

## PTC-3

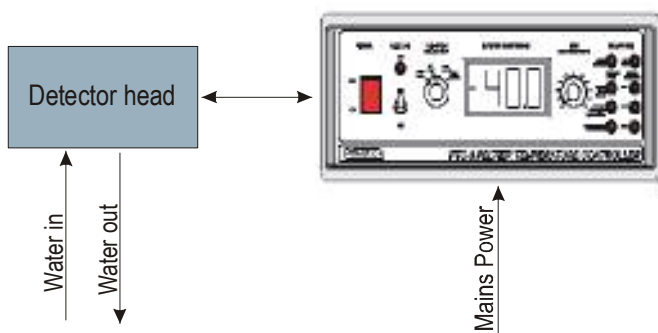
### FEATURES

- Complete temperature control of imaging or photon counting intensifier.
- Cools intensifier with in the temperature range  $-40^{\circ}\text{C}$  to  $+10^{\circ}\text{C}$
- Safety interlock on cooling water, power supply and thermocouple sensor.
- LCD displays the set or actual temperature to a resolution of  $0.1^{\circ}\text{C}$

### DESCRIPTION

IPD, HRPCS and photomultiplier photon counting systems which have a S20 or S25 photocathode for high red sensitivity, have an inherently high dark noise. This can be dramatically reduced through cooling the device.

The Peltier Temperature Controller (PTC-3) and head assembly can cool an imaging intensifier tube to a minimum temperature of  $-40^{\circ}\text{C}$  and thus reduce the system dark noise count from approximately  $5,000\text{ cps/cm}^2$  to less than  $20\text{ cps/cm}^2$ , with no loss of red response detection. The controller can also be used to cool and stabilise the dark noise of other photocathodes such as the low noise S20.



WATER REQUIREMENTS	
Recommended minimum flow rate	2 l/min
Minimum head required	2 m
Maximum recommended water temperature	$20^{\circ}\text{C}$
Maximum input pressure	$3 \times 10^5\text{ Pa}$

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