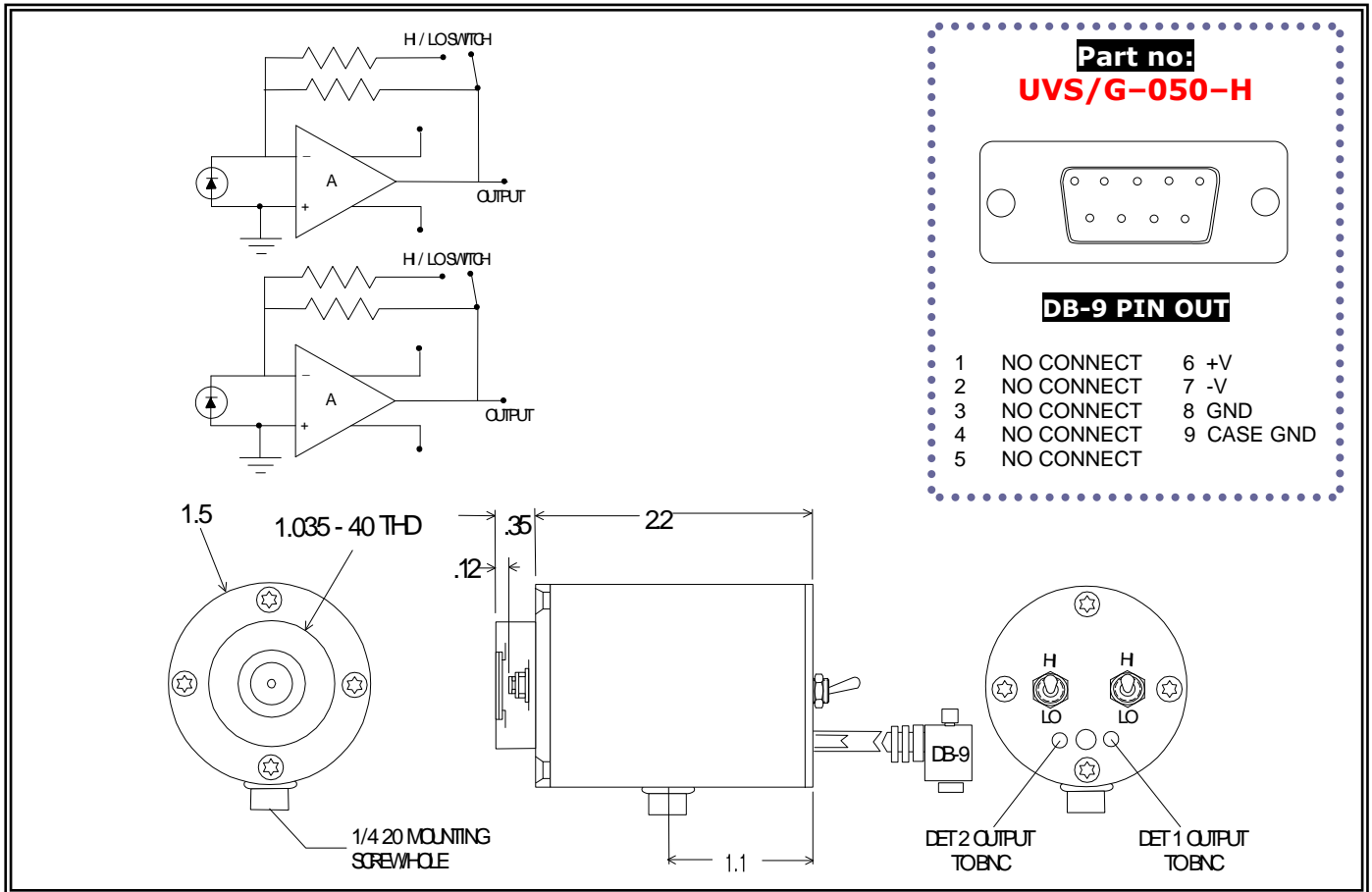


2 - COLOR PHOTODIODE / RECEIVER



Application Note This unit is a high performance two color "sandwich" photodiode/receiver operated at ambient temperature with dual gain FET input transimpedance amplifiers. The output voltage is proportional to the input signal current: $V_{out} = I_{signal} \cdot R_f$. The PD/AMPS are DC coupled dual gain systems. Care should be taken in shielding the unit from stray light during operation to prevent saturation of the amplifiers (and potential failure).

SPECIFICATIONS

| | | |
|--------------------------------------|--|---|
| Detector Type | 5 mm dia UV Si Photodiode / 5 mm dia Ge Photodiode | |
| Operating Temperature - °C | 22 | |
| Operating Wavelength - μm | 0.2 - 1.0 | 1.0 - 1.8 |
| Responsivity - V/W @ pk | $0.6 \times 10^8 / 0.6 \times 10^7$ | $0.6 \times 10^6 / 0.6 \times 10^5$ |
| Noise - V/Hz^{1/2} | $1.2 \times 10^{-6} / 1.2 \times 10^{-7}$ | $1.0 \times 10^{-6} / 10^{-7}$ |
| NEP - W/Hz^{1/2} @ pk | 2×10^{-14} | 2×10^{-12} |
| Bandwidth (-3dB) - Hz | DC - 2k | |
| Power Requirements | +/- 9 VDC to +/- 15 VDC | |
| Connections | Two shielded signal cables terminated with a BNC. Shielded power cable terminated with a DB-9 connector directly couples the unit with the PS-1 Low Noise Power Supply. | |