

Proportional – Amplifier

PV2

Characteristics:

- **Control current max. 6A / <40VDC**
- **200Hz or 5kHz PWM – frequency**
- **Output current adjustable**
- **Offset adjustable**
- **Voltage- or current input**
- **Mountable on 35mm cap rail TS35**
- **Clear terminal labeling**
- **Shape 17,5mm, super low**
- **High reliability, 5 years warranty**

Description:

The devices of the proportional amplifier series PV2 have been developed for controlling valves, clutches, brakes and similar inductive loads. Depending on the application there is the choice between two PWM frequencies (200Hz or 5 kHz). The driving is done via analog norm signals. Thereby for the user is each one voltage input 0...10V (terminal 4) or a current input 0(4)...20mA (terminal 5) at disposal. The output current is proportional to the input value and is adjustable with potentiometer (V) in the range of 0...100% of the unit rated current. An offset shift is also possible by using potentiometer (0).

Adjustment to a4...20mA input signal as follows:

- Connect 0mA on terminal (5) and by using potentiometer "0" set the output current to zero.
- Increase the input value to 16mA and level out the output current to the desired rated current by using potentiometer "V".
- Now connect terminal (1) with terminal (4).
- Connect input with 4mA and level out the output current to zero.
- Connect input with 20mA and check the end range.
- Check the adjustment again at 4mA resp. 20mA and adjust again if necessary.

Application:

Controlling of proportional valves

Controlling of hysteresis brakes, hysteresis clutches

All kinds of inductive loads

Order code:

Regulated current:

Clock frequency:

	PV2-	-		
1A	1		200Hz	4
3A	3		5 kHz	5
6A	6			

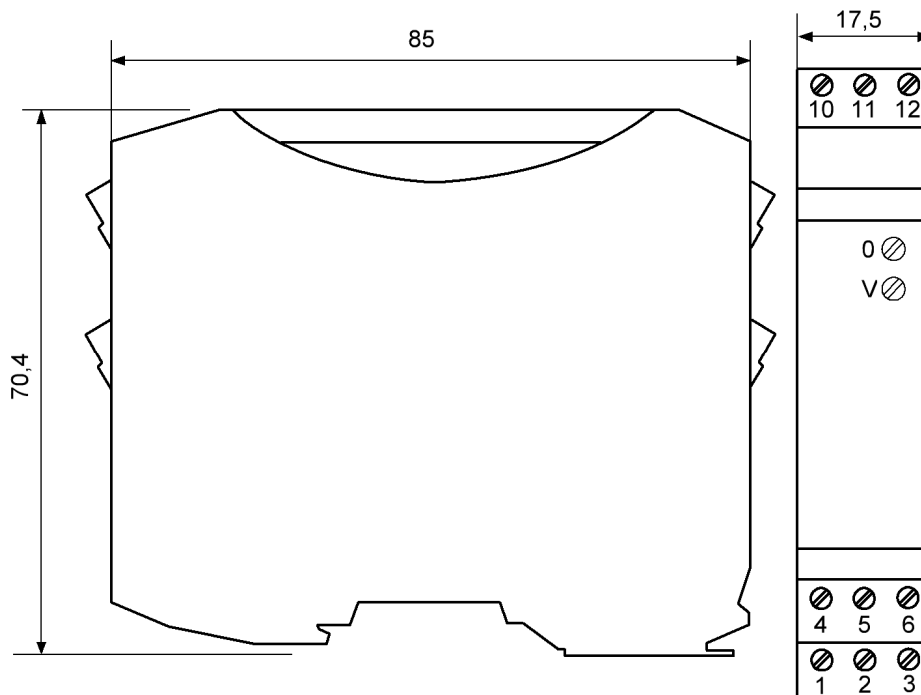
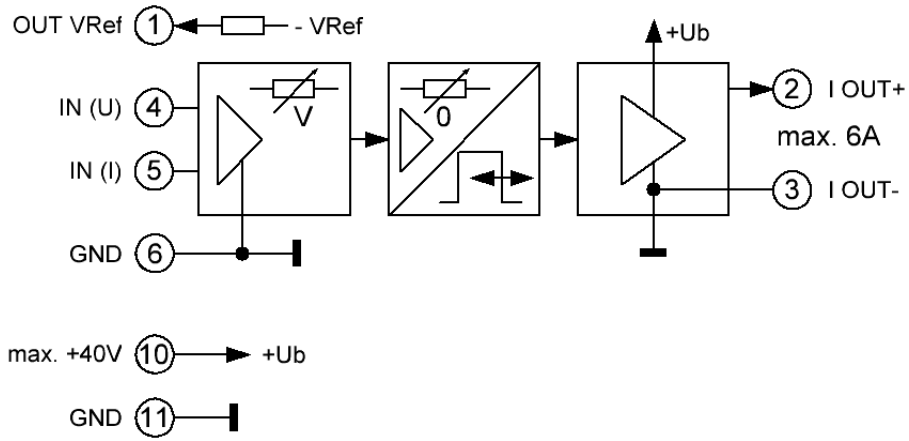
Order example:

