

# Instruction Manual



# HVPS R-1800

## Remote High Voltage Power Supply Instruction Manual

### Package Contents:

- 1 HVPS R-1800 High Voltage Power Supply/controller

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### Sold Separately

- Cable and Connector

[www.modionvacuum.com](http://www.modionvacuum.com)

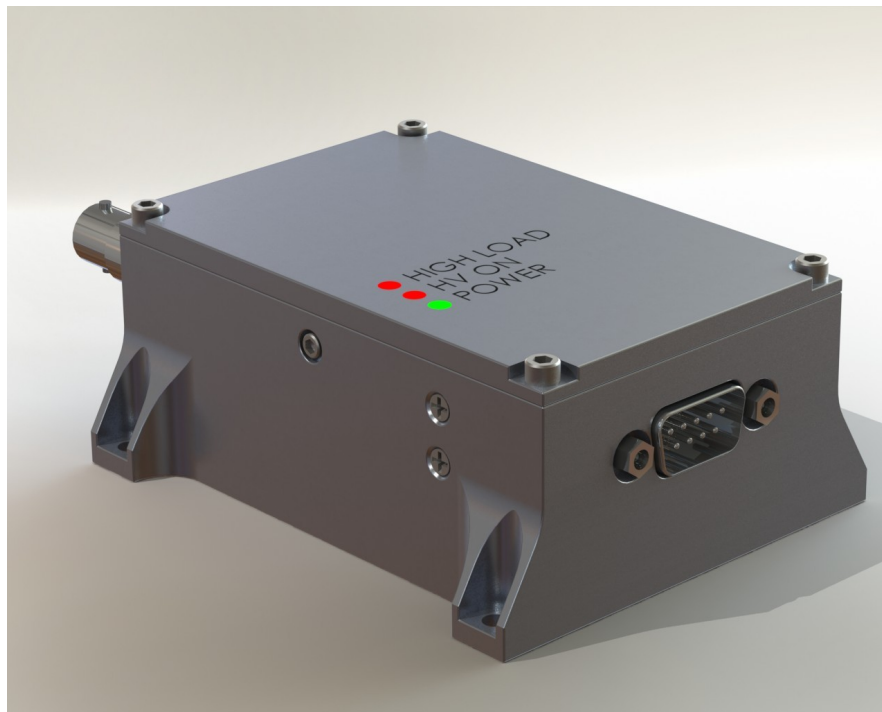
### HVPS R-1800

The HVPS R-1800 is a High Voltage Power Supply/ Controller designed to run .5 l/s through 6 l/s MODION® ion pumps (diode) manufactured by J.B. Anderson & Son, Inc. Please be sure to read and understand all instructions prior to installation and use.



