

Model 484 Electronic Vacuum Regulator



APPLICATION

The Model 484 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 other pressure of interest other than atmosphere. Referencing atmospheric pressure allows the regulated vacuum level will vary by the same amount as 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 utilizes a proportional valve to achieve very fine adjustment of the vacuum setting. The design is non-relieving, which means that excess vacuum will have to be vented if no leakage occurs in the system down stream of the regulator to release the otherwise trapped vacuum when the control signal is reduced.

FEATURES

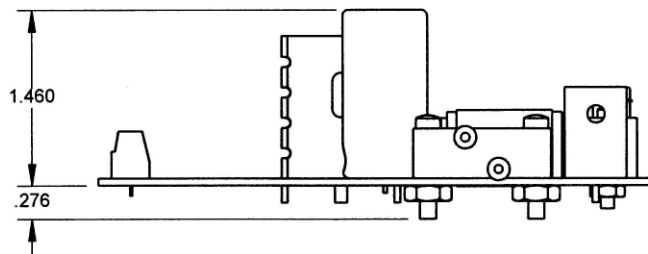
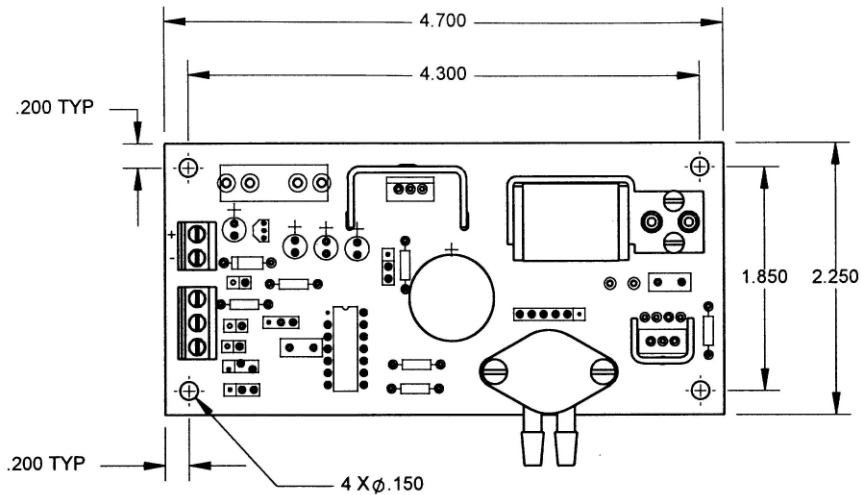
Model 487 utilizes a differential pressure sensor so that the unit can be configured to regulate vacuum or pressure by installing hose connections to either a vacuum or pressure source along with the appropriate sensor port connection.

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

Extremely fine vacuum or pressure resolution is possible when controlled with a multi-turn potentiometer or precision analog voltage source.

Jumper selectable control signal input choice: On-board multi-turn potentiometer, regulated 5-volt source for customer supplied potentiometer, or analog signal input.

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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, 2.5 SCFH (1.1 l/min) open flow 0.01 in orifice dia. Y -4 valve size, 12 SCFH (5.6 l/min) open flow 0.04 in orifice dia. Y -6 valve size, 25 SCFH (11.5 l/min) open flow 0.065 in orifice dia.
Part Number:	484-XXX-Y (fill in -XXX and -Y value for sensor and valve configuration desired)
Resolution:	In excess of 1 part in 10,000 of full scale span is possible with fine resolution control signal and using the minimum size valve to provide the required flow capacity.
Port Size:	1/8-in hose barb connections
Power Supply:	15 to 26 VDC, 180 mA maximum current
Analog Control Signal:	0-10 VDC
Weight:	0.27 pounds (121 g)