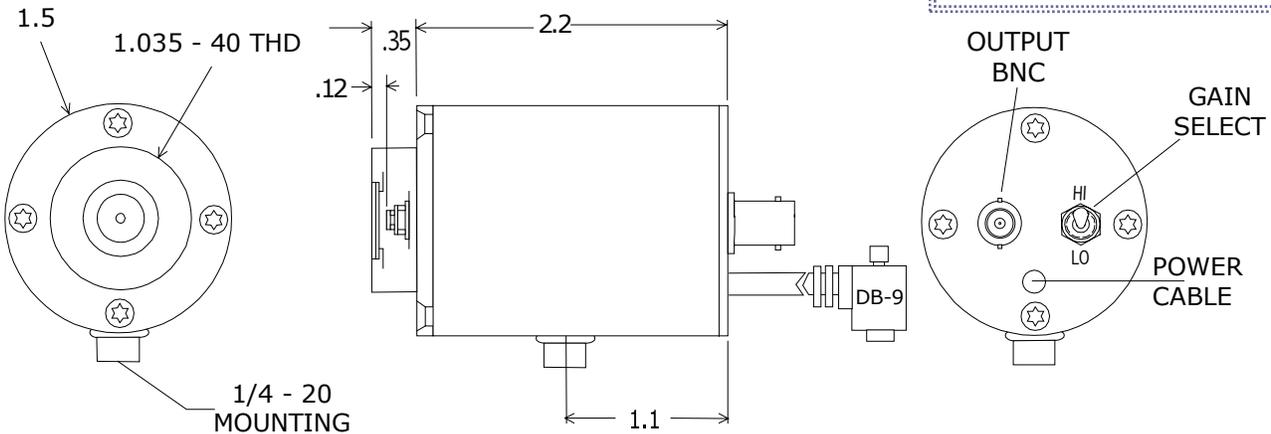
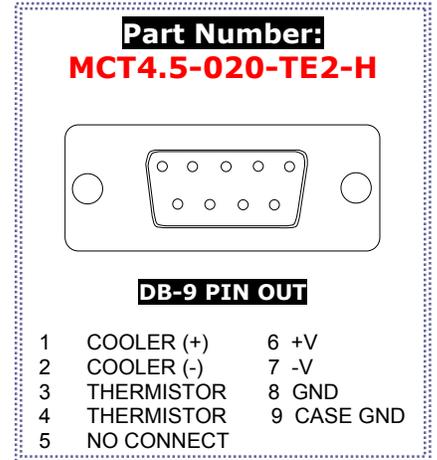
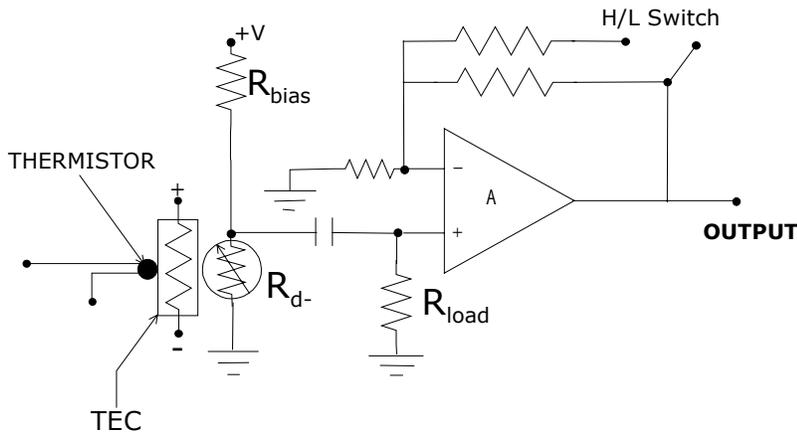


MCT - SERIES PHOTOCONDUCTOR / RECEIVER



Application Note This unit is a high performance photoconductor/receiver operated with a thermoelectric cooler for stabilization/cooling with a dual gain voltage amplifier. The detector's bias voltage is linked to the amplifier power supply and no additional biasing is necessary. The PC/AMP is an AC coupled, dual gain detector system requiring a modulated input signal for operation.

SPECIFICATIONS

Detector Type	2 x 2 mm HgCdTe Photoconductor	
Operating Temperature - °C	22 @ $I_{tec} = 0.0 A$	-30 @ $I_{tec} = 0.6 A$
Operating Wavelength - μm	1.0 - 4.3	1.0 - 4.5
Responsivity - V/W @ pk	$5 \times 10^4 / 10^3$	$2 \times 10^5 / 10^4$
Noise - V/Hz ^{1/2}	$1.0 \times 10^{-6} / 10^{-7}$	$1.3 \times 10^{-6} / 10^{-7}$
D* - cm - Hz ^{1/2} / W @ pk	$> 1 \times 10^{10}$	$> 3 \times 10^{10}$
Bandwidth (-3dB) - Hz	5 - 50 k +	5 - 50 k +
Power Requirements	+/- 9 VDC to +/- 15 VDC	
Connections	BNC signal output. Shielded power cable terminated with a DB-9 connector directly couples the unit with the PS/TC-1 Low Noise Power Supply.	