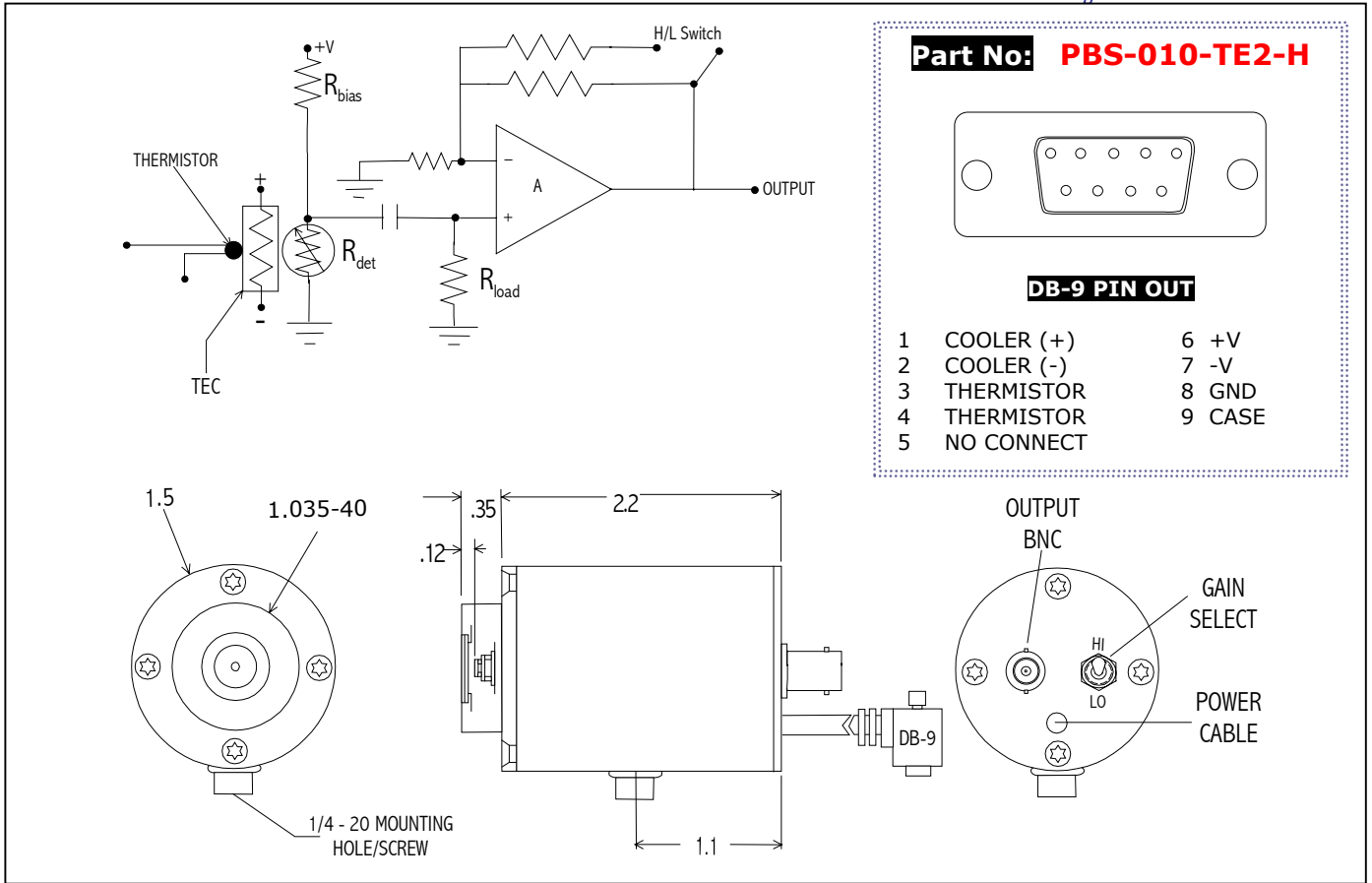


H - SERIES PHOTONDUCTOR / RECEIVER



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	1 x 1 mm PbS Photoconductor	
Operating Temperature - °C	22 @ I _{tec} = 0.0 A	-30 @ I _{tec} = 0.6 A
Operating Wavelength - μm	1.0 - 2.8	1.0 - 2.8
Responsivity - V/W @ 2.6	2 x 10 ⁷ / 10 ⁶	5 x 10 ⁷ / 10 ⁶ typ
Noise - V/Hz ^{1/2} @ 400 Hz	2 x 10 ⁻⁵ / 10 ⁻⁶	1.5 x 10 ⁻⁵ / 10 ⁻⁶
NEP - W/Hz ^{1/2} @ 2.6, 400 Hz	< 1 x 10 ⁻¹²	< 0.3 x 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.	