Promotional

amplifier PV2:

Regulated current = 1A / clock frequency = 5 kHz

Order-No: PV2-1-5



Technical Data

Auxiliary power:

Supply voltage	:	19, 2...40VDC
Power consumption	:	< 1,5VA + load

Load output:

Voltage output	:	Ub – 10%	(cl.2 + cl.3)
Current output	:	1A / 3A / 6A je depending on type	
Kind of load	:	Inductive Last	
Clock frequency	:	200 Hz/ 5kHz je depending on type	

Inputs:

Voltage input	:	0...10V / 94KΩ / overload max. 50V	(cl.4)
Current input	:	0...20mA (4...20mA) / load 100 Ω / overload max. 100mA	(cl.5)

Adjustment:

Output current	:	0...105% adjustable with potentiometer V
Offset	:	-5...+20% adjustable with potentiometer 0

Accuracy:

Linearity error	:	< 0, 75%
Temperature coefficient	:	<100ppm / K
Load regulation	:	0, 3% of end value

General data:

Operating temperature	:	0...50°C
Storage temperature	:	-25...+85°C, condensation before putting into operation is not allowed
MTBF	:	90 years Mean Time Between Failures – according to EN 61709 (SN 29500). Requirements: Stationary operation in clean rooms, average ambient temperature 40 ° C, no forced ventilation, continuous operation
CE conformity	:	EN 61326-1, EN 61000-4-2/3*/4/5/6*, EN 61000-6-4 * during measurements small deviations are possible

Body:

Dimension	:	17,5mm adjoin body, 17,5x70,4x90,5mm (with terminals)
Material	:	PA / V0
Protection category	:	IP20
Connection	:	M3-screw-type terminal 0, 14 - 2,5mm², flexible or inflexible
Fixing	:	Snap-on mounting for norm rail TS35
Weight	:	73 g

Note on safety:



Disconnect the power supply before attempting to open the unit.

During the operation of this module it is possible that parts of the module, even there is extra-low voltage, (for example shunt measurement) are under dangerous voltage! Therefore a non-observance of this caution may cause damage of property or physical injury.

Only trained qualified personnel should install or operate the unit. Before installation the qualified personnel should read the documentation and should familiarize themselves with the unit.

If there is visible damage to the body of the unit it should be immediately replaced and not put into operation.



Please ensure that there is a sufficient prevention against electrostatic discharge during installation of the unit.

Installation Information:

Pay attention and make sure the unit is far away from mounted sources that may disturb the device such as magnetic coils, transformers, frequency converters etc.

Wiring advise:

Use only shielded cables. The shield is to be connected extensively to ground. Do not mix power- and signal-wires/cables in the same cable tray.

Limited guarantee:

The LEG Industrie-Elektronik GmbH warranted that the product does not have any material or processing defects in a period of 5 years after date of delivery.

It is up to the choice of LEG to repair or to exchange an inoperative unit.

Subsequent damages or any claim for indemnification above the functionality of the unit are excluded.

This limited warranty is only valid if ...

1. the product was installed and put into operation according to the LEG operation documentation;
2. the technical configuration of the power supply was abided;
3. the product was not used for unintended purposes;
4. there were no unauthorized modifications or manipulations, misuse or repairs without previous agreement from LEG .

Our Terms of Trade are based on the "General Conditions for the supply of products and services of the Electrical and Electronics Industry" including the "Complementary Clause: Extended Reservation of Property" of the ZVEI e.V. (German Association of Electrical Manufacturers).

Miscellaneous:

We expressly reserve the right, without previous notice, to correct errors contained in any data of this information brochure, and to make alterations to the program and technical modifications.