

- **REGULATED 24 VDC OUTPUT**
- **UNREGULATED 28 VDC OUTPUT**
- **CURRENT LIMITED TO 27mA**
- **COMPACT SIZE**
- **LOW RIPPLE, LESS THAN 2mV P-P**



DESCRIPTION

The Model 18-LPS is a compact 24 volt power supply designed specifically to power a single 2-wire transmitter in a 4 to 20 mA instrument loop. This power supply provides a clean, regulated 24 volt output as well as an unregulated 28 volt output that can be used to drive the loop when higher voltages are required and regulation is not important. The output current is limited to 27 mA to protect the loop in the event of improper wiring or transmitter failure and the single loop design enables each loop to be independently isolated from other loops.

The 18-LPS is connected in series with a 2-wire field transmitter and the receiving instrument (the load) as shown in figure 1. Separate terminals are provided to connect to both the regulated and the unregulated output voltages.

The 18-LPS is easily surface mounted or it may be installed on a SNAPTRACK[®] or by using the DIN rail mounting option. Eight units may be installed per each foot of track, providing high density mounting.

Powered by 115 VAC, 50/60 Hz the 18-LPS features output current limit, thermal overload protection, split bobbin transformer for isolation and only 2 mV peak to peak of ripple on the regulated output.

For ambient temperatures down to -40°F, a low temperature version, Model 18-LPS-T is available.

SPECIFICATIONS

INPUT

Working Voltage (Standard)	105 to 125 VAC
Working Voltage (Option E-71)	210 to 250 VAC
Working Frequency	50 to 60 Hz
Power Drain	3 VA
Transformer Isolation	2500 VRMS Hipot

OUTPUT

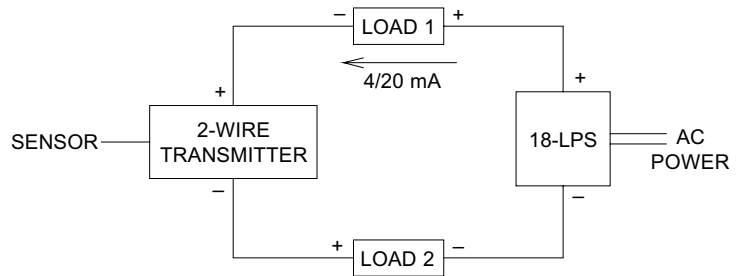
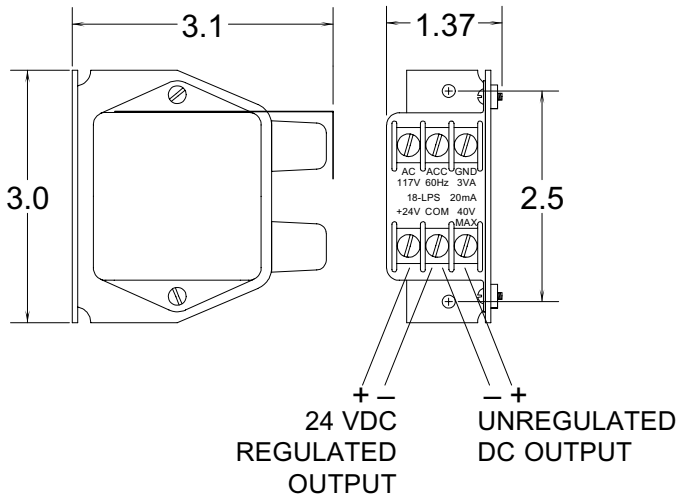
Voltage, Regulated	24 VDC \pm 1 VDC
Voltage, Unregulated (115 V Line)	28 to 39 VDC, Depending on Load
Voltage, Unregulated (105 to 125 V Line)	25 to 43 VDC, Depending on Load
Rated Load	20 Milliamps.
Load Regulation (0 to 20 mA)	Δ 12 mV, Typ.; Δ 52 mV, Max.
Line Regulation (105 to 125 VAC)	Δ 0.6 mV per volt (change in line), Typ.
	Δ 2.5 mV per volt (change in line), Max
Current Limit	27mA, \pm 1.5 mA

TEMPERATURE

Temperature Range (18-LPS)	0 to 85°C
Temperature Range (18-LPS-T)	-40 to 85°C
Temperature Effect	2 mV per °C, Typ.

MOUNTING

Standard	Surface or 3 inch SNAPTRACK
Option -M31D	DIN Rail Mount



NOTE: LOADS 1 AND/OR 2 MAY BE SELECTED OPTIONALLY.

FIG. 1 Typical Wiring, 2-Wire, 24VDC Instrument Loop