

# Power supply module

User manual  
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# Table of Contents

<b>1 Warning - Read this first</b>	<b>4</b>
<b>2 Introduction</b>	<b>5</b>
1 Usage .....	5
<b>3 Quick start</b>	<b>6</b>
<b>4 Hardware installation</b>	<b>7</b>
<b>5 Electrical installation</b>	<b>8</b>
<b>6 Specifications</b>	<b>9</b>

# 1 Warning - Read this first

	<p>Read and understand user manuals of all equipment involved before commencing installation or use.</p>
	<p>All electrical installations to be carried out by authorized electrical installation engineers only.</p>
	<p><b>WARNING:</b> 100...250 VAC mains cables are present in the housing. Do not touch the cables and the power supply when mains is applied. Keep the housing closed during normal operation. Check the cable glands on water tightness.</p>
	<p>Make sure that the ambient temperature does not exceed the limits. Overheating might cause temporary shut down or permanent failure of the hardware.</p>
	<p><b>Feedback leads to product improvement.</b> Please share your experience with us, as we are continuously improving our products in our commitment to quality, reliability and ease of use. Let us know via <a href="mailto:sales@vpinstruments.com">sales@vpinstruments.com</a>!</p>

## 2 Introduction

Thank you for choosing VPIstruments!

This power supply module has been developed for a permanent installation of the VPFlowScope flow meter. This manual is written for:

- VPA.0030.100 Power supply module

**Basic components:**

- Enclosure
- Circuit breaker
- Power supply
- Fuse
- Screw terminal

### 2.1 Usage

This power supply can be used to power up any device at 24V 1A. However it has been developed for the VPFlowScope. The VPFlowScope uses between 300 and 500 mA depending on type and mode. Therefore a maximum of 2 VPFlowScopes can be connected to this power supply.

This power supply is intended for permanent installation. For temporarily installation a power adapter can also be used.

## 3 Quick start

### **Step 1. Mount the enclosure**

Unpack the box. Open the enclosure with the screwdriver. Check if all DIN Rail mounted equipment is still in place. If not, please fix the modules on the DIN Rail. Installation by certified professionals only. Mount the enclosure on a wall and establish the required mains power connection. Read more about [hardware installation here](#).

### **Step 2. Connect the equipment**

Connect the power wires to the screw terminal. The labels indicate DC+ and DC-. [See electrical installation](#).

### **Step 3. Connect mains**

Connect the mains cable to the circuit breaker. Make sure that mains power has been switched off and that the circuit breaker is in the off position (green)

### **Step 4. Apply power**

Enable the circuit breaker to power up the equipment.

## 4 Hardware installation



**Warning:** Installation involves connection to mains. Installation of field cables requires indepth knowledge and skills. Therefore all steps that involve electrical installation should be carried out by certified installation professionals.



Make sure that the ambient temperature does not exceed the limits of the cabinet (**min:** -20 deg C | -4 deg F **max:** 40 deg C | 104 deg F). Higher ambient temperature requires cabinet cooling.

**Each cabinet consists of the following components:**

1. Circuit breaker
2. Main power supply, 24 VDC, 1 Ampere
3. 1A fuse
4. 24VDC screw terminals



### Installation procedure

1. Remove the four screws and lift the cover
2. Take out the cable glands and mount them into the 2 screw holes
3. Hold the box at the preferred position on the wall and mark the four installation holes with a pencil
4. Lay the box aside and drill the marked points
5. Insert a jack in each hole
6. Hold the box in front of the drilled holes and screw it through the connection holes to the wall

## 5 Electrical installation

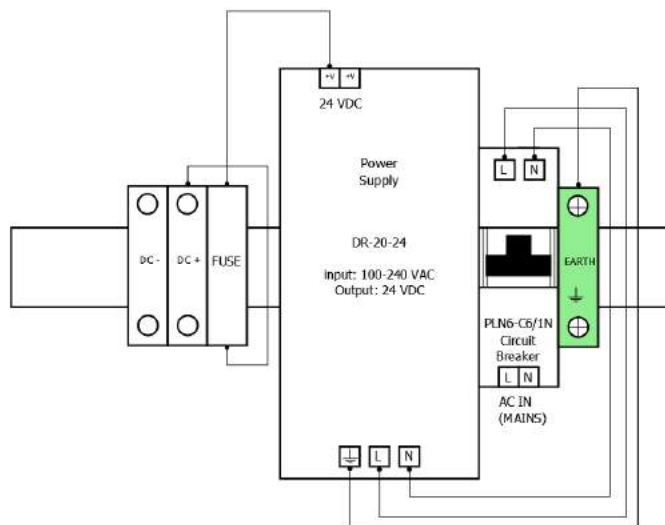


**Warning:** Installation involves connection to mains. Installation of field cables requires indepth knowledge and skills. Therefore all steps that involve electrical installation should be carried out by certified installation professionals.



Check if the earth wire (field ground) is free of interference and potential dangerous high voltage. Make sure the circuit breaker is in off position. Then install the L, N and Earth wire. The L, N and Earth may have a different color, depending on your local legislation and directives for medium voltage systems.

### Scheme



### Installation procedure

1. Connect the mains cable to the circuit breaker
2. Connect the equipment to the screw terminal block
3. Switch on the circuit breaker to apply power to the sensors



## 6 Specifications



**Please always check the label of your product for the specifications.**

Specifications are subject to change as we are continuously improving our products. Please contact us to obtain the latest specification sheet.

### **Mechanical & Environmental**

Construction: IP65 ABS enclosure  
Temperature: -20 ~ 40 deg C | -4 ~ 104 deg F  
Weight: 0.9 kg | 1.98 lbs  
Outer dimensions: 160 x 120 x 140 mm | 6.30" x 4.72" x 5.51"

### **Electrical**

Supply input (mains) 110 - 250 VAC, 50-60Hz  
Supply output 24VDC 100 Watt  
Supply output fuse 1.0A

## Notes

## Notes

## EASY INSIGHT IN ENERGY FLOWS

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