

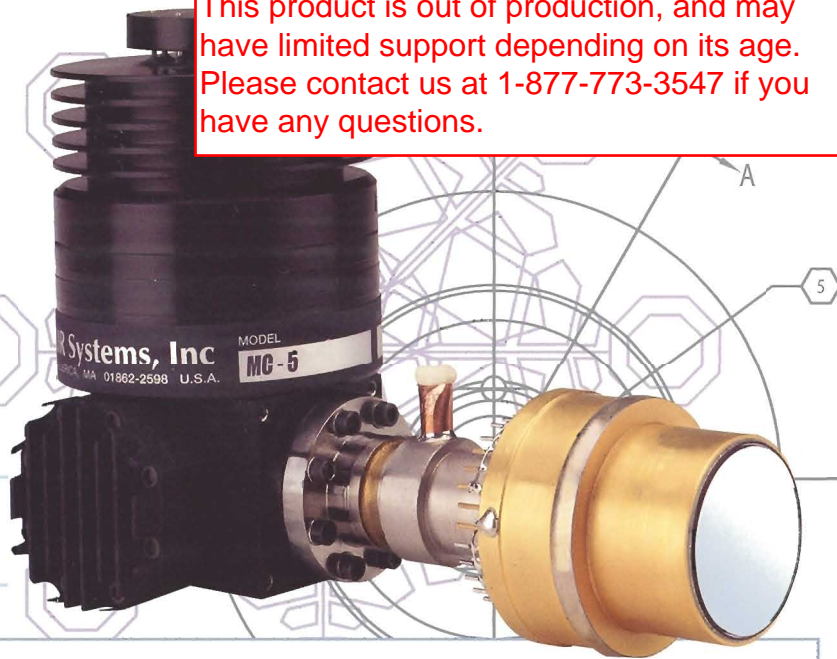
**MC5**

# 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.

**APPLICATIONS:**

- Medium-power, large-format (640 x 480) infrared imaging arrays cooled to temperatures as low as 55 K
- High-temperature super-conducting (HTSC) devices in maintenance-free, long-life systems
- Cooled MOS technologies

**DESCRIPTION:**

FLIR Systems' MC5 miniature cryogenic cooling engine is designed specifically for small, light- to medium-weight medium input power applications. Offering superior compressor capacity and thermodynamic performance, MC5 delivers the cooling power and fast cool-down necessary for operations requiring low cold-tip temperatures and high thermal heat loads.

MC5 is built around FLIR's field-proven MC3 model and is ideal for medium- to high-resolution infrared detector arrays that require a shorter cool-down time and a cold-tip temperature of less than 70 K.

**SPECIFICATIONS:**

Max. Gross Cooling Capacity:	650 mW
Steady-State Power Consumption:	<3.5 W <sup>1</sup>
Cool-Down Time (150 J):	3.5 minutes
Operating Temperature Range:	-40° C to 75° C
Weight:	450 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' 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.

