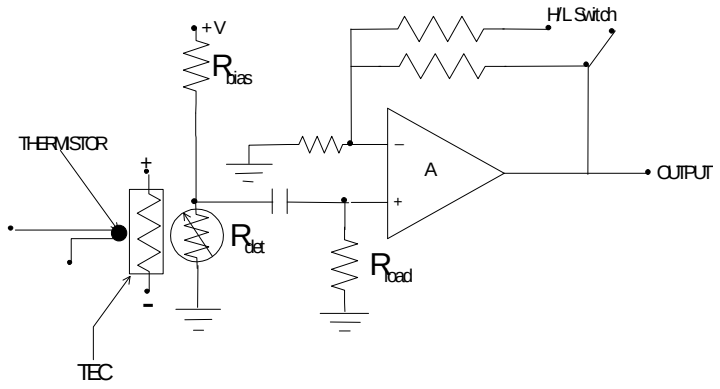
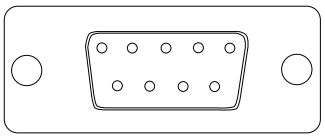
PBSE - SERIES PHOTOCONDUCTOR / RECEIVER

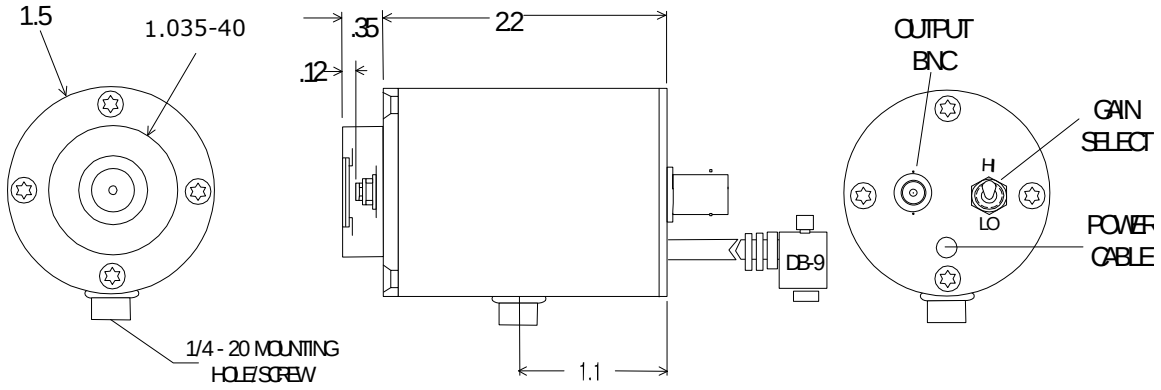


Part No: PBSE-050-TE2-H



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 photoconductor/receiver operated with a thermoelectric cooler for stabilization/cooling with a dual gain voltage amplifier. The detector's bias voltage is linked to the amplifier power supply and no additional biasing is necessary. The PC/AMP is an AC coupled, dual gain detector system requiring a modulated input signal for operation.

SPECIFICATIONS		
Detector Type	**5 x 5 mm PbSe Photoconductor**	
Operating Temperature - °C	**22 @ I_{tec} = 0.0 A**	**-30 @ I_{tec} = 0.6 A**
Operating Wavelength - µm	**1.0 – 4.5**	**1.0 – 4.5**
Responsivity - V/W @ 4.2	**10^5 / 10^4**	**3 x 10^5 / 10^4 typ**
Noise - V/Hz$^{1/2}$ @ 1k Hz	**2.5 x 10^{-5} / 10^{-6}**	**5.0 x 10^{-5} / 10^{-6}**
NEP - W/Hz$^{1/2}$ @ 4.2, 1k Hz	**< 2.5 x 10^{-10}**	**< 5.0 x 10^{-11}**
Bandwidth (-3dB) - Hz	**5 – 3 k**	**5 – 3 k**
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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