Introduction
This low-cost, dependable linear power supply accepts a 24 Vac input and outputs a regulated 24 Vdc to power devices such as gas detectors, RH or temperature transmitters and other loop-powered transducers. The device is full-wave rectified so that the AC supply and DC output do not share the same ground.

Features
- Low cost
- Regulated DC output
- Snap-track mounting
- Angled terminal block connections
- Full-wave rectified

Before Installation
Read these instructions carefully before installing and commissioning the power supply. Failure to follow these instructions may result in product damage.

Do not use in an explosive or hazardous environment, with combustible or flammable gases, as a safety or emergency stop device or in any other application where failure of the product could result in personal injury. Take electrostatic discharge precautions during installation and do not exceed the device ratings.

Mounting
The power supply is supplied with snap-track for simple mounting. If necessary, use only fingers to remove the pcb from the snap-track, do not pry on the pcb with tools. Do not flex the pcb during removal or installation. Slide the pcb out of the snap-track or push against one side of the snap-track and lift the pcb out.

The device may be mounted in any position but is typically installed in the back of a cabinet with the connectors located at the top and bottom. The input/output connectors are angled type for easy access.

Ensure any metallic mounting hardware does not contact the underside of the pcb. Avoid mounting in areas where the transducer is exposed to vibrations or rapid temperature changes.

Wiring
Deactivate the 24 Vac power supply until all connections are made to the device to prevent electrical shock or equipment damage. Follow proper electrostatic discharge (ESD) handling procedures when installing the device or equipment damage may occur.

Use 22 AWG shielded wiring for all connections and do not locate the device wires in the same conduit with wiring used to supply inductive loads such as motors.

Make all connections in accordance with national and local codes.

Connect the 24 Vac power supply to the two **AC** input terminals. The 24 Vac input should come from an isolated 24 Vac transformer. The 24 Vdc output is available on the + and – terminals.

A grounded DC output minus terminal and a grounded secondary of the 24 Vac input transformer will damage the unit.

Because this power supply incorporates a full wave rectifier the input and output do not share a common ground point. If this will be a problem, either remove the ground from the transformer secondary or use a separate un-grounded transformer.

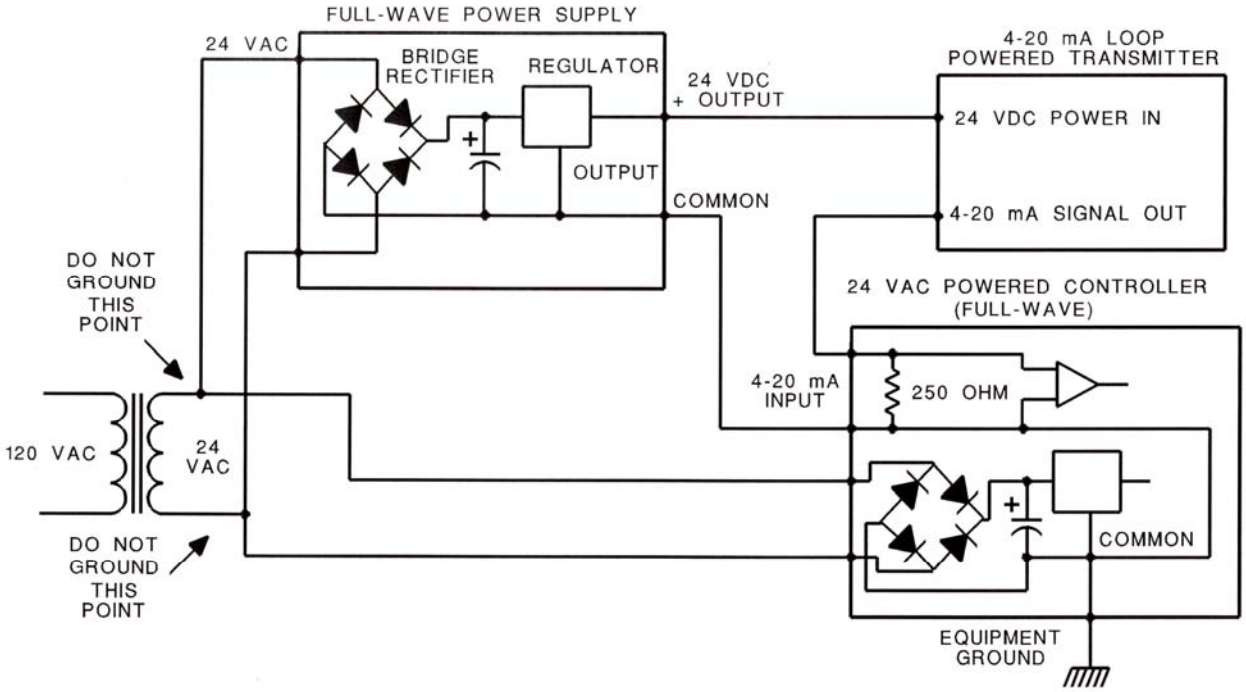
Ensure the supplied power is within the device ratings as shown in the *Specifications* section of this document. Power supply voltages outside the ratings may cause over-heating, device damage or un-reliable operation.