**FLIR Systems Boston, Inc.**

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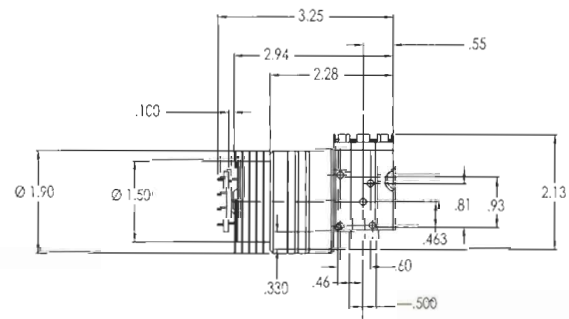
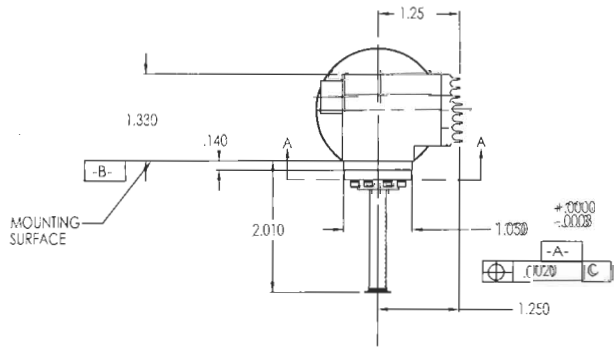
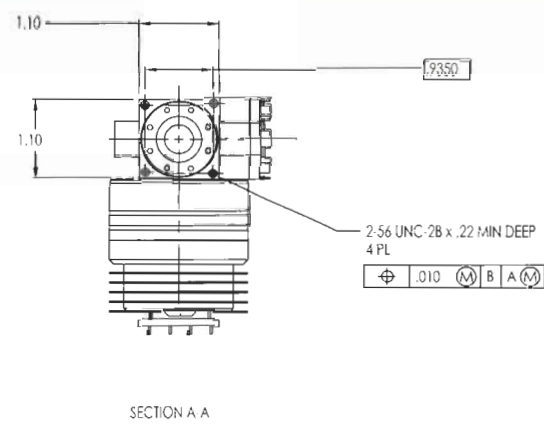
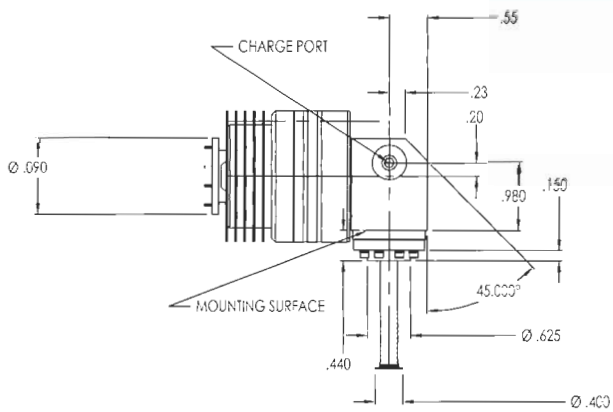
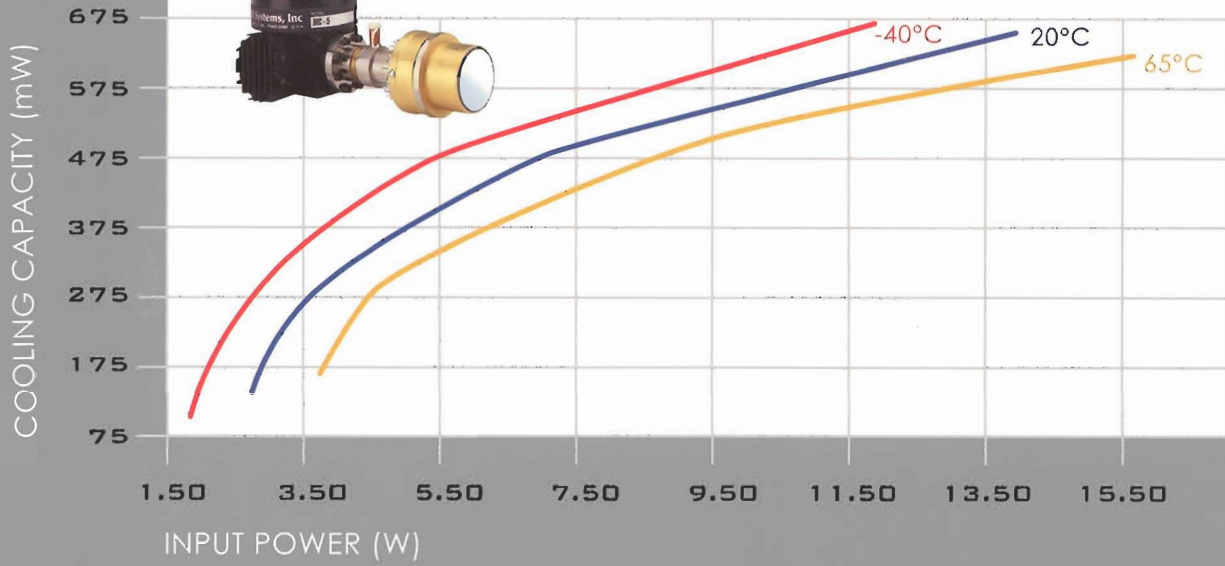


# MC5 GROSS COOLING POWER VS INPUT POWER AND AMBIENT TEMPERATURE

**MC5**



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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