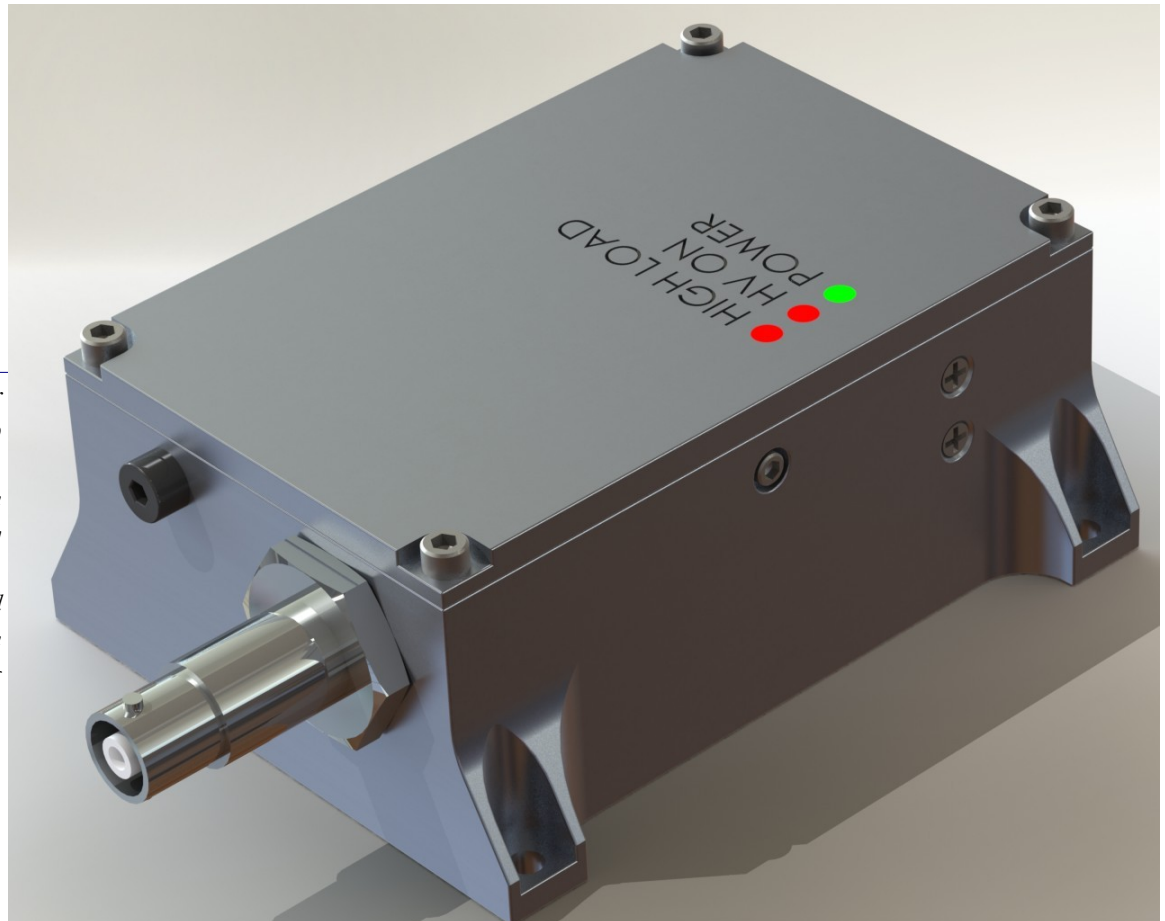
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## HVPS R-1800

*This High Voltage Power Supply is designed to control MODION® .5l/s through 6l/s diode ion pumps manufactured by J.B. Anderson & Son, Inc . Please read and understand the instruction manual prior to using this power supply/ controller.*



