

Adjustable Voltage Power Supply AVo  
USER MANUAL

Rel. 01.00.0002  
(Hardware code: AVo)



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<sup>1</sup> With the exclusion of shipping costs for and from IPSES's development office.

**WARNING!**

**ELECTRICAL DEVICES COULD DAMAGE EQUIPMENT OR PROPERTY OR CAUSE PERSONAL INJURY**

This guide contains instructions and technical features of the Adjustable Voltage Power Supply AVo.

Read with attention before attempting to install.

It is the responsibility of the technician to undertake all the safety rules provided by the law during the installation and the use of this device.

For any information which is not contained in this guide, please contact:

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## REVISION HISTORY

### Manual revision history

Revision/ Date	Change description	Author
01.00.0000 July, 2013	First version Released	Mancuso C. Pizzocolo G.
01.00.0001 June, 2015	Update document layout	Bottaccioli M.
01.00.0002 August, 2016	Added ISO 9001:20015 logo	Bottaccioli M.

## GENERAL FEATURES

AVo is a device especially conceived to provide an adjustable voltage between 0V and -1,25V, with a maximum current up to 1 mA.

AVo is equipped with a 3.5 digit LCD display showing the output voltage.

A 10-turn potentiometer sets the voltage and assures precision and stability.

Besides, AVo is equipped with an interlock circuit which can be used to stop the power supply if the load is not correctly connected or the device is not correctly placed.

## FRONT PANEL



Picture 1: AVo front panel

### Elements present on the front panel:

1. 3.5 digit LCD display (Voltage output) showing the output voltage set by the user. This value may range approximately from 0V up to -1.250V.
2. 10-turn potentiometer (Adjust) to set the output voltage.
3. Yellow LED (Output on): when this led is lit, the power supply exit is enabled.
4. System power switch with indicative light (System power).

### CAUTION!

When the yellow LED "Output on" is lit, there is a voltage on the output connector and on the connected devices. Warning: this voltage will manages the HV module of the PMT that can have high voltage on so it could damage equipment or cause personal injury.

## REAR PANEL



Picture 2: Avo rear panel

### Elements present on the rear panel:

1. AC line input equipped with a fuse. The input voltage value will depend on the chosen model of power supply.
2. Yellow LED (Output on): when this led is lit, the power supply exit is enabled.
3. Output voltage (H.V. out) which the HV module must be connected to.
4. Interlock connector (Interlock H.V.): it will enable the power supply exit when it is in short circuit.

### CAUTION!

The output must be connected to a module of ThornLabs mod. PMM01: see the relevant manual for the connection diagram.



## INSTALLATION INSTRUCTIONS

**AVo** must be used and kept dry in cool conditions.

Before plugging AVo to the electric line, we strongly recommend to connect it to the load, so that the output connector will not touch accidentally anything. The interlock connector must be connected immediately after the connection of the HV module.

Before switching on the device, we recommend to completely turn the potentiometer (Adjust) anticlockwise, so that the unit will yield the minimum voltage.

After that, it is possible to switch on the device through the power switch: if all the connections have properly been executed, then the LCD display will show the output voltage value and the yellow LED "Output on" will light.



## TECHNICAL FEATURES

- **Input voltage:** 230Vac 50/60Hz (other voltage available on request)
- **Output voltage:** adjustable between 0V and -1.250V
- **Output current:** 1mA maximum
- **Output connector:** 2.5 mm Mono Plug
- **Range of operating temperature:** from 0 up to 40°C (from 32 up to 104°F)
- **Range of storage temperature:** from -20 up to +60°C (from -4 up to 140°F)
- **Activation interlock** for the high voltage output switch on.
- **Size:** about 200 x 100 x 130 mm (7.9 x 3.9 x 5.1 inches)

## MANTEINANCE

Wipe the outside of the device with a clean, dry cloth. Never use harsh or abrasive cleaners or organic solvents on the device or any of its parts.

### To clean the LCD display:

1. Blow gently on the LCD display to remove dust and dirt.
2. Moisten the LCD display by lightly breathing on it.
3. Wipe the LCD display gently with a soft, lint-free cloth or an untreated lens-cleaning tissue.

**Do not wipe the LCD display with chemically treated eyeglass lens tissue. It may scratch the screen.**

Always follow basic safety precautions. To avoid damaging your device, DO NOT expose it to moisture and extreme temperatures. DO NOT allow any chemicals to come into contact with the surface of AVo. NEVER disassemble or touch the inside of the device. For any maintenance problem, please contact IPSES Operations Office.

## OTHER AVAILABLE MODELS

IPSES can realize customized versions of power supply devices to answer to any client demands.

Particularly, it is possible to have adjustable power supply working with any power supply voltage, with positive or negative output voltage, with output current sensing and current display.

To get more news visit the website <http://www.ipses.com>.

## PRODUCT CODE

Code	Description
AVo	Negative adjustable voltage power supply (-1.250V, 1mA)
HiVo	Negative high voltage power supply (-1.995V, 2mA)
HiVo+2000	Positive high voltage power supply (+1.995V, 2mA)
Interlock Cable	Interlock Cable
H.V. Cable	H.V. Cable

## CONTACTS

**IPSES S.r.l.** conceives, projects and markets electronic and scientific instruments. The customized planning of our devices allows us to answer specific necessities for customers asking for embedded systems. **IPSES** clients enjoy access to a dedicated project engineering team, available as needed.

Our pool consists of highly competent professionals whose experience in this field is extremely strong. Thanks to constant updating and technical development, **IPSES** is a leading company, combining the dynamism of a young group into the competence and reliability of a qualified staff.

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## SUPPORT INFORMATION

The customer is at liberty to contact the relevant engineer at IPSES S.r.l. directly.

Telephone	:	(+39) 02 39449519 (+39) 02 320629547
Fax	:	(+39) 02 700403170
Email	:	support@ipses.com

## PROBLEM REPORT

The next page is a standard template used for reporting system problems. It can be copied and send as a fax. Alternative bugs may be reported by emails, in this case please insure that the mail contains similar information listed in the *Engineering Problem Report* form.

## ENGINEERING PROBLEM REPORT

### Problem describer

Name		<b>IPSES s.r.l.</b> <b>Via Suor Lazzarotto, 10</b> <b>Cesate (MI)</b> <b>Italy</b> <b>Fax (+39) 02 700403170</b> <b>e-mail <a href="mailto:support@ipses.com">support@ipses.com</a></b>
Company		
Date	Tel.	

### Product

Name	Version	Serial No.
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### Report Type (bug, change request or technical problem)

Major bug	<input type="checkbox"/>	Urgency:	
Minor bug	<input type="checkbox"/>	High	<input type="checkbox"/>
Change request	<input type="checkbox"/>	Medium	<input type="checkbox"/>
Technical problem	<input type="checkbox"/>	Low	<input type="checkbox"/>

### Problem Description

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### Reproduction of Problem

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### IPSES s.r.l. Action notes

Received by	Date	Report No.	Action
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(Product code AVo Rel. 01.00.0002)

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