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## Two-stage Pulse Tube Cryocooler from Janis and SHI

RP-062B (0.5 W at 4.2 K) and RP-082B (1.0 W at 4.2 K)

Sumitomo Heavy Industries has expanded their product line yet again with the addition of a two-stage pulse tube cooler. With a base temperature of below 3.0 K, this new product extends the range of possible applications for Sumitomo closed-cycle refrigerators to include low-temperature, low-vibration applications. The pulse tube cooler has no internal moving parts, therefore it has inherently low vibration levels.

### Standard configuration

#### Characteristics:

- Refrigeration capacity: 0.5 W at 4.2 K (RP-

062B); 1.0 W at 4.2 K (RP-082B)

- Orientation: vertical only
- Push-button operation

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**JANIS**  
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### Two-stage Pulse Tube Cryocooler Specifications

	RP-062B	RP-082B
<b>Refrigeration cycle</b>	Pulse tube (2-stage)	Pulse tube (2-stage)
<b>Refrigeration capacity (vertical)</b>	1st stage: 30 W at 65 K	1st stage: 40 W at 45 K

<b>position)</b>	(50/60 Hz) 2nd stage: 0.5 W at 4.2 K (50/60 Hz)	(50/60 Hz) 2nd stage: 1.0 W at 4.2 K (50/60 Hz)
<b>Orientation</b>	Vertical only	Vertical only
<b>Lowest temperature</b>	<3.0 K	<3.0 K
<b>Vibration level</b>	±4 µm at 2nd stage flange	1st stage: ±7 µm; 2nd stage: ±9 µm
<b>Weight</b>	23.2 kg	26 kg
<b>Cold head dimensions (mm)</b> —approximate	336 W × 190 L × 604 H	190 W × 347 L × 581 H
<b>Cooldown time (to 4.2 K)</b>	<100/90 min (50/60 Hz)	<80 min (50/60 Hz)
<b>Maintenance</b>	Every 20,000 h	Every 20,000 h
<b>Compatible compressor unit model</b>	F-50	F-70
<b>Flexline length</b>	20 m*	20 m*

**Flexline weight**    7.5 kg per line    7.5 kg per line

\*Buffer tanks + 6 m lines may optionally be substituted for the 20 m long lines. 6 m lines weigh 5 kg per line.

*Specifications subject to change without notice.*

Download the Sumitomo's [SRP-062B Pulse Tube Datasheet](#)

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