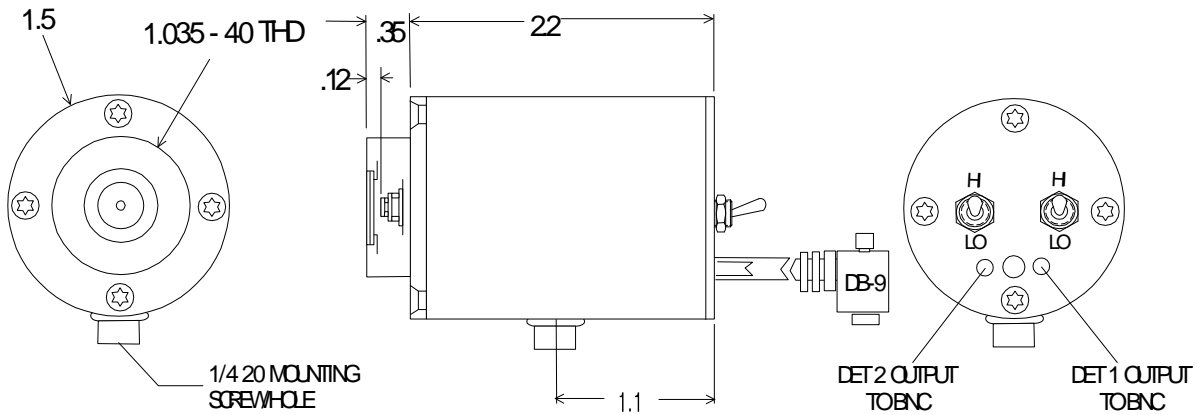
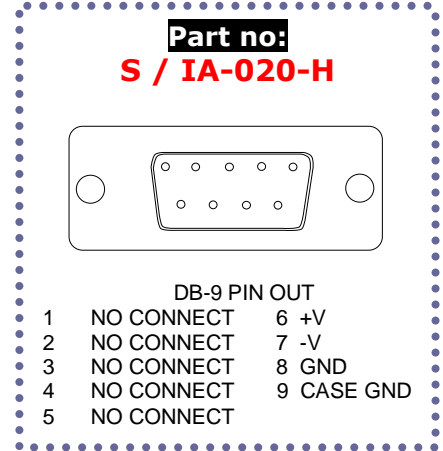
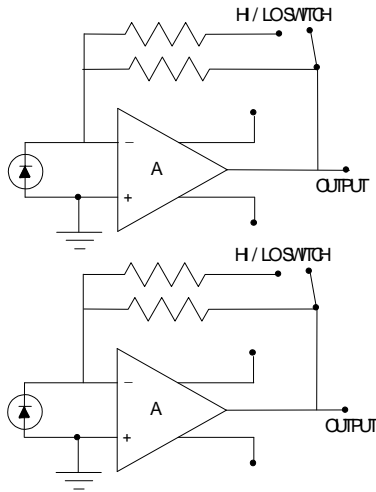


2 - COLOR PHOTODIODE / RECEIVER



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	2 mm dia Si Photodiode /	2 mm dia InAs Photodiode
Operating Temperature - °C	22	
Operating Wavelength - μm	0.3 – 3.5	
Responsivity - V/W @ pk	$0.6 \times 10^8 / 0.6 \times 10^7$	$0.8 \times 10^4 / 0.8 \times 10^3$
Noise - V/Hz ^{1/2}	$1.2 \times 10^{-6} / 1.2 \times 10^{-7}$	$1.6 \times 10^{-6} / 1.6 \times 10^{-7}$
NEP - W/Hz ^{1/2} @ pk	2×10^{-14}	2×10^{-10}
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.	