

## Janis Dilution Refrigerator Inquiry Configuration Questionnaire

Name :

University/Institute/Company :

Telephone number :

Fax number :

Email address :

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0). Is the system for STM or quantum information applications?

1). Do you want a “wet” dil-fridge or a cryogen-free one ?  “wet”

Cryogen-free

2). Expected base temperature : \_\_\_\_\_ mK

3). Cooling power at 100 mK : \_\_\_\_\_ micro-watt

4). Minimum sample space : Diameter \_\_\_\_\_ inches

Height \_\_\_\_\_ inches

5). Any wires needed for users’ experiments ? Yes  How many \_\_\_\_\_

No

(Janis supplies 0.005” manganin wires in twisted pairs for the user when needed)

6). Any coaxial cables needed for users’ experiments ? Yes

No

If yes, what type of coaxial cables : Miniature flexible  How many \_\_\_\_\_

Semi rigid  How many \_\_\_\_\_

(Janis uses SMA feedthrough for the coaxial cables)

(Note : No coax will touch the mixing chamber;

Semi-rigid coax will terminate just below the 1 K pot)

7). Do you need a dewar ? Yes

No

If yes, do you want a vapor cooled dewar or liquid nitrogen shielded dewar ?

Vapor cooled dewar

Nitrogen shielded dewar

If you have an existing dewar, please supply the drawing with dimensions.

8). Do you need a superconducting magnet ? Yes

No

If yes, please specify the following :

Central field at 4.2 K \_\_\_\_\_ tesla

Clear bore \_\_\_\_\_ inches

Lambda fridge needed : Yes

No

Configuration : Solenoid

Split

9). Do you need the magnet power supply ? Yes

No

10). Do you need the helium transfer line :? Yes

No

11). Do you need the following electronics ?

a). Model 340 temperature controller : Yes

No

b). Model 370 AC bridge/temperature controller : Yes

No

c). Multi-channel scanner for Yes

370 AC bridge/temperature controller : No

d). Model AVS-47 AC resistance bridge : Yes

No

**12). Do you need the 1 K pot pumping station ?** Yes

No

**13). Do you need “On-site installation” ?** Yes

No

**14). Please specify the following special features if needed :**

a). Special holes ----- tapped or through

b). Clear shot tubes ? How big ? How many ?

c). Manipulators ?

d). Other if any

**15). Do you have any ceiling height restrictions ?**

**16). Other information (they will be helpful to the designing and pricing)**

a). What is the heat load from the experiments ? \_\_\_\_\_ watt

b). Have you looked at Janis’ webpage (<http://www.janis.com/p-dr.html>) ?

c). What kind of experiments do you need this dilution refrigerator for ?

d). Is this inquiry a “real” purchase or for proposal ?