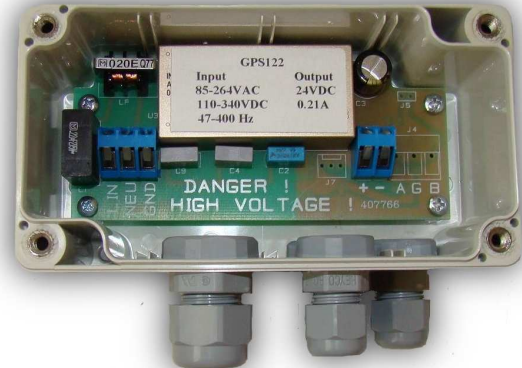




FEATURES

- UNIVERSAL INPUT 90-264 VAC, 47- 440 Hz
- HIGH SURGE / TRANSIENTS AND EMI INPUT PROTECTION
- HIGH ISOLATION
- HIGH QUALITY OUTPUT 24 VDC +/- 1%, 0.42 A
- LESS THAN 50 mV_{pp} RIPPLE
- SHORT CIRCUIT OUTPUT PROTECTION
- OVER CURRENT OUTPUT PROTECTION
- 72% EFFICIENCY, SAVES POWER
- SMALL SIZE
- WEIGHT 59 g (2.1 oz)
- SCREW TERMINALS FOR WIRES 22-12 AWG (2.5 mm² max)



1. DESCRIPTION

The GPS123 is a regulated power supply with an universal input, very high regulation and isolation, high efficiency and very low ripple. It has surge and fast transients protection and very high EMI and noise immunity at the input, and overload and short circuit protection at the output. It can be mounted in the enclosure of GFC100/200 series flow computers thus saving space and reducing the cost. It can also be used as a stand-alone high quality power supply for many different devices. It can power both [GMAG100](#) magmeter and a GFC100/200 flow computer and provide a complete solution.

With its very low noise and ripple it is an excellent choice for powering high quality instrumentation and industrial control devices.

APPLICATIONS

- TO POWER [GMAG100](#), [GFC110](#), [GFC111](#) OR OTHER FLOW COMPUTERS / TOTALIZERS
- MOUNTABLE IN THE ENCLOSURE OF GFC100/200 SERIES FLOW COMPUTERS
- TO POWER OTHER DEVICES IN THE SAME ENCLOSURE
- TO BE USED AS A STAND ALONE POWER SUPPLY FOR OTHER EXTERNAL DEVICES

2. ABSOLUTE MAXIMUM RATINGS *

Operating temperature	-25 °C to +65 °C, at 50% load
Operating temperature	-25 °C to +50 °C, at 100% load
Maximum Input Voltage	264 VAC
Minimum Input Frequency	47 Hz
Maximum output current	0.42A DC, 25 °C

NOTICE: Stresses above those ratings may cause permanent damage to the device.

3. CHARACTERISTICS

Parameter	Conditions	Min	Typ	Max	Units
Input Voltage, AC		90		264	V AC
Input Frequency		47		440	Hz
Output Voltage	Input 115VAC, 60 Hz, 25 °C, output current 420 mA	23.76	24.00	24.24	V DC
Output Ripple	Input 115VAC, 60 Hz, 25 °C, output current 420 mA			50	mV _{pp}
Efficiency	Input 115VAC, 60 Hz, 25 °C, output current 420 mA		72		%

4. APPLICATION

4.1 MECHANICAL

Fig. 1 shows the dimensions of GPS123. The board is designed to be mounted into the enclosure of GFCxxx series flow computers / totalizers.

