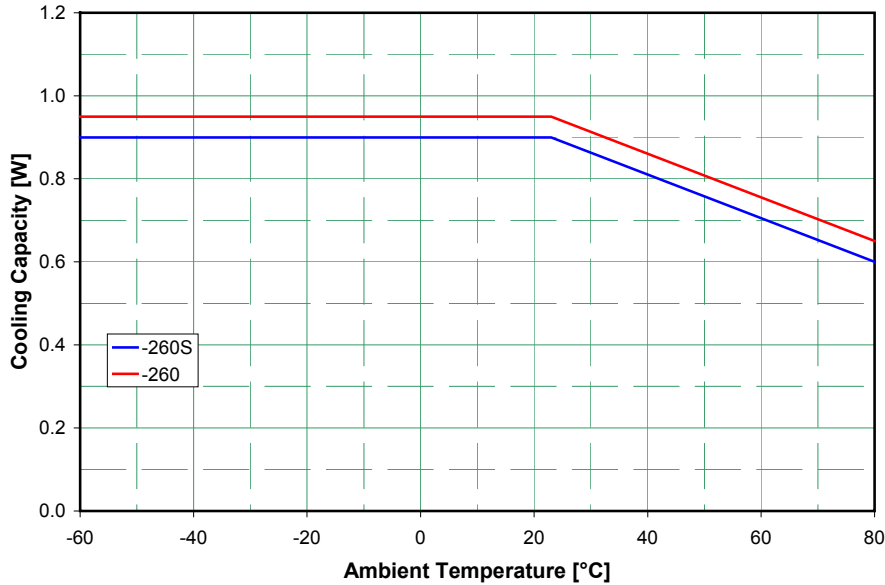
The 7052 compressor can be mated with any of three expander options with different coldfinger diameters to meet specific needs within a nominal cooling capacity of 0.75 to 1.5 watts at 77K in a 23°C environment.

- **Proven reliability (>5,000 hours MTTF)**
- **Cooling capacity up to 0.95W at 77K, 23°C ambient**
- **System compatibility: various infrared applications**
- **Coldfinger size options: 0.196- and 0.260-inch diameter**



Typical Performance Data (7052 @77K)

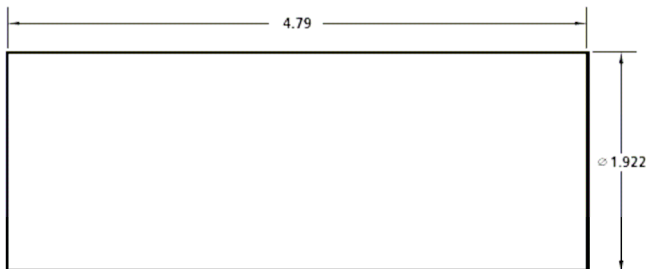
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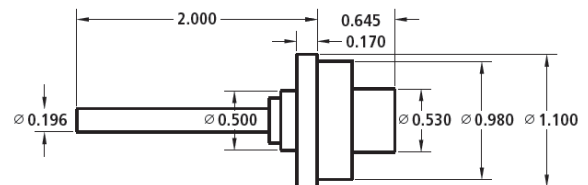
7052	-196	-260S	-260L
Supply voltage [VAC]	6-12		
Control electronics	ext.		
Compressor length [inch]	4.79		
Cooler weight [pounds]	2.9	3.0	3.1
Coldtip length [inch]	2.0		2.851
Coldtip outer diameter [inch]	0.196	0.260	
Ambient temperature range [°C]	-54...+71		
Reliability [h]	>5,000		

Applications

- Slip-on or IDA compatible design
- Performance tested to U.S. military specifications and environments
- Applications demanding high cryocooler reliability and reduction in maintenance costs



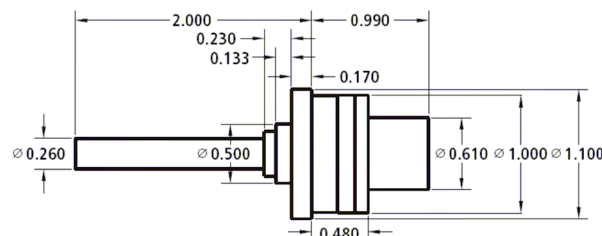
Dimensions 7052 compressor



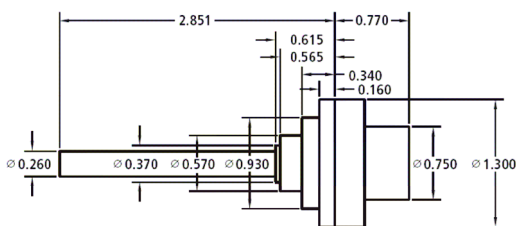
7052-196

3 coldfinger versions available:

The sleeve design allows free integration of the regenerator at customer site in all IDA dewar bores of same design. All versions suitable for titanium and Inconel® IDCA's



7052-260S



7052-260L

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