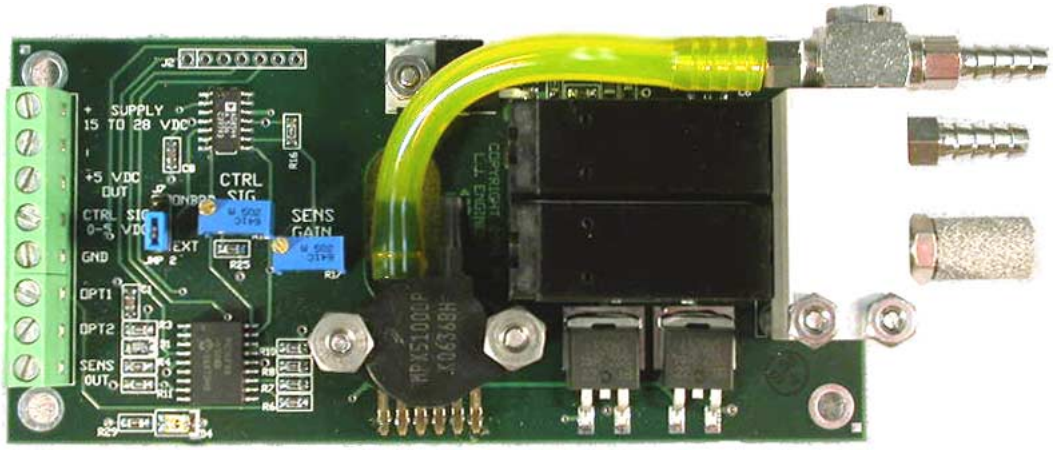
Model 487 Electronic Vacuum Regulator (Self-Relieving)



APPLICATION

The Model 487 Electronic Vacuum Regulator is designed to accept an analog control signal input for vacuum setpoint adjustment. The analog control signal can be supplied from the user's control system or an auxiliary potentiometer, or the on-board multi-turn potentiometer. Two pressure sensor options are available which allow a user the choice of operating vacuum range of up to either 3 in Hg or 29.5 in Hg. Both sensors are differential pressure type which typically references vacuum relative to ambient atmospheric pressure. Alternatively the sensor can be connected via hose to some another pressure of interest other than atmosphere. Referencing atmospheric pressure allows the regulated vacuum level to follow any change in the atmospheric pressure, which changes with weather conditions and changes in elevation. Atmospheric pressure referencing is useful in vacuum clamping, part handling, vacuum bagging, and other low differential pressure applications which are sensitive to changes in atmospheric pressure. The regulator is a self-relieving design, which means that it will vent excess vacuum to reach the setpoint when the control signal is reduced.

FEATURES

Model 487 utilizes a differential pressure sensor so that the unit can be configured to regulate vacuum or pressure by installing hose connections to either a vacuum or pressure source along with the appropriate sensor port connection.

Scalable pressure sensor range allows maximum control resolution at vacuum or pressure ranges that are less than the full scale sensor range.

Analog output of vacuum or pressure sensor reading.

Two option port connections can be factory programmed for user desired control interrupts or alternate control functions or different modes of operation.

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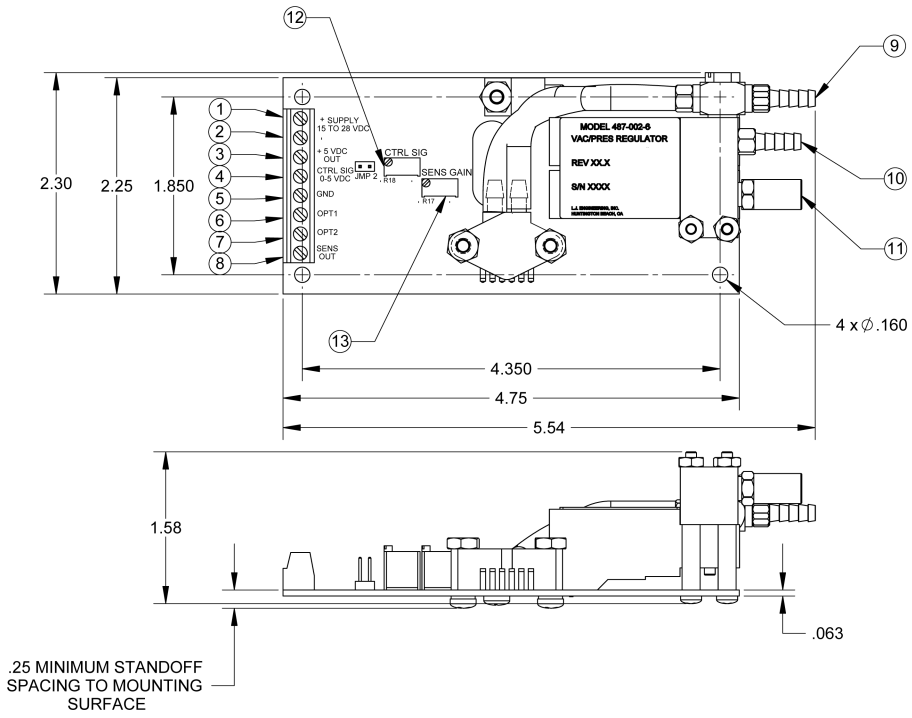

NOTES:

1. POSITIVE SUPPLY VOLTAGE 15 TO 28 VDC, MINIMUM CURRENT 250 mA.
2. GROUND, SUPPLY VOLTAGE.
3. +5 VDC OUTPUT FOR EXTERNAL POTENTIOMETER SOURCE.
4. CONTROL SIGNAL INPUT, 0 TO 5 VDC.
5. SIGNAL GROUND.
6. OPTIONAL INPUT/OUTPUT 1.
7. OPTIONAL INPUT/OUTPUT 2.
8. PRESSURE SENSOR OUTPUT, 0 TO 5 VDC.
9. REGULATED VACUUM OUT. USE .125 IN ID HOSE.
10. VACUUM IN. USE .125 IN ID HOSE.
11. DUMP VALVE FILTER/MUFFLER.
12. ON BOARD CONTROL SIGNAL POTENTIOMETER. TURN SCREW TO ADJUST VACUUM SET POINT
13. SENSOR GAIN. TURN SCREW TO ADJUST VACUUM RANGE.

SPECIFICATIONS

Vacuum/Pressure Range:	XXX -001 sensor 0 to 3 in Hg (41 in water) XXX -002 sensor 0 to 29.5 in Hg (749 mm Hg)
Flow Capacity:	Y -1 valve size, 5 SCFH (2.3 l/min) open flow 0.01 in orifice dia. Y -6 valve size, 25 SCFH (11.5 l/min) open flow 0.05 in orifice dia.
Part Number:	487-XXX-Y (fill in XXX and Y value for sensor and valve configuration desired)
Resolution:	Approximately 1 part in 1,000 of full scale span
Port Size:	1/8-in hose barb connections
Power Supply:	15 to 26 VDC, 180 mA maximum current
Analog Control Signal:	0-5 VDC
Weight:	0.34 pounds (155 g)