## Specifications

### Input

Voltage: 12Vdc

Current: 800mA max

### Output

Voltage: 3500Vdc positive nominal

Current: 1mA max

## **INSTRUCTIONS**

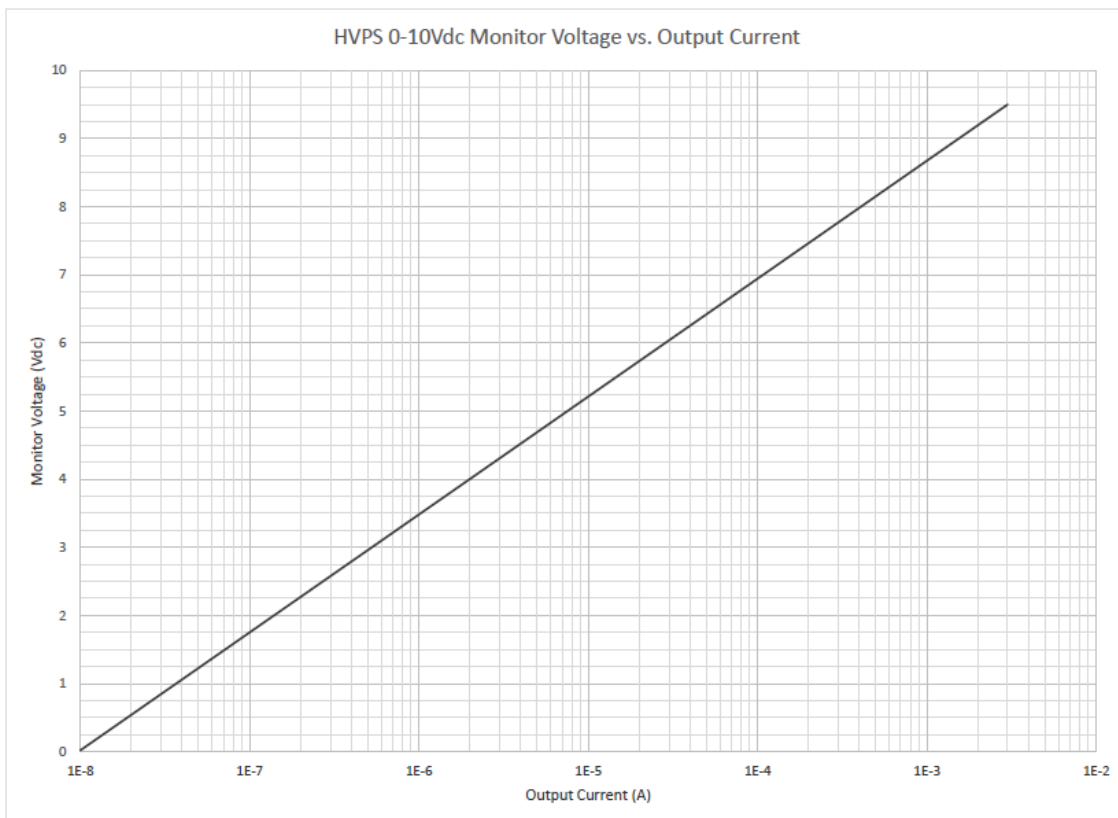
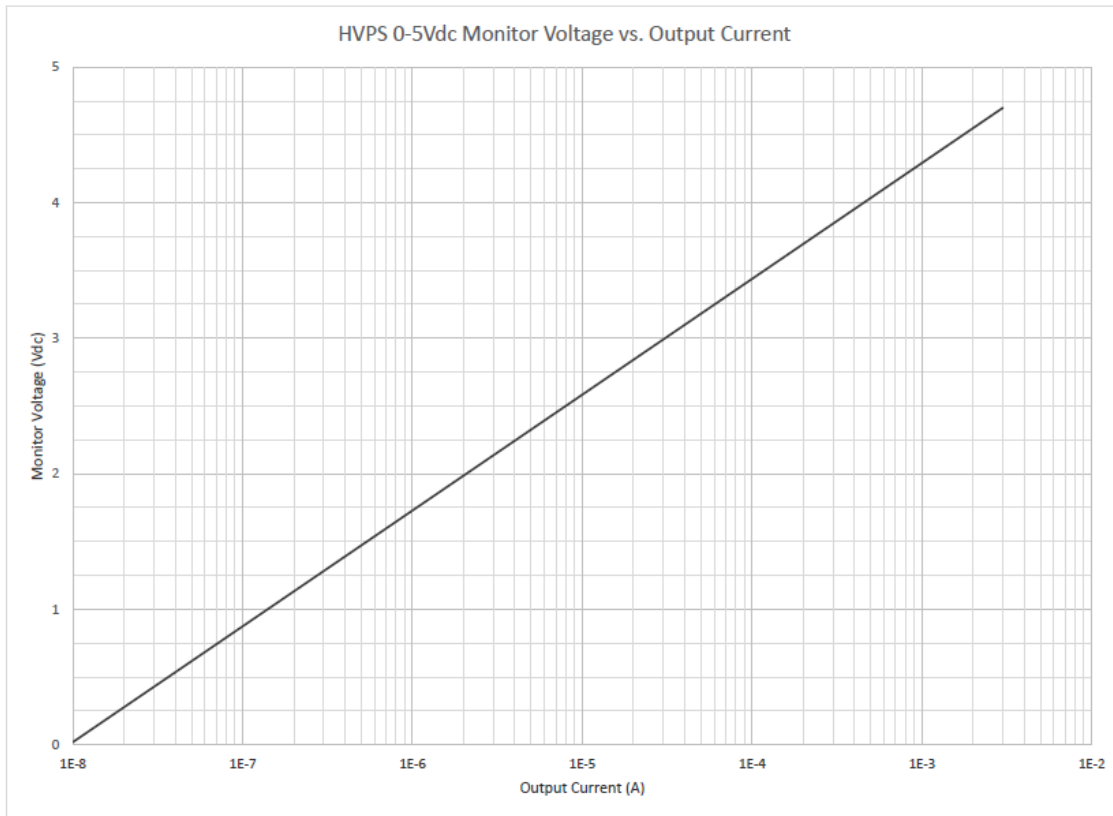
### **Connecting Pump**

