Closed Cycle Cryostat

Full featured optical cryostat with rugged stainless skirt welded to the cryocooler and polished stainless vacuum shroud for durability. High Vacuum construction for cleaner sample environment..

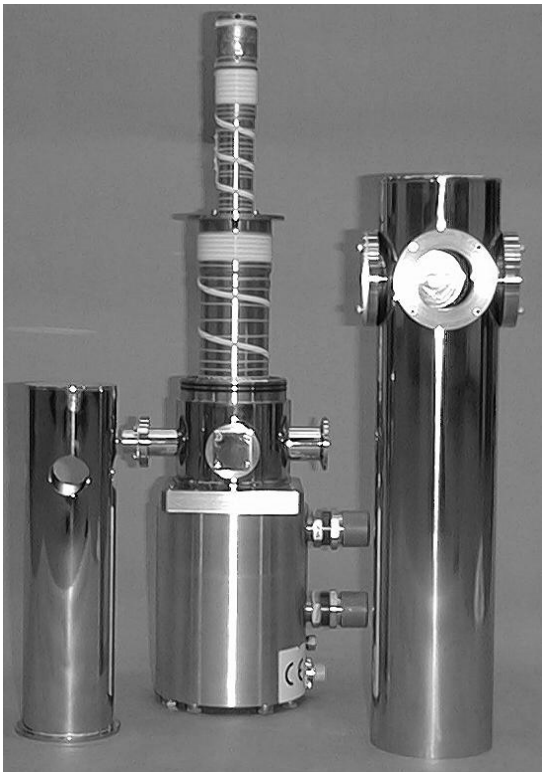
Model:

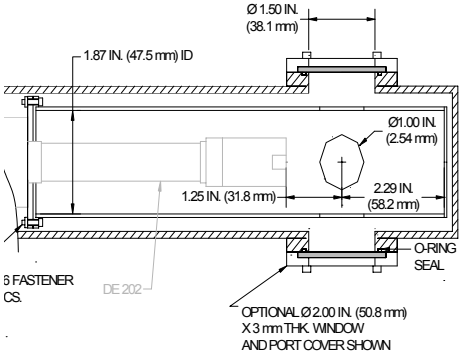
CS102-x4(***T***)	<25K	Fast Cooldown
CS202A-x4	<9K	
CS202A(***T***)-x4	<9K	***Turbo*** - for Higher Power
CS202N-x4	<6K	
CS202S-x4	<4K	

Applications:
Optical, Electro-Optical, Raman
UV, Vis, IR, FTIR, Electro & Photoluminescence.
PICTS / DLTS, Resistivity/Hall Probe Experiments
Diamond Anvil Cell, DIP, Liquid Samples. Magneto-Optical.
Non-Optical, Thermal, Electrical and Magnetic Susceptibility.

Standard Features:

- 4 Window ports. 1.5 in. diameter windows.
- Optical Access, ***f / 1.1*** to collect weak optical signals.
- Large sample space; 1.87 in (diameter) * 3.5 in. (long).
- Pneumatic Drive Displex Cryocooler for low vibrations at the sample (see Specifications).
- Vacuum Shroud; High Vacuum, All welded stainless steel. No epoxy joints prevent outgassing and sample contamination.
- Vacuum Shroud; Rotatable under vacuum. Double O-ring.
- Sample in vacuum.
- Sample Holder, two component with groove for indium wire for good thermal contact with sample.
- Metallized thermofoil heater for long heater life.
- Vacuum valve with NW-25 flange installed.
- Three Instrumentation Ports. One used for temperature control instrumentation. Two are blanked off and user configurable for electrical experiments.





Cryocooler Specifications at 60 Hz.					
Cryo-cooler Model:	**DE-102 (T)**	**DE-202A**	**DE-202A(T)**	**DE-202N**	**DE-202S**
Compressor Model	ARS-4HW	ARS-2HW	ARS-4HW	ARS-2HW	ARS-4HW
Temperature Range	<25K-350K	<9K -350K	<9K-350K	<6K – 350K	<4K – 350K
Cooldown Time to 20K	15 min (to 77K)	50 Minutes	30 Minutes	60 Minutes	60 Minutes
Cooling Power (2nd Stage)		0.5 Watts/10K	0.7 Watts/10K	1 Watts/10K	0.12 Watts/4K
		2.5 Watts /20K	2.5 Watts /20K	2.3 Watts /20K	2.3 Watts /20K
Cooling Power (1st Stage)	25 Watts/77K	10 Watts/77K	15 Watts/77K	10 Watts/77K	10 Watts/77K
Vibrations at sample	NA	+/- 15 Microns	Same	Same	Same
Compressor Maintenance	12,000 Hrs.				
Ambient, Operating	12 C – 40 C (54 F - 104 F)				
System Weight:	Cryo-cooler – 6 Kg. Compressor – 62 Kg.				
Power Requirements:	208-230V, 60 Hz. 208-220V, 50 Hz. Optional: 230V or 240V, 50 Hz. (With optional transformer)				
Notes: 1. 50 Hz operation will have reduced performance, see specifications for details. 2. These specifications are for the cryocooler only. Actual performance will depend on parasitic and experimental heat loads.					

Sample Holders:
Optical shown above
and
Hall Probe shown below.

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