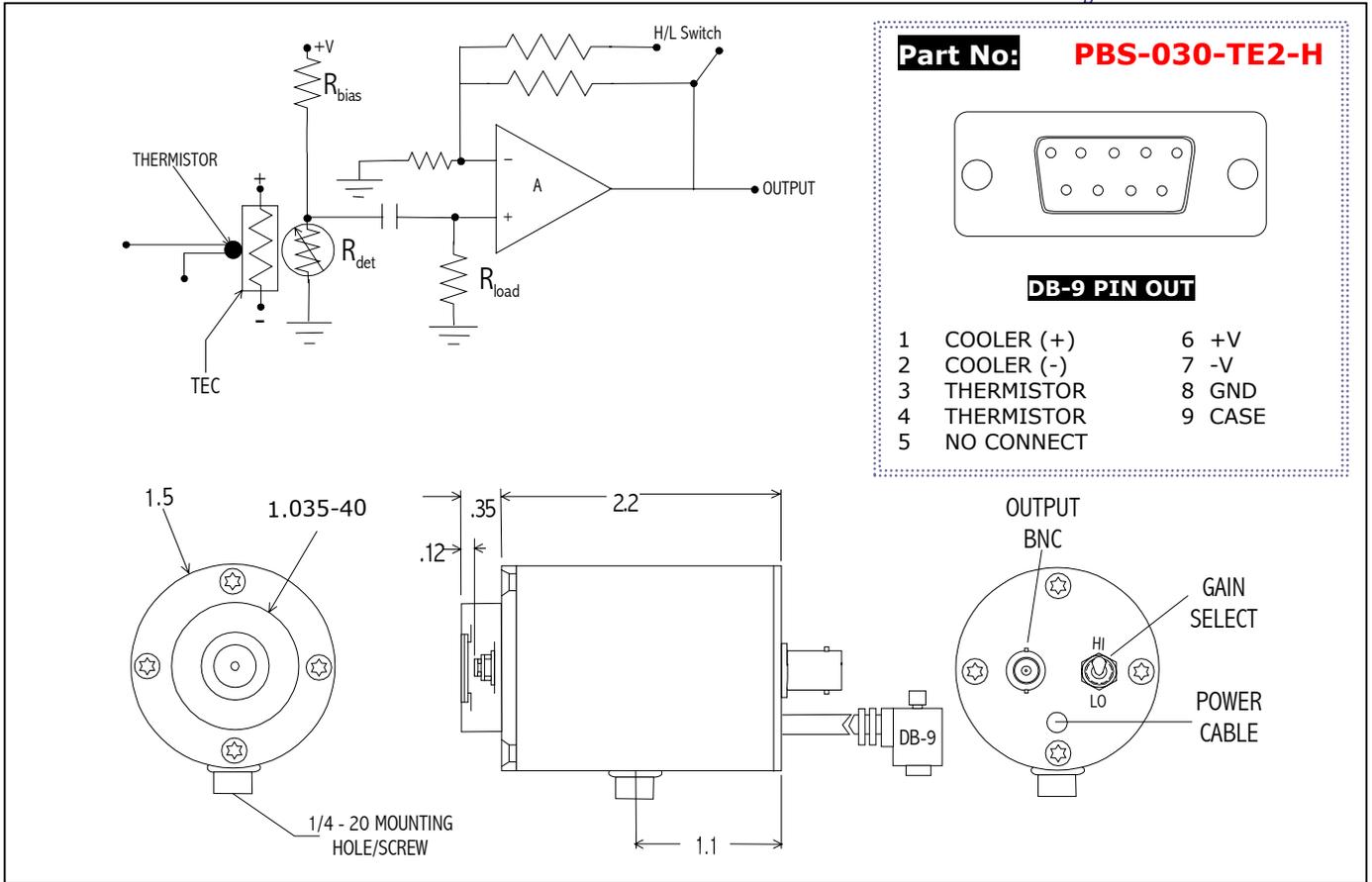


H - SERIES PHOTONDUCTOR / RECEIVER



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 | 3 x 3 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 | $10^7 / 10^6$ | $2 \times 10^7 / 10^6 \text{ typ}$ |
| Noise- V/Hz ^{1/2} @ 400 Hz | $3 \times 10^{-5} / 10^{-6}$ | $2 \times 10^{-5} / 10^{-6}$ |
| NEP- W/Hz ^{1/2} @ 2.6, 400 Hz | $< 3 \times 10^{-12}$ | $< 1.0 \times 10^{-12}$ |
| 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. | |