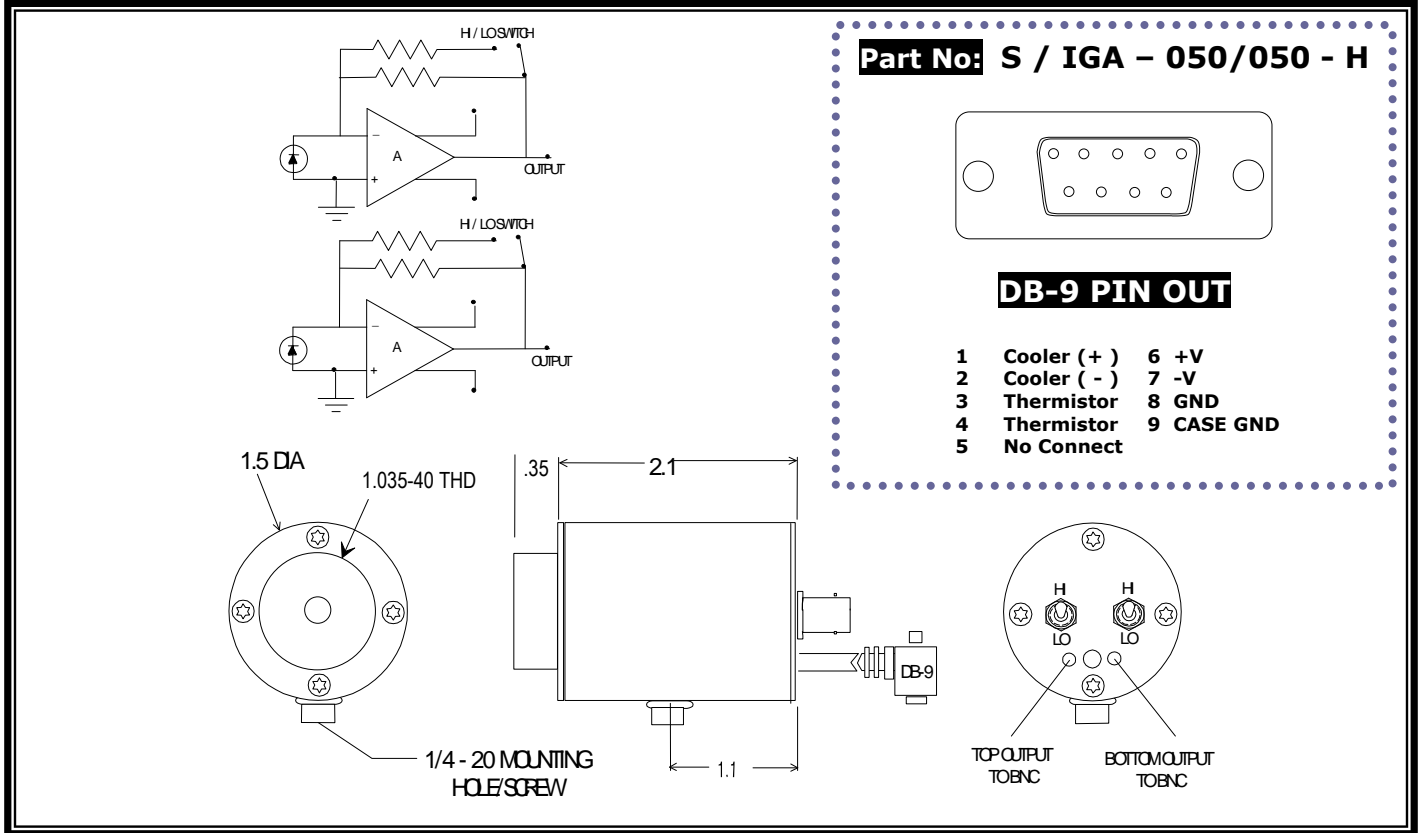


## H - SERIES TWO COLOR PHOTODIODE / RECEIVER



### 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/AMP is a DC coupled dual gain system. Care should be taken in shielding the unit from stray light during operation to prevent saturation of the amplifier (and potential failure).

## SPECIFICATIONS

Detector Type	TOP: 5 mm dia Si Photodiode	BOTTOM: 5 mm dia InGaAs Photodiode
Operating Temperature - °C	22	22
Operating Wavelength - μm	0.3 - 1.0	1.0 - 1.7
Responsivity - V/W @ pk	$0.55 \times 10^8 / 10^7$	$0.6 \times 10^7 / 10^6$
Noise- V/Hz <sup>1/2</sup>	$1.3 \times 10^{-6} / 4.0 \times 10^{-7}$	$2.0 \times 10^{-6} / 2.0 \times 10^{-7}$
NEP- W/Hz <sup>1/2</sup> @ pk	$2.4 \times 10^{-14}$	$3 \times 10^{-13}$
Bandwidth (-3dB)- Hz	DC - 2k	DC - 2k
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 / Controller.	