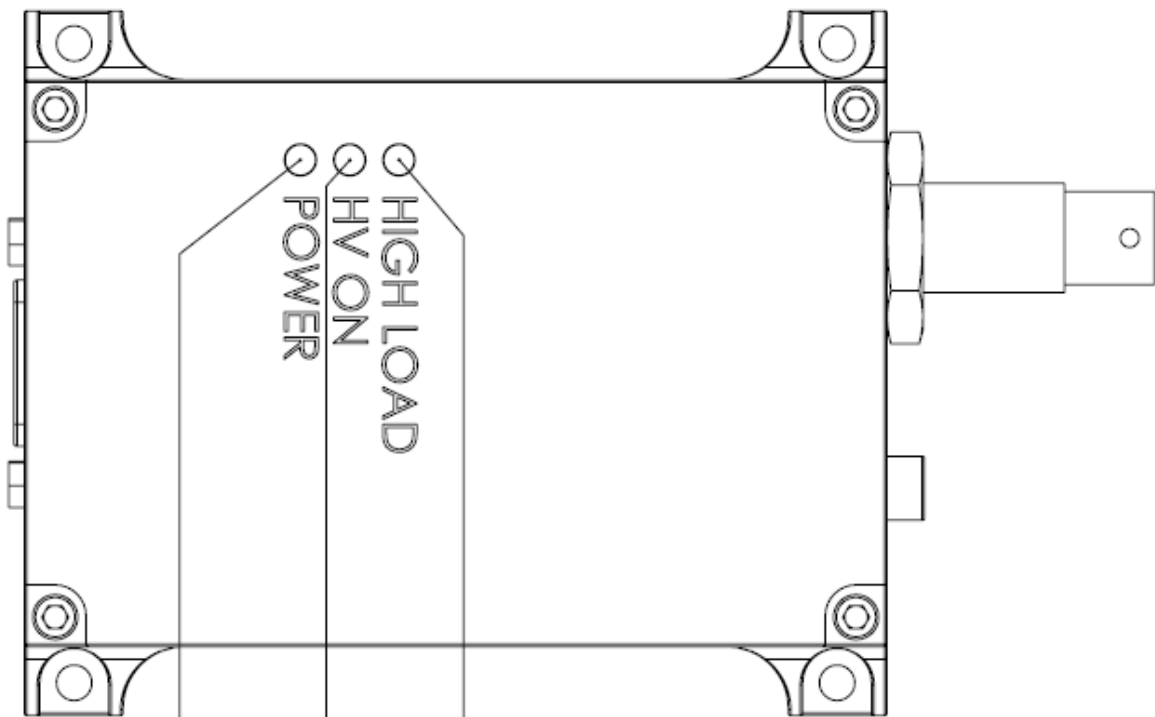
1. Connect the pump side of cable connector to the ion pump.
2. Connect the controller side of the cable to the HVPS R-1800.
3. Connect the safety interlock cable to the HVPS R-1800.
4. Check to make sure the entire system is grounded prior to introducing power.
5. Connect wall adapter power cable to HVPS R-1800
6. Plug in wall adapter to operate.

