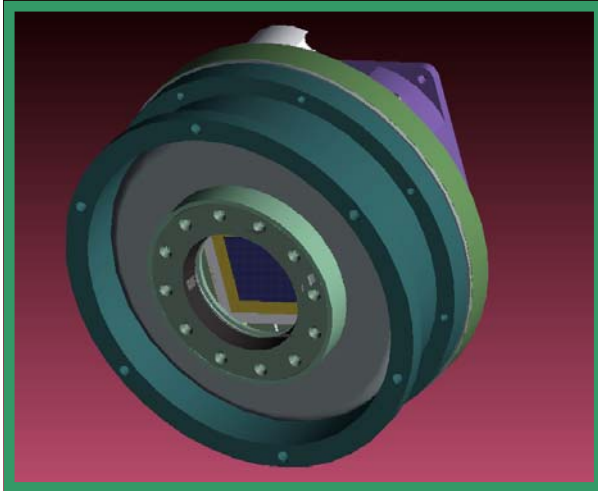


SIT-300 Data Sheet



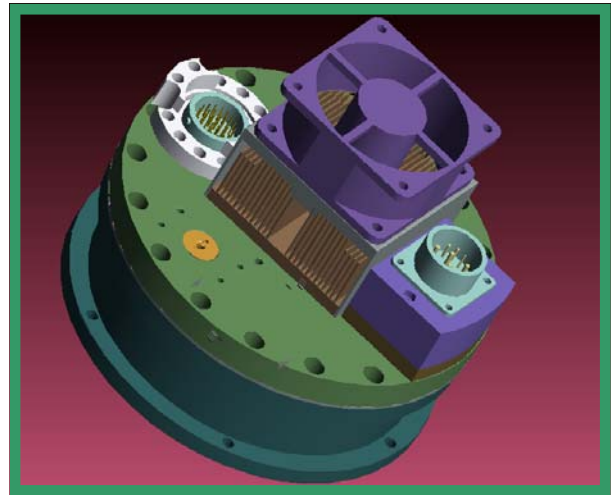
The Sci-in Tech three stage thermoelectrically cooled camera cools a 2K² CCD -53°C with liquid cooling @ +20°C. Window sizes are 2" diameter to 3-1/2" diameter. Window heater prevents condensation from forming on the window. The Sci-in Tech RA-B-VCO vacuum port is standard. Viton "O" Ring sealed for vacuum or Argon purged. Housing construction, 304 S.S. and hard anodized aluminum.



Front view shows the stainless steel housing and mounting tube. Six holes mount the camera or the PS-250 shutter. Four wires feed into the inner bore of the mount tube, two wires for the window heater, and two spares to use for other devices, (shutter, switch, sensor, etc).


Rear view shows the centrally located air heat exchanger. (Liquid heat exchanger not shown.) Other features are:

- 12:00– Signal Connector
- 6:00– Power Connector
- 10:00– Vacuum Valve Port



Standard and Custom Design

Cameras can be made with E2V, Imager Labs, Fairchild, SITe, Kodak, and others, according to customer specific requirements. CCD shape, size, mounting configuration and wiring vary considerably and have to be considered for every camera head. While most CCDs fit with the standard housing, some might involve a modified design.

							
CCD OPERATING TEMPERATURE MEASUREMENT							
CCD TYPE	SERIES CAMERA	WIRE HARNESS	CCD CHAMBER ENVIRONMENT	T.E.C. COOLING	TEMPERATURE		
					AMBIENT	CCD TEMP	T
SITe 2Kx2K 15μ	SIT-300	WITH	VACUUM	AIR	+22°C (295K)	-62°C (211K)	84°C
SITe 2Kx2K 15μ	SIT-300	WITH	ARGON PURGE	AIR	+22°C (295K)	-48°C (225K)	70°C
SITe 2Kx2K 15μ	SIT-300	WITH	NITROGEN PURGE	AIR	+18°C (291K)	-39°C (234K)	57°C
SITe 2K x 2K 24μ	SIT-400	W/O	VACUUM	LIQUID	+17°C (290K)	-72°C (201K)	89°C
E2V 2K x 2K 13.5μ	SIT-400	WITH	NITROGEN PURGE	LIQUID	+22°C (295K)	-46°C (227K)	68°C
E2V 2K x 2K 13.5μ	SIT-400	W/O	VACUUM	LIQUID	+20°C (293K)	-73°C (205K)	93°C
E2V 2K x 2K 13.5μ	SIT-400	WITH	VACUUM	LIQUID	+20°C (293K)	-69°C (204K)	89°C

