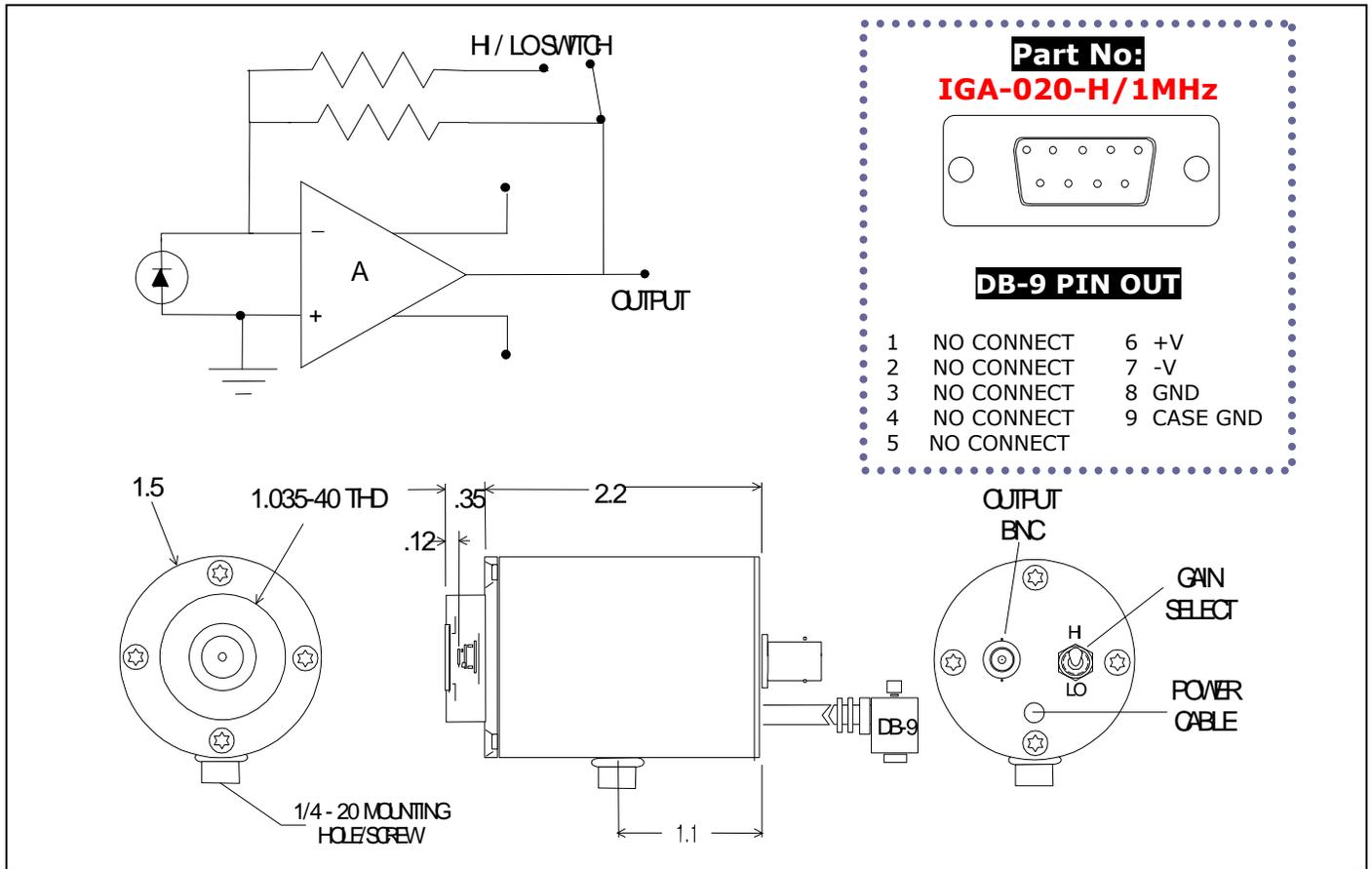


## H - SERIES PHOTODIODE / RECEIVER



**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:  $V_{out} = I_{signal} \times R_f$ . 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	2mm dia InGaAs Photodiode
Operating Temperature - °C	22
Operating Wavelength - μm	1.0 - 1.7
Responsivity- V/W @ 1300nm	$10^5 / 10^4$
Noise - V/Hz <sup>1/2</sup>	$2.5 \times 10^{-7} / 6 \times 10^{-8}$
NEP - W/Hz <sup>1/2</sup> @ 1300nm	$< 2.5 \times 10^{-12}$
Bandwidth (-3dB) - Hz	DC - 100k / 1MHz
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, or flying leads: Red=+V, Black=-V, White/Shield=GND.