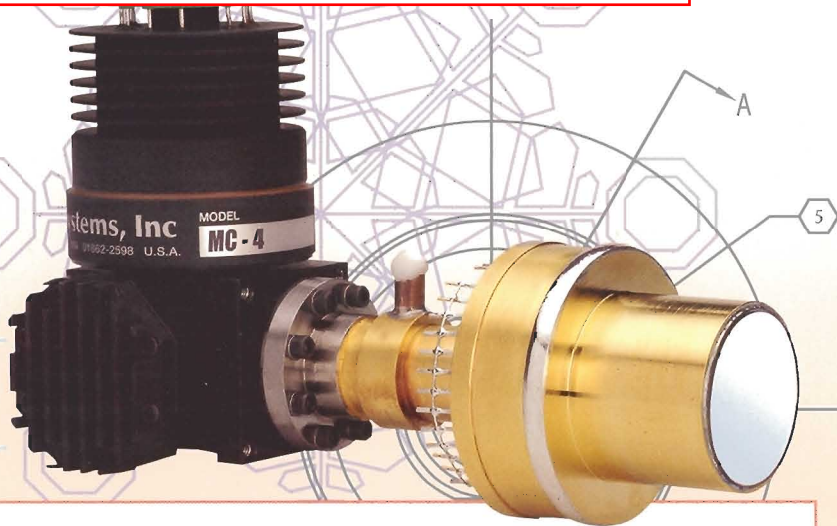


**MC4****MICROCOOLER™**

THE NEW STANDARD IN HIGH-PERFORMANCE MINIATURE CRYOGENIC COOLERS

**DISCONTINUED PRODUCT**

This product is out of production, and may have limited support depending on its age. Please contact us at 1-877-773-3547 if you have any questions.

**SPECIFICATIONS:**

Max. Gross Cooling Capacity:	525 mW
Steady-State Power Consumption:	<3.5 W <sup>1</sup>
Cool-Down Time (150 J):	4.5 minutes
Operating Temperature Range:	-40° C to 75° C
Weight:	300 grams
Mean Time to Failure:	8000 hours <sup>2</sup>

<sup>1</sup> Dewar heat load = 135 mW  
 Cold-Tip Temperature = 77 K  
 Ambient Temperature = 20° C

<sup>2</sup> Based on FLIR Systems' rolling life test plan

Unless otherwise noted, specifications are typical at a 77 K cold-tip temperature and 23° C crankcase temperature.

**FLIR Systems, Inc.**

Pioneers in infrared technology, FLIR Systems designs, manufactures and supports thermal imaging systems and subsystems for industrial, scientific, government and firefighting applications. With a 40-year history of infrared innovation, 30,000+ systems in use worldwide, and development centers and sales offices in over 60 countries, FLIR is the world leader in thermal imaging technology.

**APPLICATIONS:**

- Medium-power, medium-format imaging systems such as the Quantum Well Infrared Photoconductor (QWIP) 320 x 240 detector array
- High-temperature super-conducting (HTSC) devices and applications requiring small size, long life and high cooling capacity
- Cooled MOS technologies

**DESCRIPTION:**

FLIR Systems' MC4 miniature cryogenic cooling engine is designed specifically for small, lightweight, medium input power applications. Offering superior compressor capacity and thermodynamic performance, the MC4 delivers the cooling power necessary for operations requiring low cold-tip temperatures and high thermal heat loads.

MC4 is built around FLIR's field-proven MC3 model and is ideal for medium- to high-resolution infrared detector arrays that require rapid cool-down time and a cold-tip temperature of less than 70 K. MC4 is well suited to applications demanding a small, lightweight, maintenance-free system.

**FLIR Systems Boston, Inc.**

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 North Billerica, MA  
 Tel: 978.901.8421 or 8242  
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[www.flir.com](http://www.flir.com)

