

FLEXURE BEARING STIRLING COOLER SF070

- **Flexure Bearing and Moving Magnet Technology**
- **High MTF (>30,000h)**
- **Compact and lightweight**
- **High cooling capacity of 0.6W (@ 80K; 23°C)**
- **Modular Cooler Concept**
- Several coldfinger options available

The AIM SF070 is a Stirling cryocooler based on Moving Magnet Technology and Flexure Bearing suspension on both ends of the driving mechanism. A computerized alignment process combined with an optimized material composition inside the helium vessel results in lifetimes exceeding 30,000h.

The cooler is designed for high performance IR-detectors. The SF070 is compact, lightweight and provides a cooling capacity of more than 0.4W @ 80K at 71°C ambient temperature.

The resulting performance margin allows detector temperatures down to 70K.

The SF070 can be operated with AIM's digital cooler electronics (μ DCE050, DCE100) or alternatively with customers' electronics.

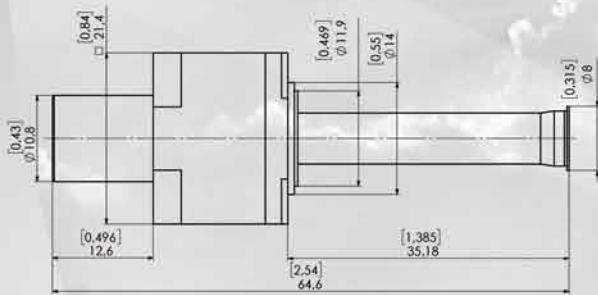
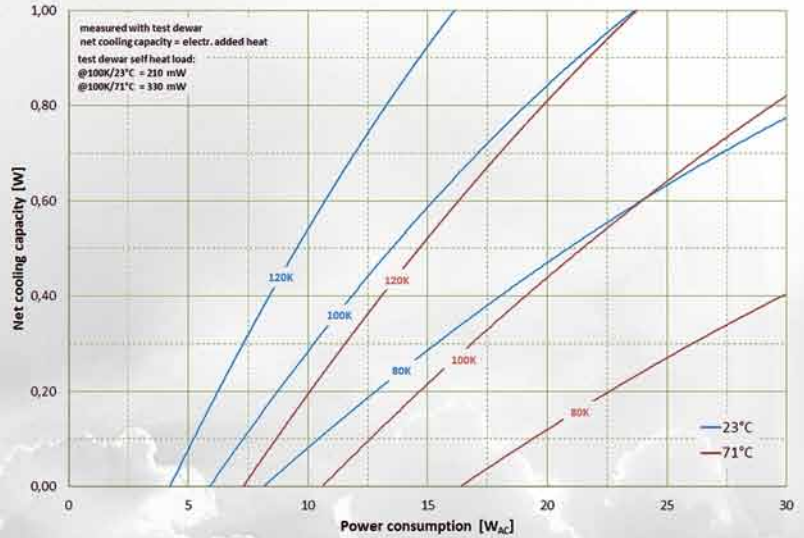


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Typical Performance Data
SF070 with 8mm coldfinger

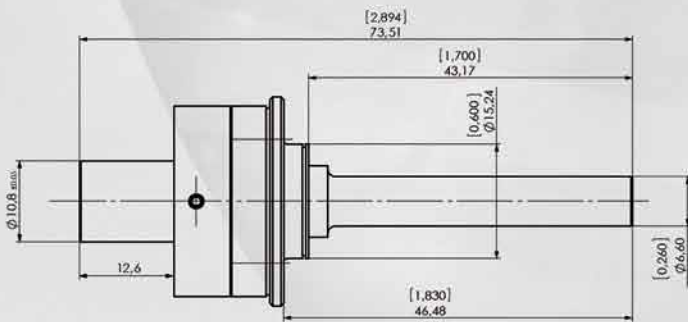
Applications

- High performance IDCAs
- IR-detectors operating at 70 - 140K
- Ambient temperature up to 80°C
- Applications requiring high cryocooler reliability and reduction in maintenance costs

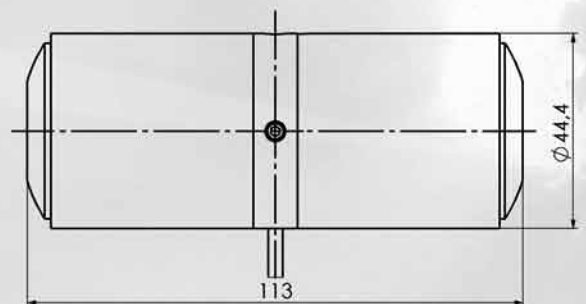


Dimensions 6mm Generic coldfinger long

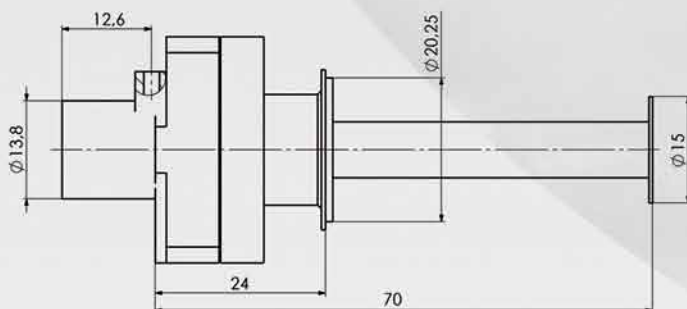
		SF070
Compressor diameter	[mm/in]	44 / 1.73
Compressor length	[mm/in]	113 / 4.45
Compressor weight	[g/lb]	850 / 1.87
Supply voltage	[V _{AC}]	5 - 15
Cooler Controller		μDCE050 / DCE100
Ambient temperature range	[°C]	-54 to +80
Suitable coldfinger / dewar diameter		6mm, 8mm, 9mm



Dimensions 6mm coldfinger



Dimensions SF070 compressor



Dimensions 8mm coldfinger

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