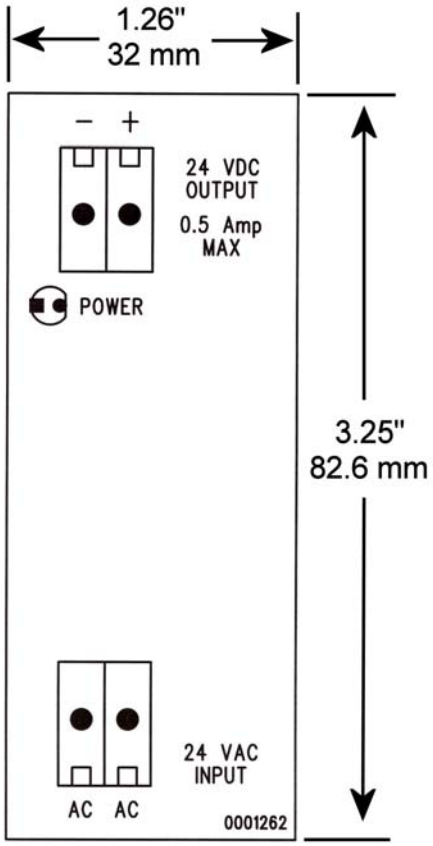
Ensure the 24 Vdc output is within the device output ratings. The device will supply a fixed 24 Vdc at 0.5 Amps maximum. The output current must be reduced for higher operating temperatures (above 40 °C).

This device uses a thermally protected regulator and as such will limit the current to a safe level. If the thermal limit of the device is exceeded, the output will shut down to protect the unit.

Specifications

Input Voltage	24 Vac ± 10%, 50/60 Hz
Output Voltage	24 Vdc (full wave rectified)
Output Current	0.5 amp maximum (0-40 °C) 0.35 amp max (40-50 °C)
Regulation	1% at full-rated current
Overload Protection	Regulated thermal shutdown
Operating Temperature	32-122 °F (0-50 °C)
Operating Humidity	5-95 %RH non-condensing
Mounting	Snap track included
Dimensions	3.25” L x 1.26” W x 1.1” H (82.6 x 32 x 28 mm)
Weight	50 gm (1.76 oz)
Compliance	RoHS


FULL-WAVE POWER SUPPLY
24 VAC
BRIDGE RECTIFIER
REGULATOR
24 VDC + OUTPUT
OUTPUT
COMMON
4-20 mA LOOP POWERED TRANSMITTER
24 VDC POWER IN
4-20 mA SIGNAL OUT
DO NOT GROUND THIS POINT
24 VAC POWERED CONTROLLER (FULL-WAVE)
4-20 mA INPUT
250 OHM
120 VAC
24 VAC
COMMON
DO NOT GROUND THIS POINT
EQUIPMENT GROUND


1.26"
32 mm
− +
24 VDC OUTPUT
0.5 Amp MAX
POWER
3.25"
82.6 mm
24 VAC INPUT
AC AC
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