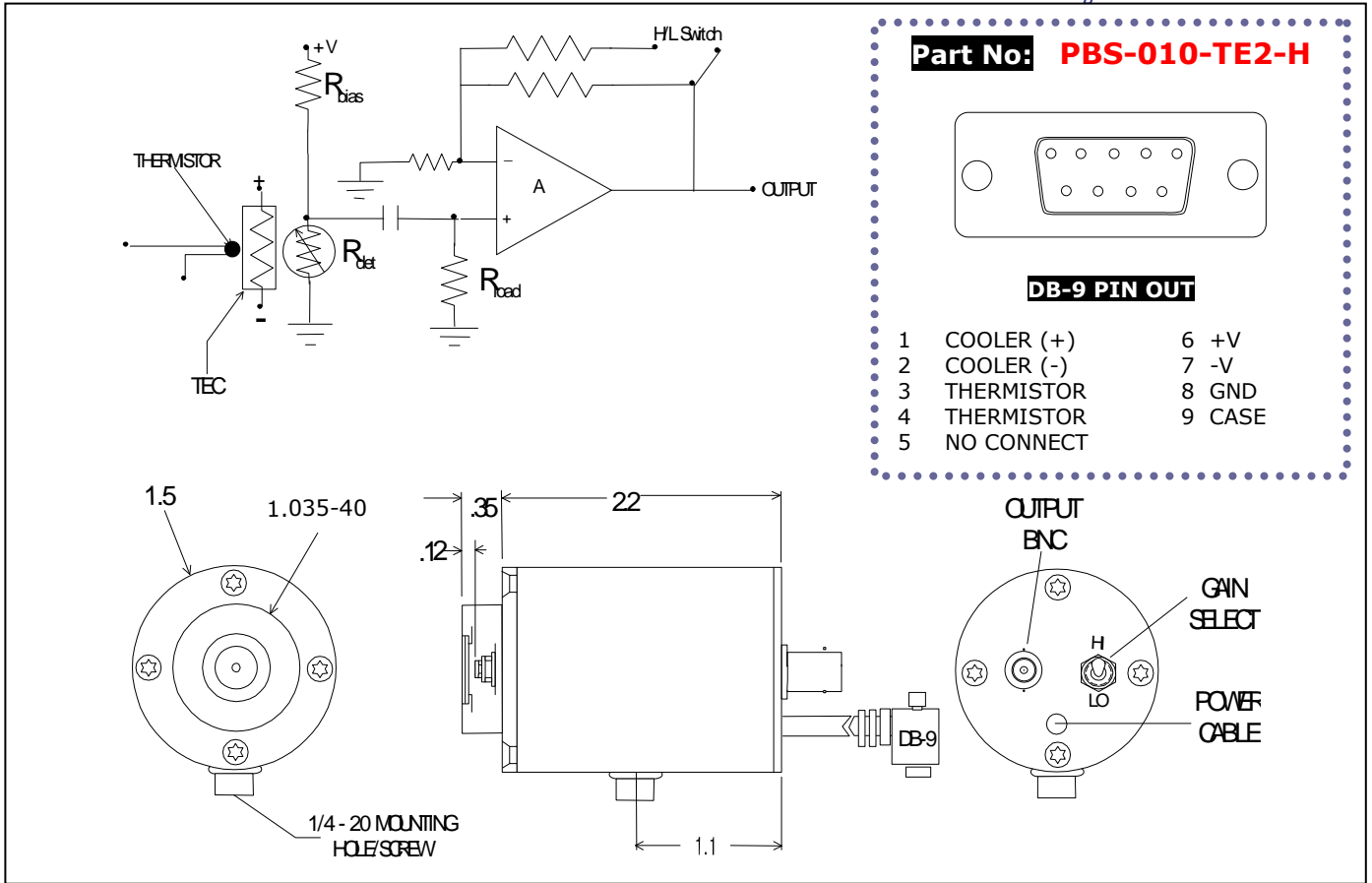


H - SERIES PHOTOCODUCTOR / RECEIVER



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	1 x 1 mm PbS Photoconductor	
Operating Temperature - °C	22 @ $I_{tec} = 0.0 \text{ A}$	-30 @ $I_{tec} = 0.6 \text{ A}$
Operating Wavelength - μm	1.0 - 2.8	1.0 - 2.8
Responsivity - V/W @ 2.6	$2 \times 10^7 / 10^6$	$5 \times 10^7 / 10^6 \text{ typ}$
Noise - V/Hz ^{1/2} @ 400 Hz	$2 \times 10^{-5} / 10^{-6}$	$1.5 \times 10^{-5} / 10^{-6}$
NEP - W/Hz ^{1/2} @ 2.6, 400 Hz	$< 1 \times 10^{-12}$	$< 0.3 \times 10^{-12}$
Bandwidth (-3dB) - Hz	5 - 500	5 - 400
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.	