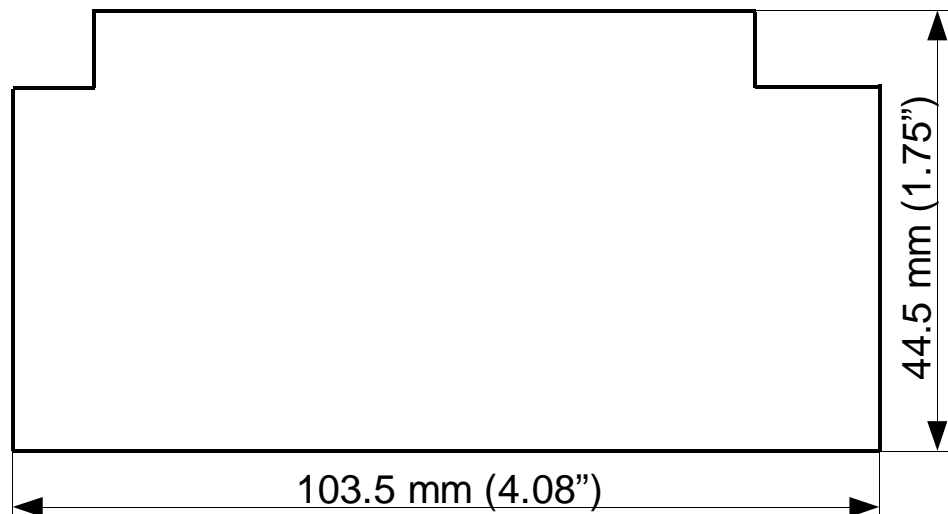


Fig. 1 Dimensions of GPS123

4.2 ELECTRICAL

The input voltage 90 -264 V AC has to be applied to the terminal J1.

**NOTE: For safety earth ground must be connected to the “GND” terminal !
Disconnect the high voltage before doing any work on GPS123 !**

The earth ground must be connected to the “GND” terminal in order to achieve the best performance of GPS123.

The output voltage is on terminal J2.

Fig. 2 shows the proper connections of the input and output voltage.

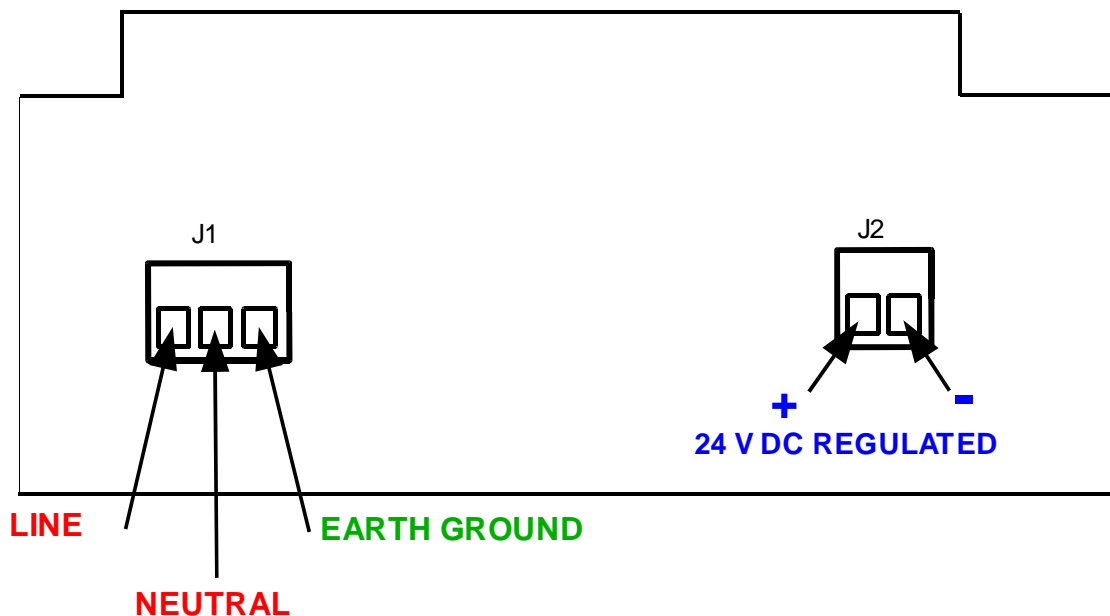


Fig. 2 Electrical connections to GPS123



5. ORDERING

For ordering please use the following G Instruments part numbers:

<i>Description</i>	<i>G Instruments PN</i>
GPS123 power supply board	30317
GPS123 mounted in a blind weather proof enclosure with 2 cable glands	30318



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