### **Disconnecting Pump**

1. When disconnecting pump, disconnect power to HVPS R-1800 prior to removing any other cable.
  2. Wait thirty (30) seconds before disconnecting cable. Failure to wait 30 seconds may result in shock due to capacitors not being fully discharged.
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## MONITOR VS. OUTPUT CURRENT



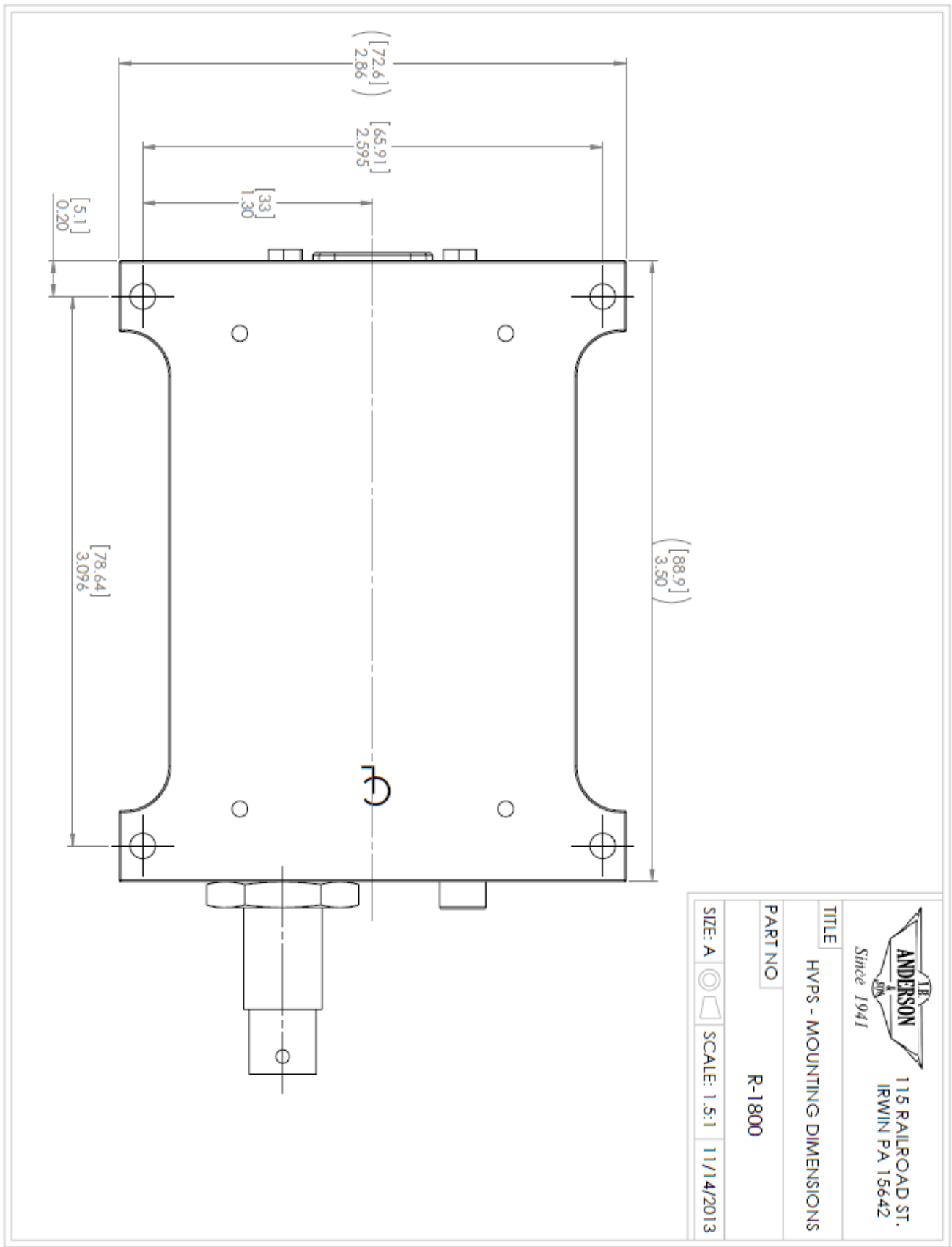


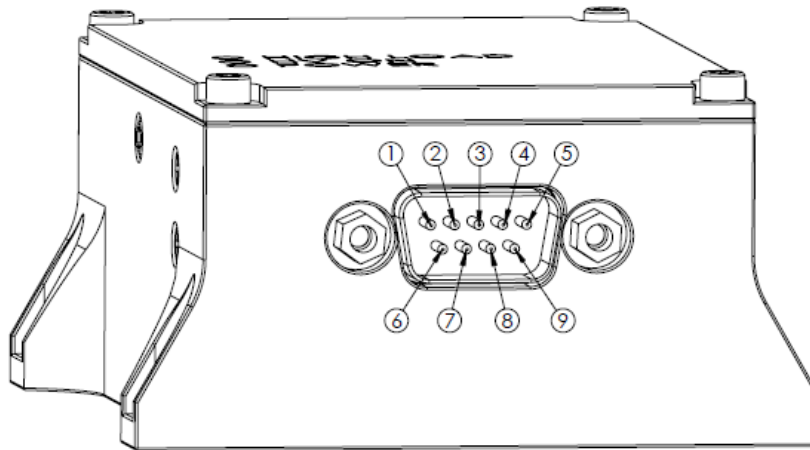
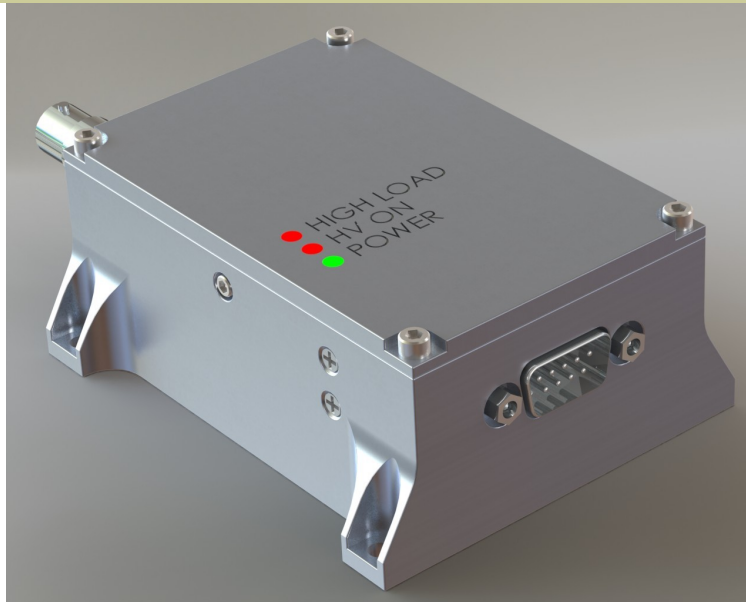
HIGH LOAD LED (RED):  
ILLUMINATES WHEN OUTPUT CURRENT REACHES A  
VALUE OF 1mA

HV ON LED (RED):  
ILLUMINATES WHEN SAFETY INTERLOCK  
HAS BEEN TIED TO GROUND AND INDICATES THAT  
HIGH VOLTAGE IS PRESENT AT OUTPUT CONNECTOR

POWER ON LED (GREEN):  
ILLUMINATES WHEN INPUT POWER IS APPLIED

	
115 RAILROAD ST. IRWIN PA 15642	
TITLE	HVPS - LED OPERATION
PART NO	R-1800
SIZE: A	SCALE: 1.5:1
	11/14/2013





NOTE: \*1 NO CONNECTION SHOULD BE MADE TO PINS LABELED N/C

\*2 IF NOT USING ION PUMP WITH INTEGRAL HV INTERLOCK, PINS 2/4 MUST BE SHORTED TO ENABLE HIGH VOLTAGE [DO NOT CONNECT EITHER PIN 2 OR 4 TO GROUND]

