

Steepness Limiter – Ramp Function Generator

SB1

Characteristics:

- Fast-stop function, < 1ms
- IN/OUT 0V to +/-10V
- Two-ramp-function
- Ramps separately adjustable
- Ramp times 0,2s to 120s possible
- Supply 24VdC
- Mountable on 35mm cap rail TS35
- Clear terminal labeling
- Narrow design
- Shape 17,5mm, super low
- PB-Power-Bus compatible
- High reliability, 5 years warranty



Description:

The devices of the steepness limiter series SB1 have been developed for limiting signal jumps or steep ramps. In the basic version are 0...+/-10V signals adjustable to 0, 5...30s ramp times. In- and output are potential bound. Further time ranges are possible on request. Both the rising as well as the falling ramp can be separately adjusted by each one potentiometer. For the case of need there is a fast-stop function which will set the output signal to 0 in a time of < 1ms. The devices have a 2-way galvanic isolation between input/output and auxiliary power.

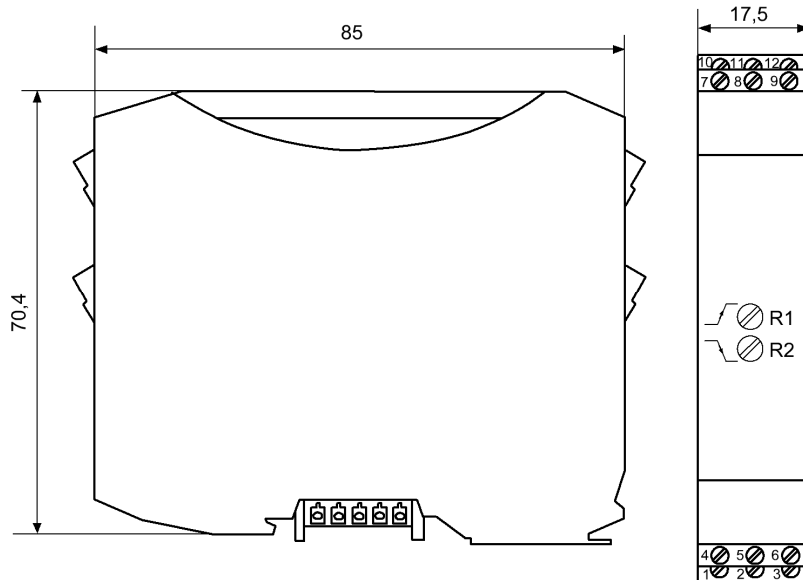
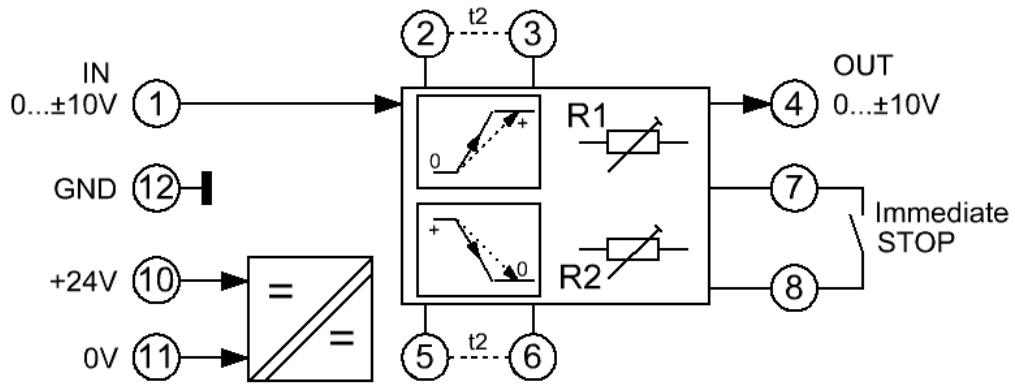
Application:

Conversion of signal jumps into ramps, steepness limiting of motion sequences.

Order-No.:

Ramp time

SB1-1	0,5...30s
SB1-2	0,2...15s
SB1-3	1...60s
SB1-4	2...120s



Technical Data

Supply:

Supply voltage : 19, 2...30VDC
Power consumption : < 1VA

Inputs:

Voltage input : 0...+/-10V / 100kΩ

Outputs:

Voltage output : 0...+/-10V
Current output : max. 20mA

Ramp time	:	t1	t2	t2 = bridges see wire diagram
SB1-1	:	3...30s	0,5...5s	
SB1-2	:	1,5...15s	0,2...2,5s	
SB1-3	:	6...60s	1...10s	
SB1-4	:	12...120s	2...20s	

Error rate:

Transmission error : < 20mV
Temperature error : < 10μV / K

General data:

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

Body:

Dimension : See drawing, 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 : 72g

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.