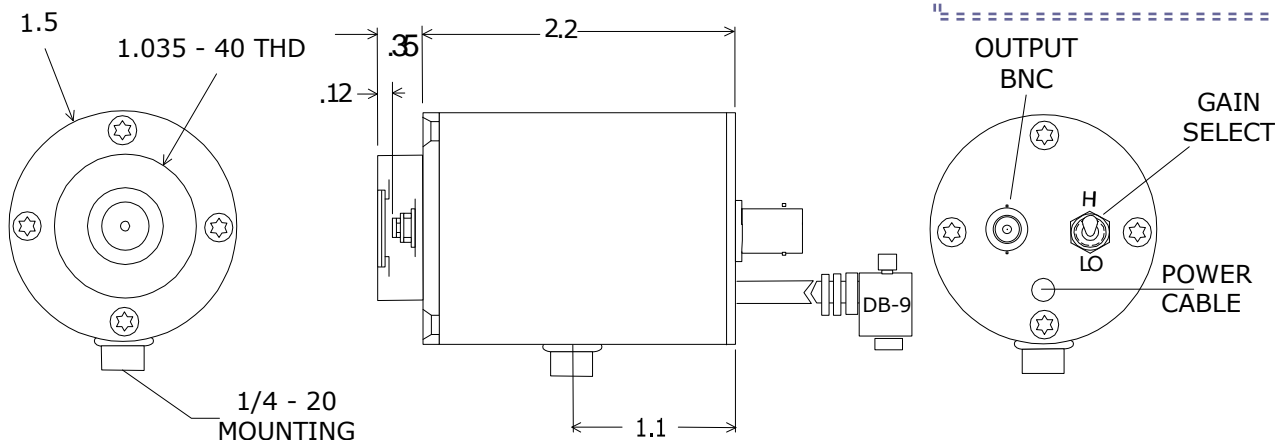
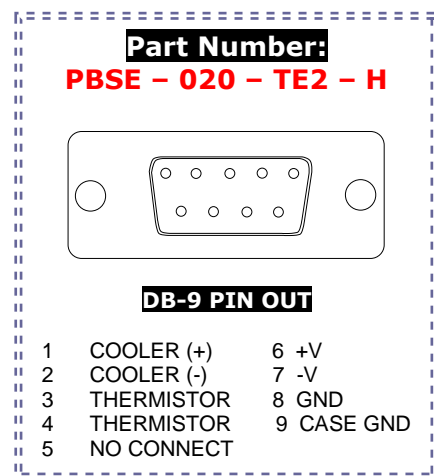
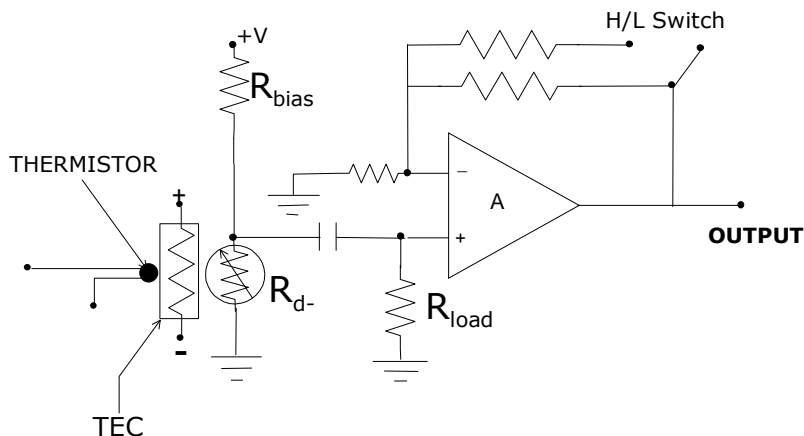


## PBSE - SERIES PHOTONDUCTOR / RECEIVER



**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 PbSe Photoconductor	
Operating Temperature - °C	22 @ $I_{tec} = 0.0 \text{ A}$	-30 @ $I_{tec} = 0.6 \text{ A}$
Operating Wavelength - $\mu\text{m}$	1.0 - 4.5	1.0 - 4.5
Responsivity - V/W @ pk	$1 \times 10^5 / 10^4$	$1 \times 10^6 / 10^5$
Noise - V/Hz <sup>1/2</sup>	$5 \times 10^{-6} / 10^{-7}$	$1 \times 10^{-5} / 10^{-6}$
NEP - W/Hz <sup>1/2</sup> @ pk	$< 5 \times 10^{-11}$	$< 1 \times 10^{-11}$
Bandwidth (-3dB) - Hz	5 - 10k	5 - 10k
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.	

**RoHS Compliant**