

Power amplifier for servo valves

SV100

Characteristics:

- Output current up to $\pm 100\text{mA}$
- For servo valves
- Offset and gain are adjustable
- Dither- frequency and dither-amplitude adjustable
- Power supply 24VDC
- Mountable on 35mm cap rail TS35
- Clear terminal labeling
- Narrow design
- Shape 17,5mm, super low
- High reliability, 5 years warranty



Description:

The devices of the servo amplifier series SV100 have been developed for controlling servo-valves up to 100mA. The necessary parameters such as zero point „0“, output current I“, Dither frequency “F“and Dither amplitude “A “can be set by a 20-turn spindle-operated potentiometer.

An analogue signal $0 \dots \pm 10\text{V}$, $0 \dots \pm 20\text{mA}$ or $4 \dots 20\text{mA}$ is set to a linear output current. The maximum current through the load is set by potentiometer „I“. To avoid a mechanical hang up of the valves the output current can be heterodyned with a dither signal, which is adjustable in frequency and amplitude.

Application:

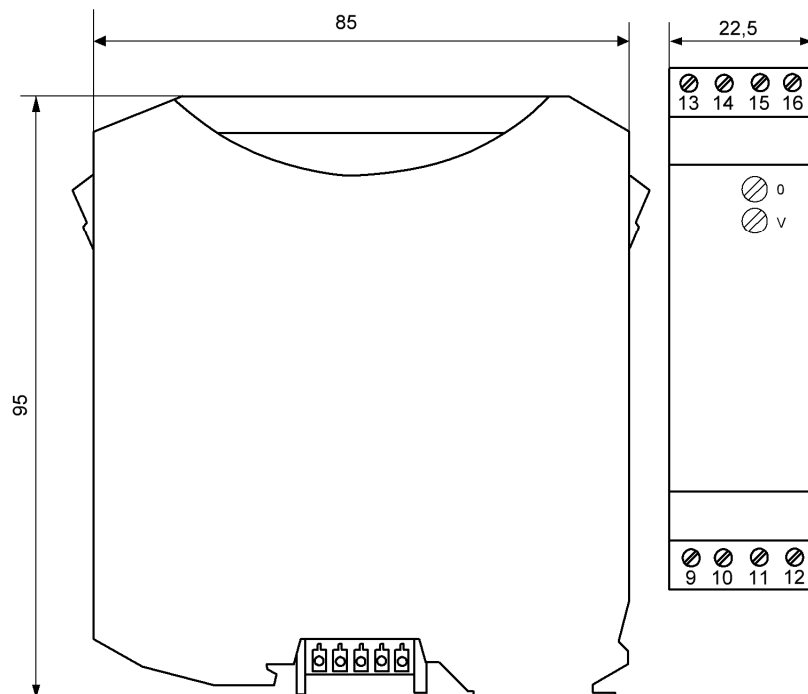
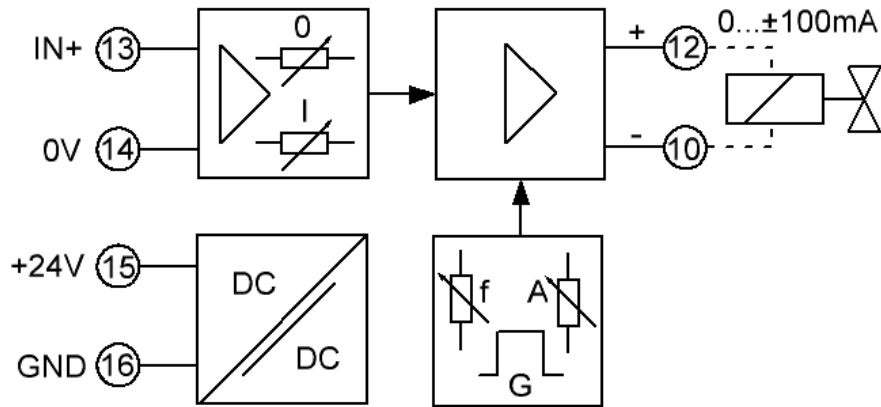
Servo valve control in hydraulic systems.

Order-No.:

Input:

SV100-

0...±10V	1
0...±20mA	2
4...20mA	3



Technical Data

Supply:

Voltage supply	:	19, 2...30VDC
Power consumption	:	2, 4 VA at $U_b=24V$

Input:

Voltage input	:	0...±10V / $R_{in} = 44k\Omega$
Overload	:	max. 50V
Current input	:	0...±20mA, 4...20mA / $R_{in} = 100\Omega$
Overload	:	max. 50mA

Output:

Current output	:	adjustable with Poti „I“ 0...±100mA	factory settings: 40mA
Output resistance	:	56 Ω	
Max. Burden	:	65 Ω	
Typical current	:	14 R = ± 100 mA	
depending on valve	:	28 R = ± 100 mA	
resistance	:	40 R = ± 40 mA	
	:	80 R = ± 40 mA	
	:	150 R = ± 30 mA	
	:	160 R = ± 20 mA	
	:	300 R = ± 30 mA	
	:	600 R = ± 15 mA	
Output voltage	:	depending of burden max.± 13V	
Offset	:	adjustable with Poti „0“ max. ±15mA	factory settings: 0mA
Dither-frequency	:	adjustable with Poti „f“ 180...500Hz	factory settings: 250Hz
Dither-amplitude	:	adjustable with Poti „A“ 0...50mA	factory settings: 4mA

Accuracy:

Linearity error	:	< 0, 01%
Temperature coefficient:	:	< 0, 02% / K
Transmission frequency:	:	≤ 1,2kHz at -3dB

General data:

Operating temperature	:	0...50°C
Storage temperature	:	-25...+85°C, condensation before putting into operation is not allowed
Test voltage	:	2,5kVAC / 50Hz / 60 sec. / between input / output / supply
CE conformity	:	EN 61326-1, EN 61000-4-2/3*/4/5/6*, EN 61000-6-4
	:	* during measurements are small deviations possible

Housing:

Dimension	:	Cf. drawing, 22,5mm adjoin body, 22,5x70,4x90,5mm (with terminals)
Material	:	PA / V0
Protection category	:	IP20
Connection	:	M3-screw-type terminal 0,14 – 2,5mm ² , flexible or inflexible
Fixing	:	Snap-on mounting for norm rail TS35
Weight	:	100g

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 advice:

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 warranty:

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.