D- 41751 Viersen-Dülken · Textilstr.2



# **Signal Converter – Pulse Prolongation**

SF1

#### Characteristics:

- 10ms 1,5s pulse prolongation free adjustable
- min. 5µs/20µs trigger pulse
- Output 24VDC/100mA
- Retrigger-able, or not retrigger-able
- Status display in output
- With/without transparency function
- Supply 24VDC
- Mountable on 35mm cap rail TS35
- Mountable side by side via link plug
- Tension spring connection
- Shape 6,2mm
- High reliability, 5 years warranty



#### Description:

The devices of the signal converter series SF1 are made for pulse prolongation of extremely short pulses. Already from  $5\mu$ s on output pulses from 10-1500ms can be generated. The output pulse length can be rough adjusted via switch and fine adjusted via potentiometer. The devices have a connectable retrigger function. An also connectable transparency function allows also a longer input pulse than the adjusted output pulse length. The switching status is displayed by a LED.

#### Application:

Signal prolongation for precise recognition in PLC or SPS or similar.

#### **Order Code:**

Type: Input signal: Input trigger Output signal:

SF1-1 24VDC rising edge high activ SF1-2 5VDC rising edge high activ

Bestellschlüssel Ergänzung (optional):

-6 falling edge high activ
-7 falling edge low activ
-8 rising edge low activ

Order example 1:

Input: 24Vdc
Input trigger: rising edge
Output signal: high activ
Type: SF1-1

Order example 2:

Input: 5Vdc
Input trigger: falling edge
Output signal: low activ

Type: SF1-2-7

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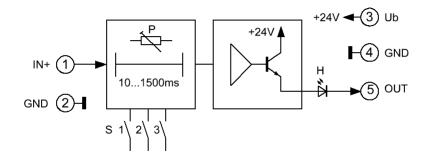
### Adjustment:

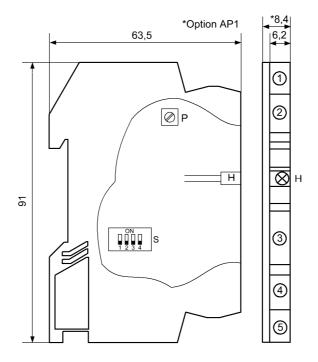
Schalterstellung	<b>S</b> 1	S2	S3	<b>S4</b>
OFF	10150ms*	nicht retriggerbar*	ohne Transparenzfuktion*	nicht belegt
ON	1001500ms	retriggerbar	mit Transparenzfunktion	nicht belegt

\*with potentiometer P adjustable **Delivery conditions: Ca. 100ms** 

Retrigger function: The SF1 can be triggered again, before the output pulse is present.

Transparency function: If the input pulse is longer than the adjusted time at SF1, the output pulse length extends to the length of the input pulse length.





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### **Technical data:**

Supply:

Supply voltage : 19, 2...30VDC Power consumption : 20mA + load

Inputs:

SF1-1 : 16, 8...30VDC, 3, 5...7mA

Low <3V High >10V

SF1-2 : 3, 75...6,25VDC, 1, 5...3,3mA

Low <1V High >3V

**Outputs:** 

Voltage output : Ucc – 1V

Current output : Max. 100mA, short-circuit proof

Switching time :  $>5\mu s$ , not retrigger-able

>20µs, retrigger-able

Output pulse : 10...1500ms

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, 6,2mm terminal block body, 6,2x63,5x91mm

Material : PA 6, 6 / V2

Protection category : IP00, IP20 with side cover/end cover plate

Connection : Spring force connection 0, 2 - 4mm², inflexible, 0, 2 - 2,5mm, flexible

Contact load with link plugs max. 24A

Fixing : Snap-on mounting for norm rail TS35

Weight : 21g

Mounting position : As you like / Mountable side by side

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#### 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 <u>ZVEI</u> 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.