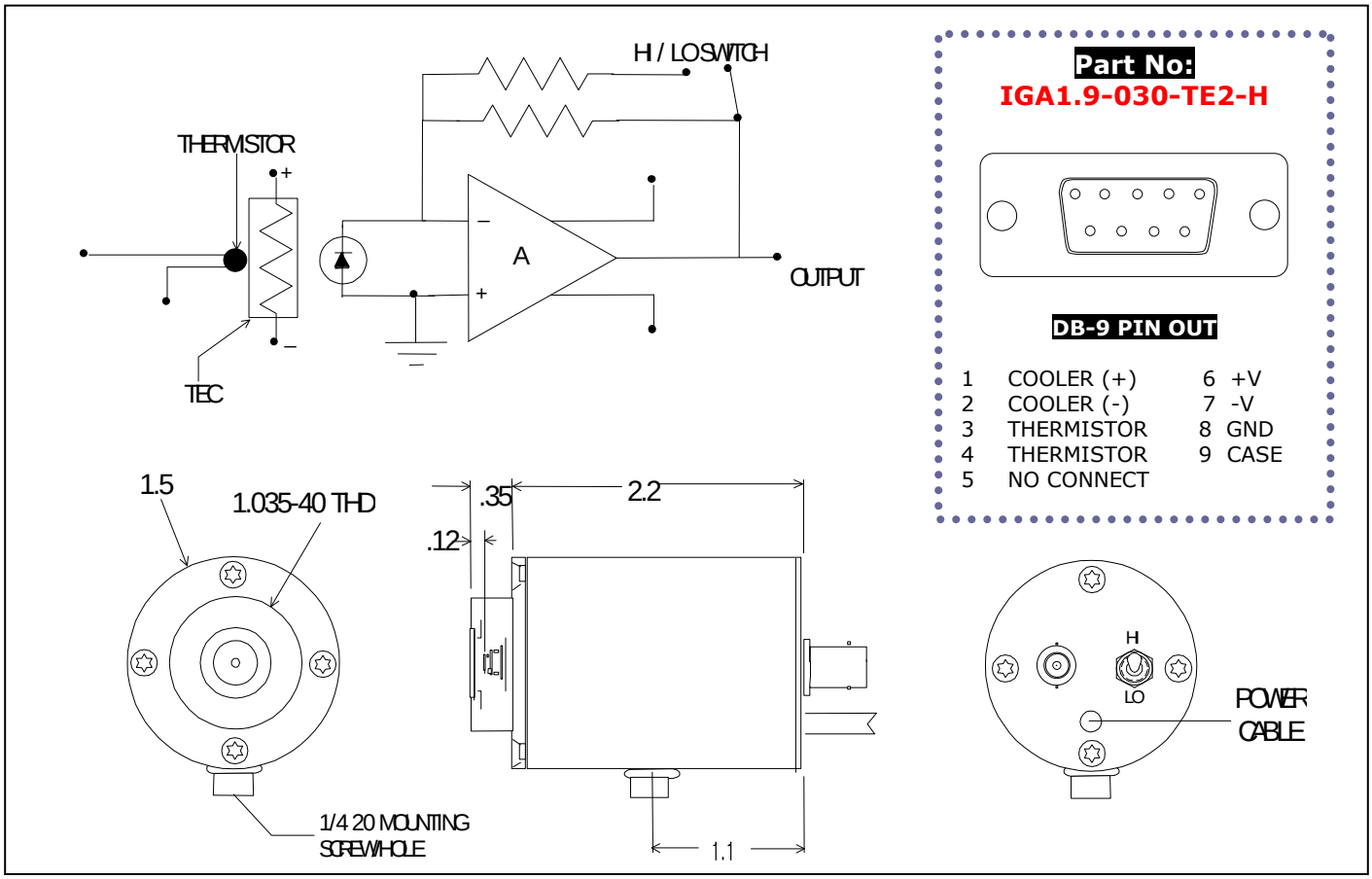
H - SERIES PHOTODIODE / RECEIVER



Part No:
IGA1.9-030-TE2-H

DB-9 PIN OUT

1	COOLER (+)	6	+V
2	COOLER (-)	7	-V
3	THERMISTOR	8	GND
4	THERMISTOR	9	CASE
5	NO CONNECT		

Application Note

This unit is a high performance photodiode/receiver operated with a thermoelectric cooler for stabilization/cooling with a dual gain FET input transimpedence amplifier. The output voltage is proportional to the input signal current: $\mathbf{V_{out} = I_{signal} \cdot R_f}$. 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	**3 mm InGaAs Photodiode**	
Operating Temperature - °C	**25 @ I_{tec} = 0.0 A**	**-30 @ I_{tec} = 0.6 A**
Operating Wavelength - µm	**1.2 – 2.1**	**1.2 – 2.1**
Responsivity - V/W @ pk	**1.0×10^7 / 10^6**	**1.0×10^7 / 10^6**
Noise - V/Hz$^{1/2}$ @ 100 Hz	**10.0×10^{-6} / 10^{-7}**	**2×10^{-6} / 0.3×10^{-7}**
NEP - W/Hz$^{1/2}$ @ 1.9 µm	**< 1.0×10^{-12}**	**< 2×10^{-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.**	

RoHS Compliant

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