SIT-300 Data Sheet

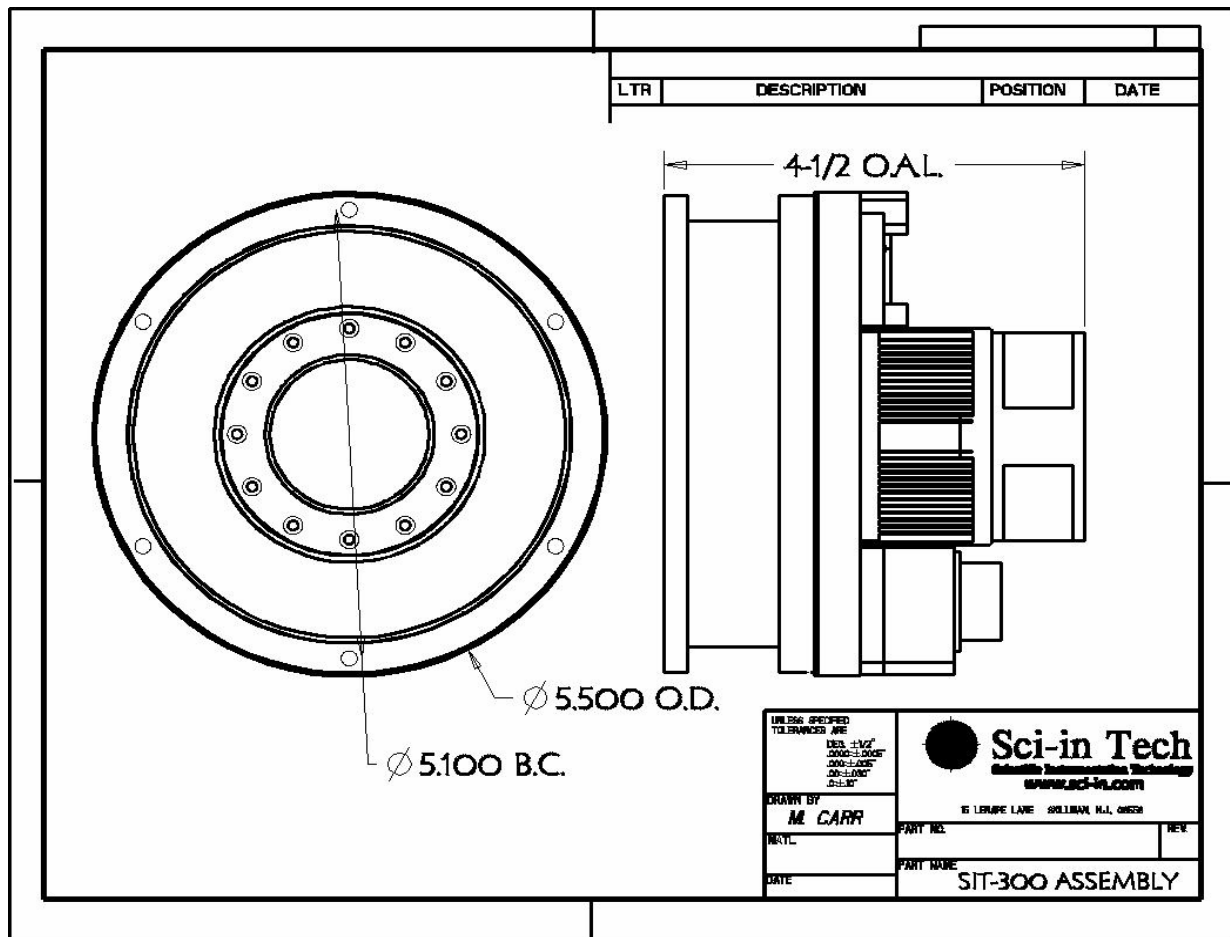


SIT-300 STANDARD SPECIFICATIONS

- | | |
|---|---|
| <ul style="list-style-type: none"> ▶ STAINLESS STEEL & ALUMINUM HOUSING ▶ WELDED AND VACUUM BRAZED CONSTRUCTION ▶ VITON MAIN HOUSING SEAL AND VALVE PLUG | <ul style="list-style-type: none"> ▶ WINDOW SIZES 2.00"Ø TO 3.50"Ø, .125" TO .250 THICK ▶ WINDOW MATERIAL UV GRADE FUSED SILICA ▶ 1/4λ 2x AR COATED ▶ WINDOW HEATER (20 OHMS) |
| <ul style="list-style-type: none"> ▶ RA-B-VCO VALVE PORT ▶ REAR PLATE TEC THERMAL PROTECTION SWITCH | <ul style="list-style-type: none"> ▶ LIQUID COOLED COPPER HEAT EXCHANGER
-OR- ▶ AIR COOLED COPPER HEAT EXCHANGER W/ 12VDC FAN |

TEC ELECTRICAL POWER= 12 VDC. 3.5 A. (42 W), LIQUID COOLING= H₂O @ 21°C, ~1 to 2 L/min

Please contact us for pricing and delivery information



Please note that while Sci-in Tech provides customer assistance in integration of components by third party vendors, we do not have full access to data concerning the use and application of Sci-in Tech camera housings. Therefore, Sci-in Tech assumes no liability and is not responsible for customer applications, electronics, CCDs or product or software design or performance relating to third party systems or applications incorporating Sci-in Tech products