



MMR Technologies, Inc.

FLOW METERS

INTRODUCTION

The pressure of gas that flows into a Joule-Thomson refrigerator is critical to both the performance and safe, long term operation of this cryogenic stage. These refrigerators work optimally at 1800 psi of pressure going into the system. Pressures higher than 1800 psi can result in damage to the refrigerator, and pressures below 1800 psi can result in poor performance or a reduced temperature range of operation.

Typically, a tank of gas is connected directly to the gas filter of the refrigeration system. Using the pressure gauge on the gas tank can give you a rough estimate of the pressure going into the system, but is not meant to be an accurate reading. If this gauge reads lower than the actual pressure - you can damage your refrigerator. If the gauge reads higher than the actual pressure, you may have a difficult time reaching the lower end of your desired temperature range.

A good quality flow meter can be attached to the tank of gas used to operate the system. There are a number of manufacturers that offer good quality gas pressure flow meters. Different flow meters have different characteristics and features available. Ultimately, you need to choose the one that works best to meet your needs.

FEATURES

It is recommended that a flow meter is used with your MMR Technologies' Joule-Thomson cryogenic refrigerator system. These are not available through MMR Technologies' but can be sourced through any laboratory equipment dealer.

It is recommended that any flow meter used with the MMR system have the following features:

- The ability to withstand high pressure gas of at least 2640 psi (or whatever the maximum tank pressure is that you use on your system).
- Have the ability to control or fine tune the pressure of gas going into the gas filter kit on your MMR system.

FURTHER QUESTIONS

If you have further questions, please do not hesitate to contact MMR Technologies, Inc.:

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