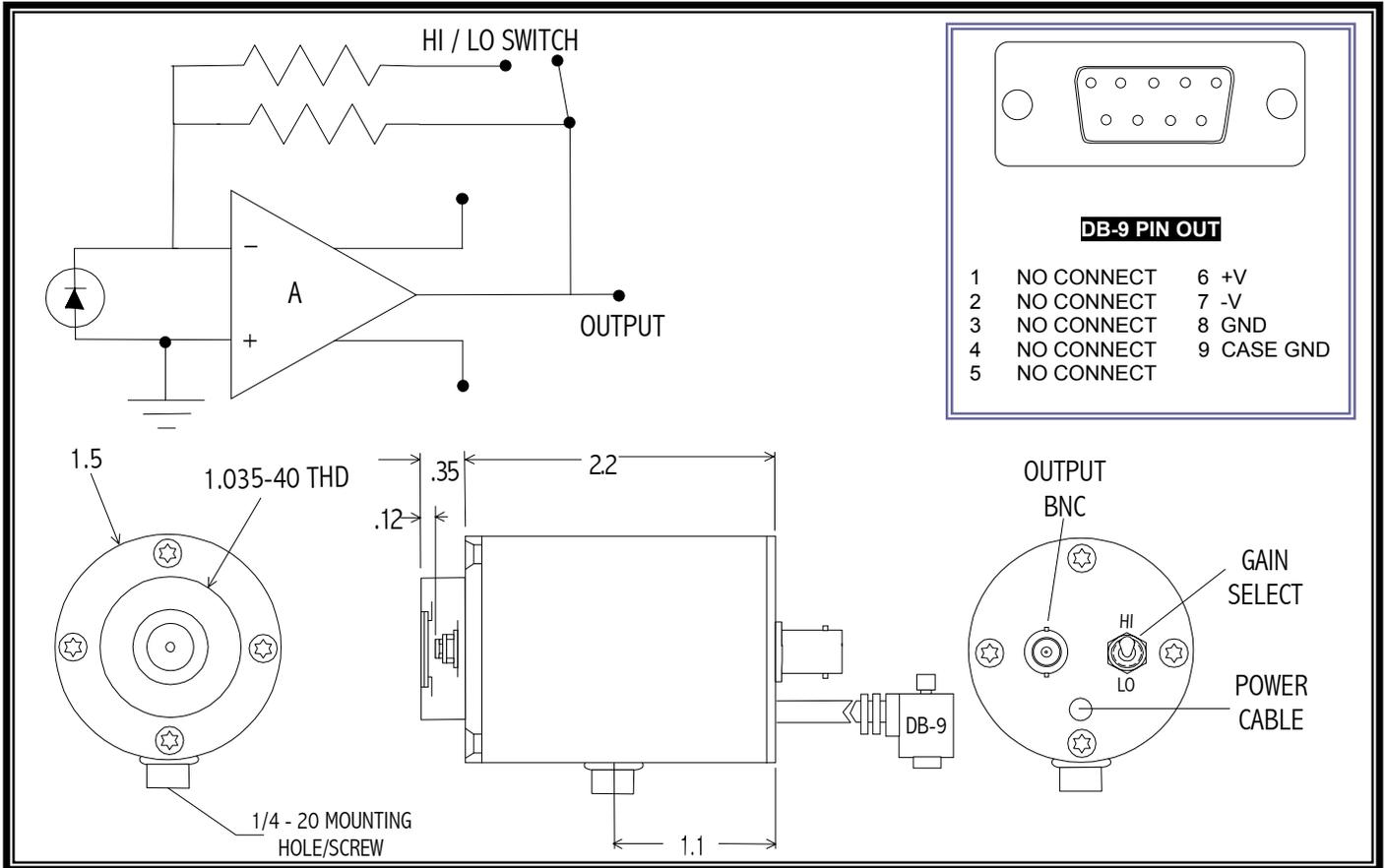


## InGaAs PHOTODIODE RECEIVERS



**Application Note** This unit is a high performance photodiode/receiver operated with at ambient temperature with a dual gain FET input transimpedance amplifier. 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 @ 23° C NOM.

Part Number	IGA - 020 - H	IGA - 030 - H	IGA - 050 - H
Active Area	2mm dia	3mm dia	5mm dia
Operating Wavelength- $\mu\text{m}$	1.0 - 1.7		
Responsivity- V/W @ pk	$0.9 \times 10^8 / 10^7$	$0.9 \times 10^8 / 10^7$	$0.9 \times 10^7 / 10^6$
Noise- V/Hz <sup>1/2</sup>	$5.5 \times 10^{-6} / \times 10^{-7}$	$5.5 \times 10^{-6} / 10^{-7}$	$1.8 \times 10^{-6} / 10^{-7}$
NEP- W/Hz <sup>1/2</sup> @ pk	$6 \times 10^{-14}$	$6 \times 10^{-14}$	$2. \times 10^{-13}$
Bandwidth (-3dB)- Hz	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 -1 Low Noise Power Supply.		