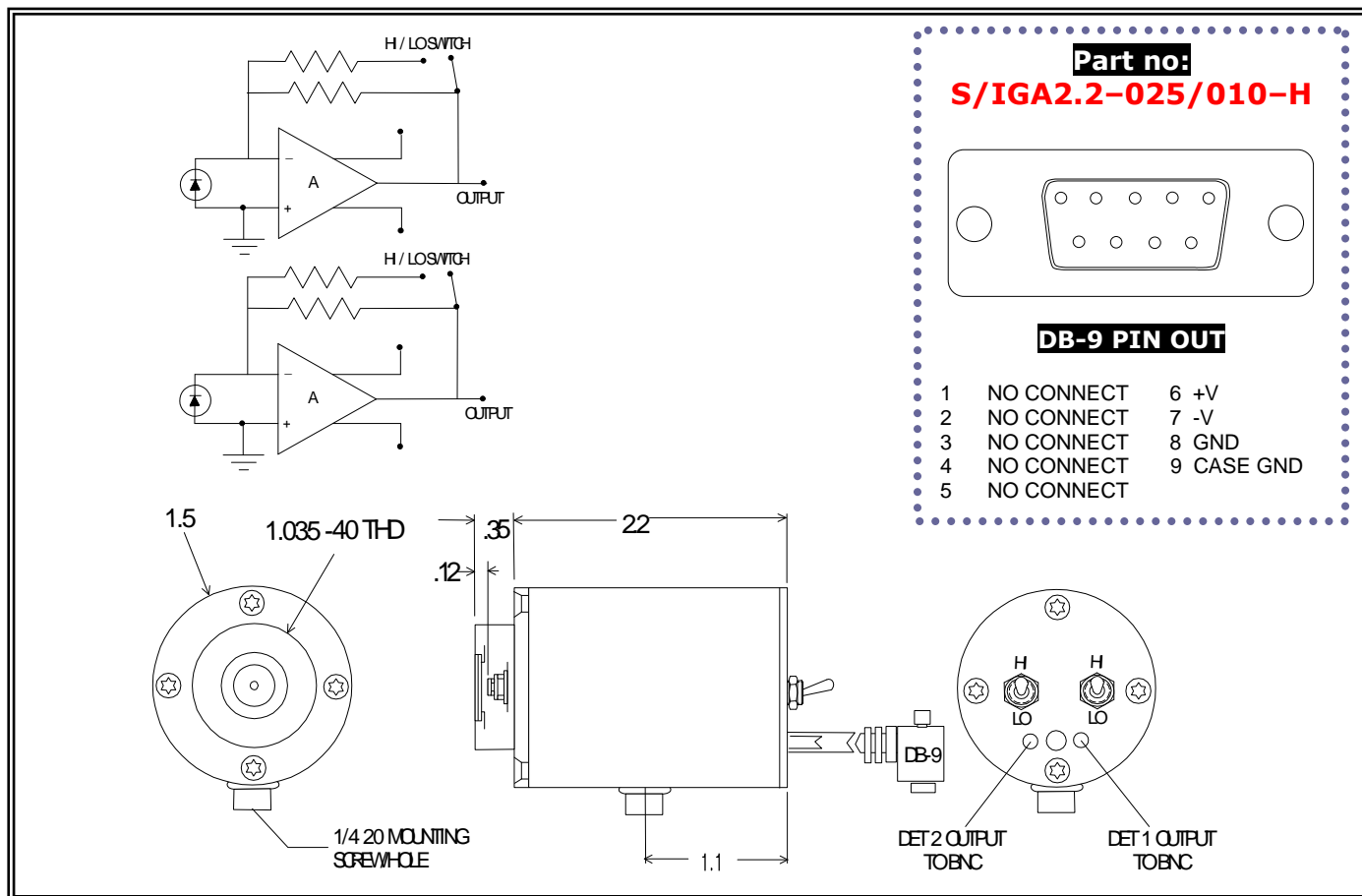


## 2 - COLOR PHOTODIODE / RECEIVER



**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 / 1 mm dia ex-InGaAs Photodiode	
Operating Temperature - °C	22	
Operating Wavelength - $\mu\text{m}$	0.3 - 1.0	1.2 - 2.6
Responsivity - V/W @ pk	$0.6 \times 10^8 / 10^7$	$0.6 \times 10^6 / 10^5$
Noise - V/Hz <sup>1/2</sup>	$1.2 \times 10^{-6} / 10^{-7}$	$1.2 \times 10^{-6} / 10^{-7}$
NEP - W/Hz <sup>1/2</sup> @ pk	$< 2 \times 10^{-14}$	$< 2 \times 10^{-12}$
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.	