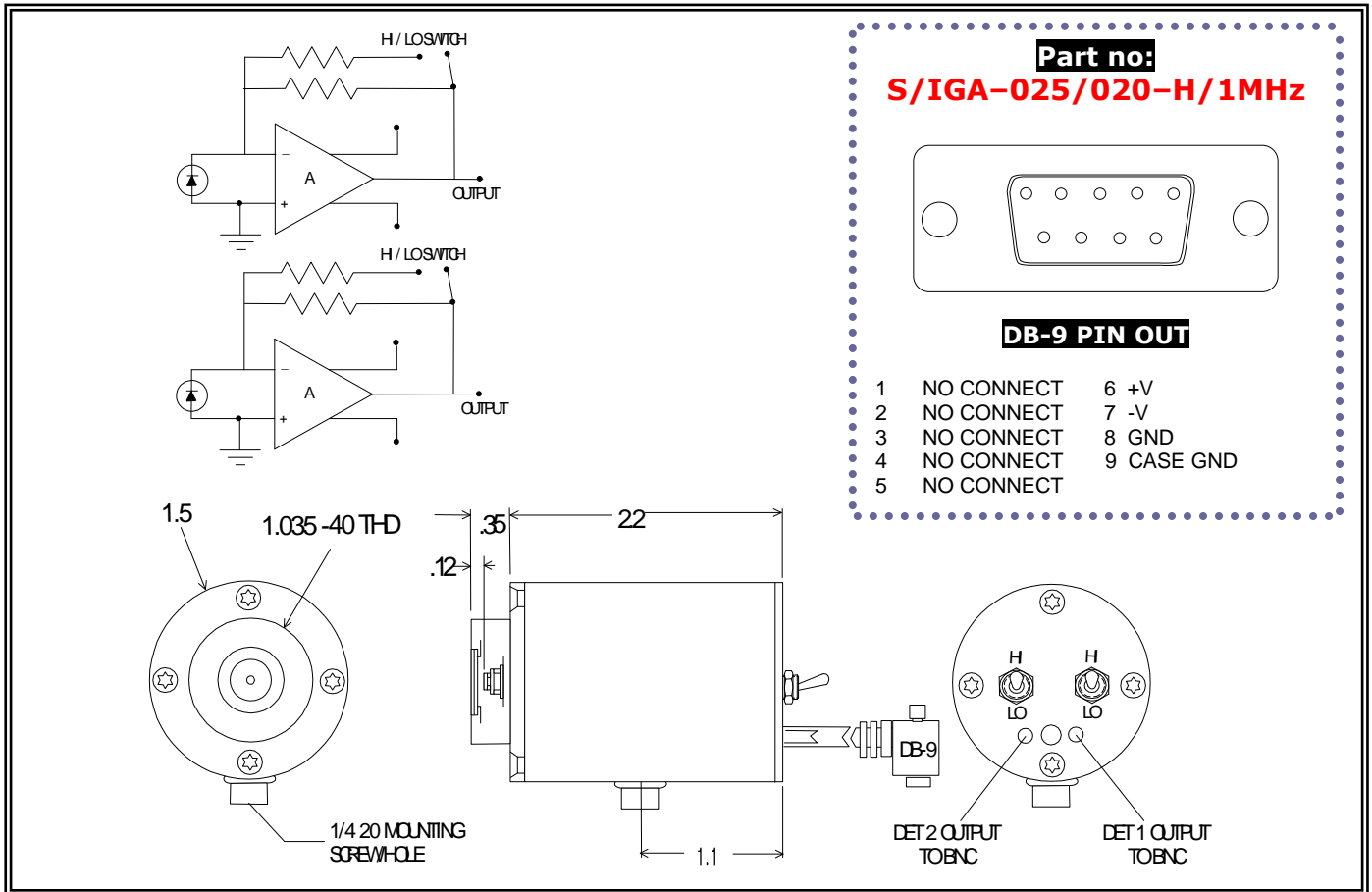


## 2 - COLOR PHOTODIODE / RECEIVER



**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	2.5 mm dia Si Photodiode / 2 mm dia InGaAs Photodiode	
Operating Temperature - °C	22	
Operating Wavelength - μm	0.3 - 1.0	1.0 - 1.7
Responsivity - V/W @ pk	$2 \times 10^5 / 10^4$	$2 \times 10^5 / 10^4$
Noise - V/Hz <sup>1/2</sup>	$0.4 \times 10^{-6} / 10^{-7}$	$0.5 \times 10^{-6} / 10^{-7}$
NEP - W/Hz <sup>1/2</sup> @ pk	$< 2 \times 10^{-12}$	$< 2.5 \times 10^{-12}$
Bandwidth (-3dB) - Hz	DC - 1MHz	DC - 100k / 1MHz
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.	