**DISCONTINUED PRODUCT**

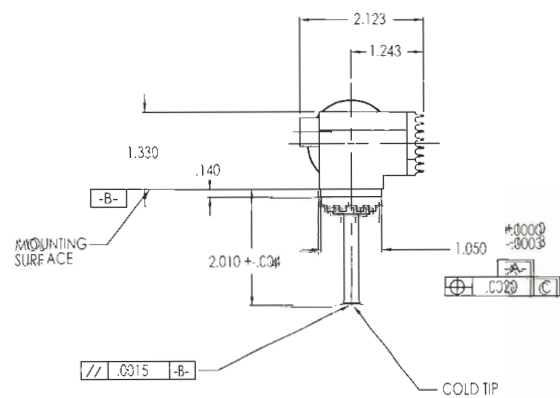
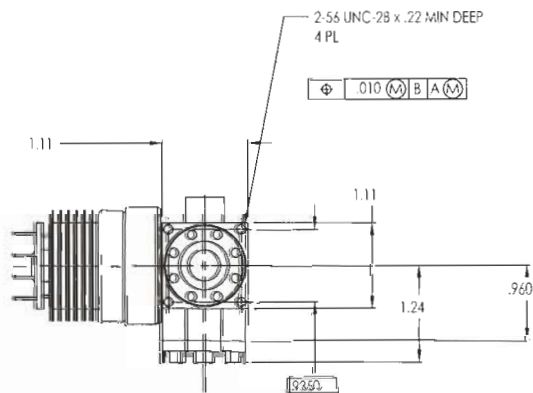
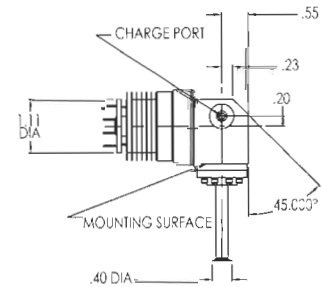
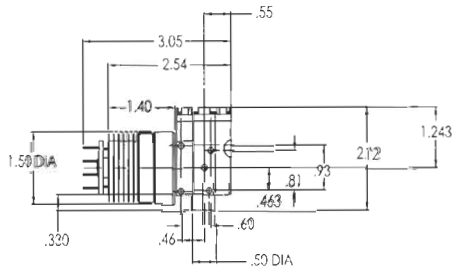
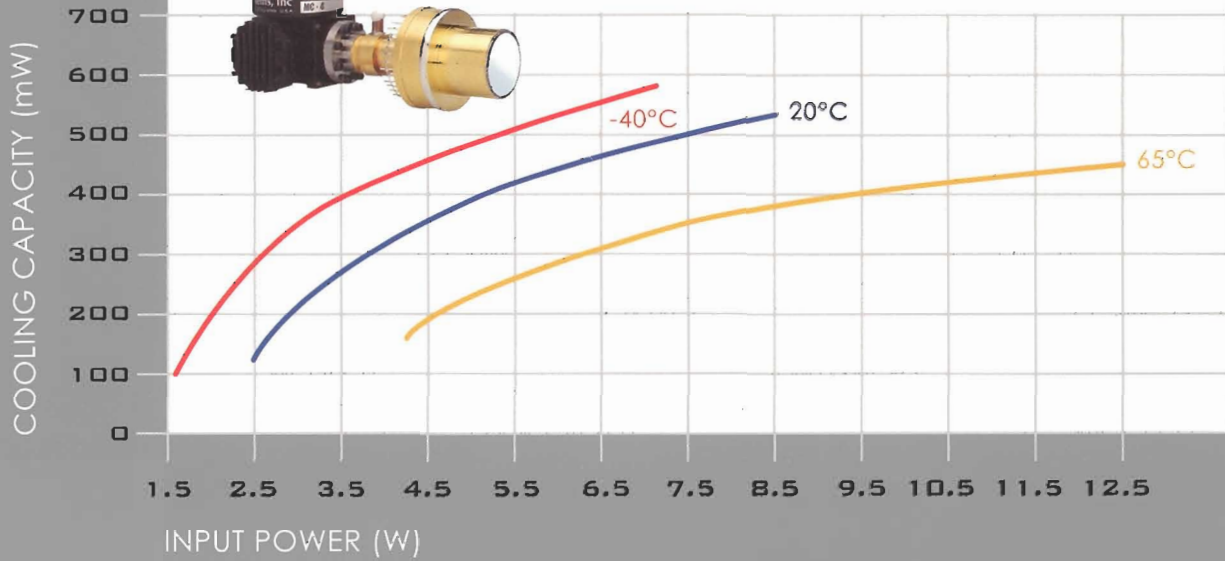
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# MC4 GROSS COOLING POWER VS INPUT POWER AND AMBIENT TEMPERATURE

## MC4



GROSS COOLING POWER at 20°C at 77K COLD TIP  
 GROSS COOLING POWER at 65°C at 77K COLD TIP  
 GROSS COOLING POWER at -40°C at 77K COLD TIP



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