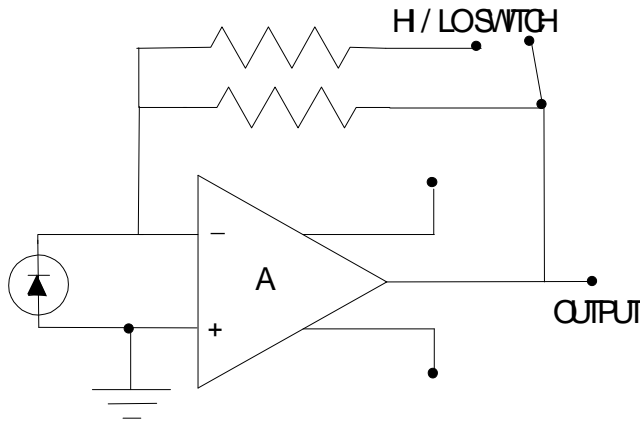
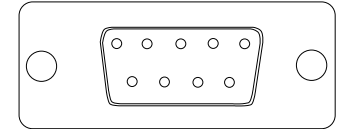


## H - SERIES PHOTODIODE / RECEIVER



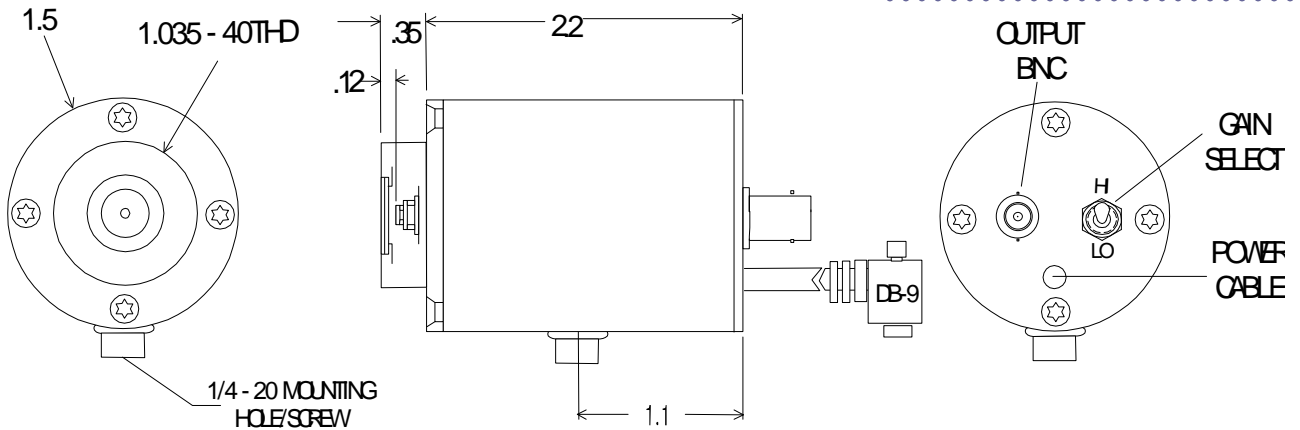
**Part no:**

**IA - 020 - H**



**DB-9 PIN OUT**

- |   |            |            |
|---|------------|------------|
| 1 | NO CONNECT | 6 +V       |
| 2 | NO CONNECT | 7 -V       |
| 3 | NO CONNECT | 8 GND      |
| 4 | NO CONNECT | 9 CASE GND |
| 5 | NO CONNECT |            |



### 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:  $V_{out} = I_{signal} \cdot R_f$ . 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

<b>Detector Type</b>	<b>2.0 mm dia Indium Arsenide Photodiode</b>
<b>Operating Temperature- °C</b>	<b>22</b>
<b>Operating Wavelength - μm</b>	<b>1.0 – 3.5</b>
<b>Responsivity- V/W @ pk</b>	<b><math>0.65 \times 10^4 / 10^3</math></b>
<b>Noise- V/Hz<sup>1/2</sup></b>	<b><math>2 \times 10^{-6} / 10^{-7}</math></b>
<b>NEP- W/Hz<sup>1/2</sup> @ pk</b>	<b><math>2 \times 10^{-10}</math></b>
<b>Bandwidth (-3dB)- Hz</b>	<b>DC – 10kHz</b>
<b>Power Requirements</b>	<b>+/- 9 VDC to +/- 15 VDC</b>
<b>Connections</b>	<b>BNC signal output. Shielded power cable terminated with a DB-9 connector directly couples the unit with the PS -1 Low Noise Power Supply.</b>