

Signal converter 3 channel 1Vss sin/cos to 24V (HTL) / 5V (TTL)

SU5

Characteristics:

- Input 1Vss sin / cos
- Transmission frequency 1MHz
- Output 5/24VDC/3x 50mA
- Potential separation input/output
- one status display per channel in the output
- Bus termination - 120 Ohm pluggable
- fast switching times
- Supply 24VDC
- for mounting rail mounting TS35
- clear terminal marking
- small dimensions
- Design 17,5mm, super flat
- PB - Power-Bus - capable
- high reliability, 5 years warranty



Description

The devices of the signal converter series SU5 are used for level conversion or level conversion of rotary or incremental encoders with sinusoidal output signals with a typical magnitude of 1Vss sin/cos, measured as difference signal at 120 Ohm resistance between the two signals A,/A ; B,/B or Z,/Z.

Three independent channels are available which transmit the respective input signal to an output signal of 5V (TTL) or 24V (HTL), depending on the device version.

The individual input signals can be connected with a terminating resistor of 120 Ohm by means of jumpers. To be completed. To avoid crosstalk on unused channels, these should only be plugged into wired inputs. If not all signals are used, the respective jumper has to be removed, thus the signal inputs are terminated internally. An LED in each output indicates the switching status. The devices have a galvanic two-way isolation between input and output. We need an auxiliary power of 24Vdc, which is afflicted with the output signal ground. All modules can be snapped onto TS35 mounting rail.

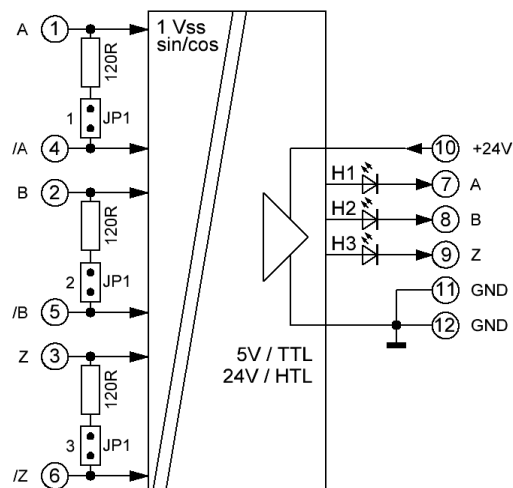
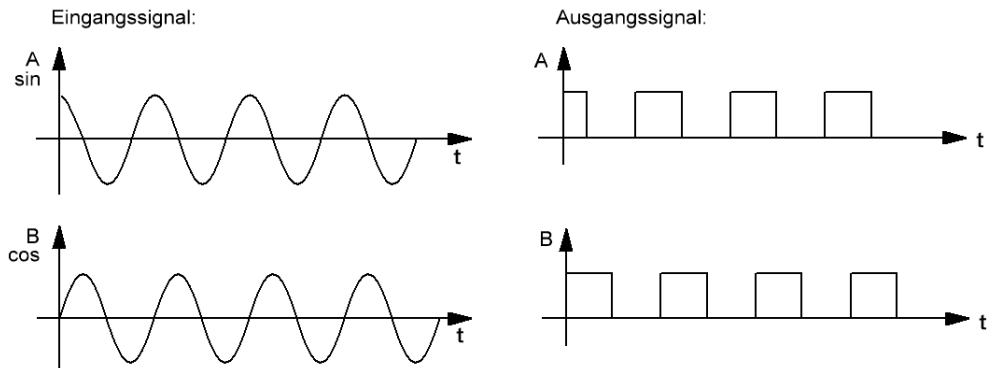
Application:

Signal conversion Sin / Cos encoder to 5VDC (TTL) or 24VDC (HTL)

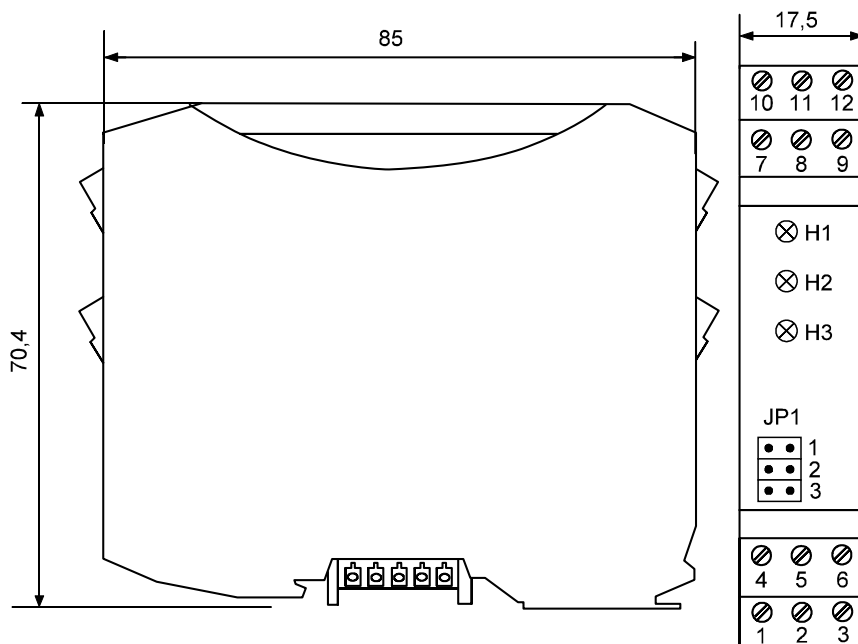
Ordering key:

Output:

SU5-1	24VDC (HTL)
SU5-2	5VDC (TTL)



Hinweis: Bei nicht benutzten Kanälen den Jumper JP1 entfernen.
Dadurch werden die Eingänge intern abgeschlossen.



Technical data

Power supply:

Supply voltage	:	19,2...30VDC
Power consumption	:	< 1,5VA + Load

Input:

Signal	:	0,3 to 2,5 Vss; Typ: 1 Vss ; measured as a difference at 120Ohm
Input signal	:	3 differential inputs A, /A ; B, /B, Z, /Z
Input resistance	:	120Ω, per channel switchable jumper removable

Channel A: JP1-1
Channel B: JP1-2
Channel Z: JP1-3

For unused channels the corresponding jumper JP1 has to be removed.
This will terminate the inputs internally.

Output:

Voltage output	:	SU5-1: 24VDC (HTL) SU5-2: 5VDC (TTL)
Output current	:	max. 3x 50mA
Transmission frequency:	:	max. 1 MHz
Signal delay	:	ton = 200ns, toff = 120ns
Short circuit proof	:	conditionally, <3s

General data:

Operating temperature	:	0...50°C
Storage temperature	:	-25...+85°C, condensation before putting into operation is not allowed
Test voltage	:	1,5kVAC / 50Hz / 60 sec. / between input / output / supply
MTBF	:	125 years mean time between failures – according to EN 61709 (SN 29500). Requirements: Stationary operation in clean rooms, average ambient temperature 40 ° C, no aeration, continuous operation
CE conformity	:	EN 61326-1, EN 61000-4-2/4/5/6*, 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	:	64g

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.