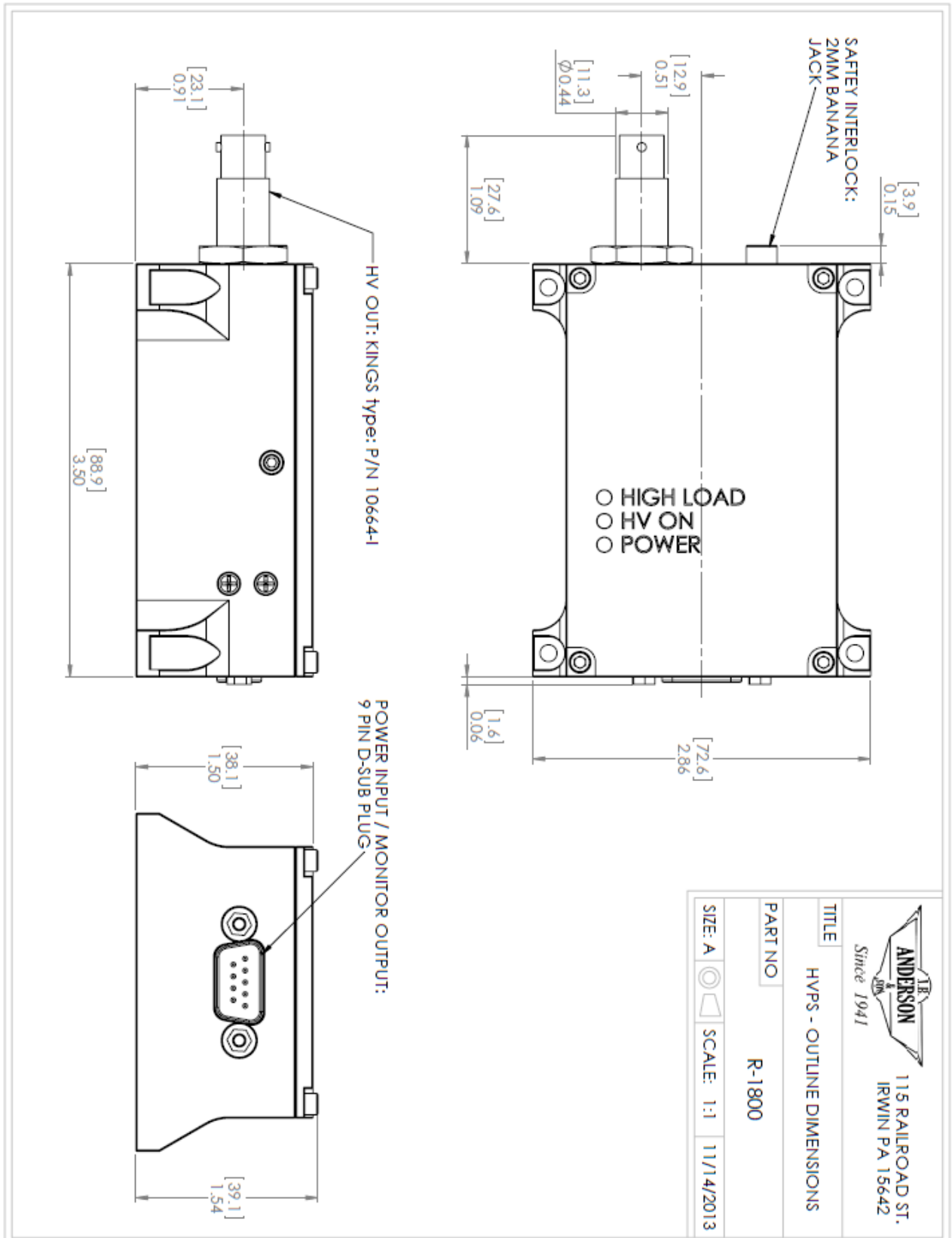
**J.B. ANDERSON**  
Since 1941

115 RAILROAD ST.  
IRWIN PA 15642

<b>TITLE</b>	HVPS - I/O CONNECTIONS		
<b>PART NO</b>	R-1800		
<b>SIZE: A</b>		<b>SCALE:2:1</b>	11/14/2013

PIN	FUNCTION
1	N/C *1
2	Remote High Voltage Enable *2
3	Output current monitor 0-5 Vdc (Referenced to ground)
4	Remote High Voltage Enable *2
5	N/C *1
6	12Vdc ( $\pm 0.05V$ ) INPUT
7	GND
8	Balanced output current monitor [ - ] 0-10Vdc
9	Balanced output current monitor [ + ] 0-10Vdc

### HVPS-SP DIMENSIONS





## Warranty Information

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J.B. Anderson & Son, Inc. warrants all commercial MODION® and HVPS systems to be free from defects in materials and workmanship for a period of twelve (12) months from date of shipment to customer when used in accordance with the accompanying instructions. All obligations of J.B. Anderson & Son, Inc. under this warranty shall cease in the event of abuse, alteration, misuse, improper installation or neglect of equipment. Reasonable care must be used to avoid hazards. J.B. Anderson & Son, Inc. expressly disclaims responsibility for loss or damage caused by use of the MODION® or HVPS other than in accordance with proper operating procedures and conditions.

J.B. Anderson & Son, Inc.'s obligation under this warranty is limited to repair or replacement of the MODION® or HVPS, at J.B. Anderson & Son, Inc.'s option. In no event shall J.B. Anderson & Son, Inc. be liable for any special, indirect, incidental or consequential damages.

J.B. Anderson & Son, Inc. makes no warranty of merchantability or fitness for any purpose, and no other warranty, oral or written, express or implied, except as specifically set forth in this limited warranty. No J.B. Anderson & Son, Inc. representative or distributor has any authority of power to alter or extend this limited warranty.

If the customer believes that a defect covered by this limited warranty exists, the customer must return the MODION® or HVPS to J.B. Anderson & Son, Inc., postage prepaid, along with a description of the problem and proof of purchase, and contact information.



*Since 1941*

J.B. Anderson & Son, Inc.

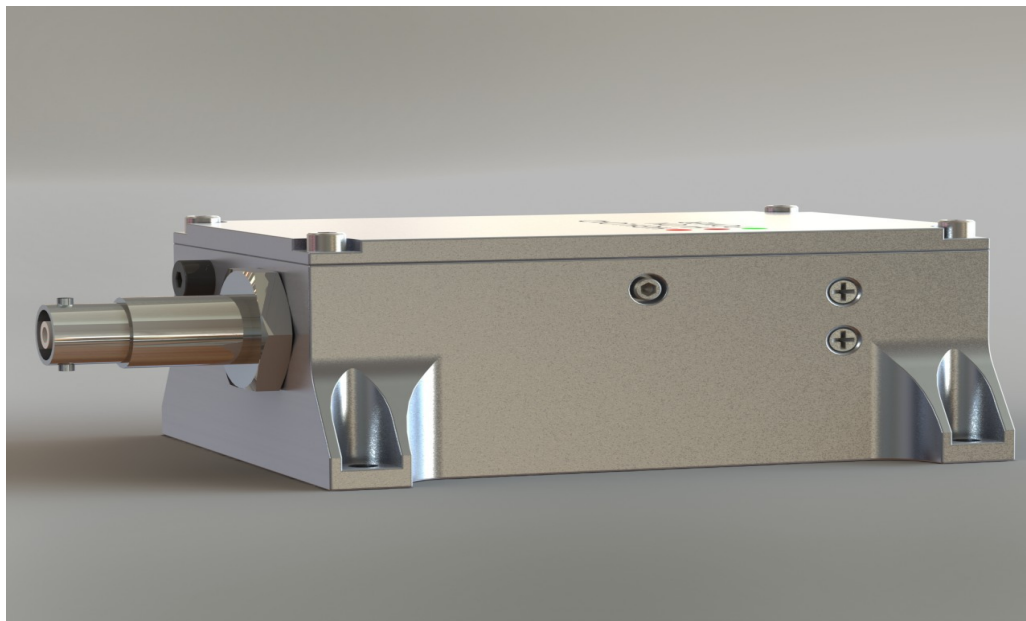
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*J.B. Anderson & Son, Inc. has been providing innovative manufacturing solutions since 1941. We manufacture commercial and custom MODION® ion pumps, power supplies, and TVC thermal vacuum chambers. In addition to our vacuum product lines, JBA is a full service manufacturing and design company, producing machined and welded parts, as well as mechanical assemblies to customer specification.*

**J.B. Anderson & Son, Inc. HVPS R-1800, for remotely powering and controlling MODION® Ion Pumps**



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