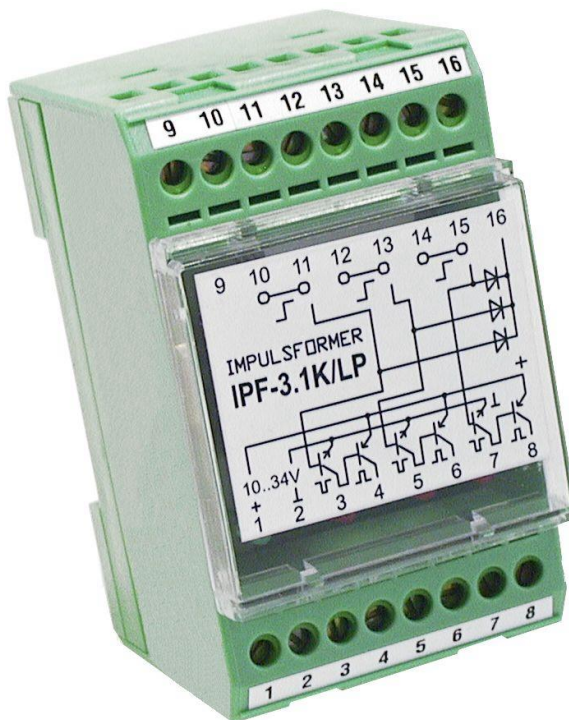


-90 -80 -70 -60 -50 -40 -30 -20 -10

-10

-20

# Pulse Shaper IPF-3.1K



## IPF 3.1K/LP and IPF 3.1K/LM

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## 1 General remarks

In order to detect very short signal pulses, a pulse shaper can be used, that transcribes short signal pulses into longer signal pulses or limits signal pulses, which are too long (re-triggerable).

Pulse shapers are used with control systems (SPS) having long cycle times, for example.

## 2 Principle of function

- The pulse shaper IPF-3.1K/LM generates defined output pulses in case of trailing edges of the input signal.
- The pulse shaper IPF-3.1K/LP generates defined output pulses in case of rising edges of the input signal.

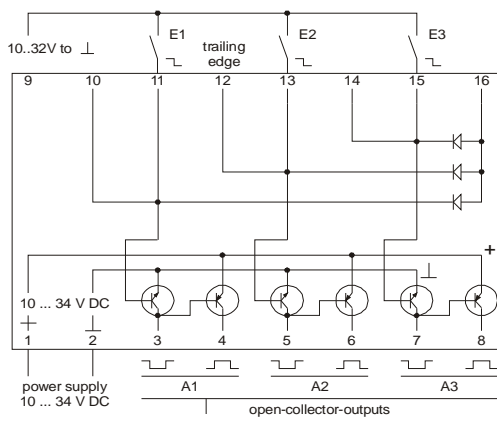
The output circuit is formed by a PNP-OPEN-COLLECTOR, which switches to positive potential for the output pulse duration. At the inverted outputs a NPN-OPEN-COLLECTOR switches to ground.

3 impulse channels are provided. Each input is led through a diode (undelayed) to a common terminal (16).

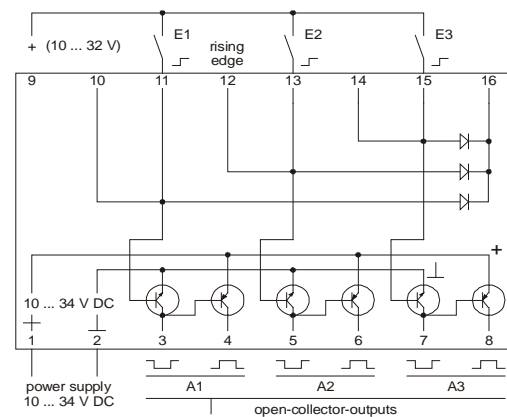


**Note:** This component generates pulses when supply voltage arises!

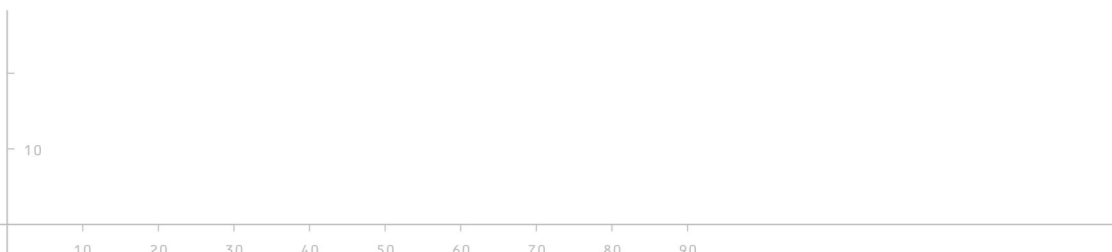
## 3 Connection diagram



**IPF-3.1K/LM**



**IPF-3.1K/LP**



## 4 Installation note

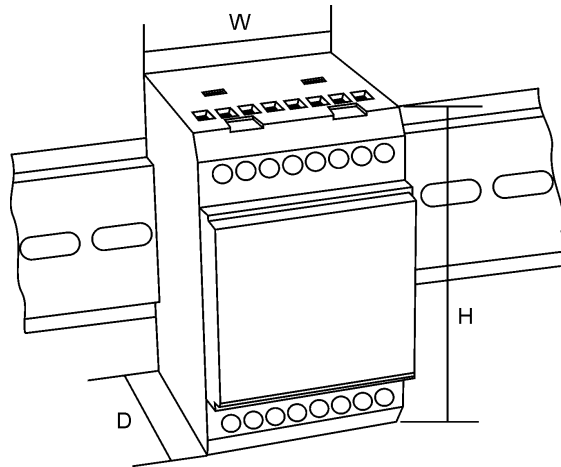
Due to the influence of inductively coupled interference voltages or high magnetic field intensity (i.e. power switches) faulty pulses may occur. Adequate measures for shielding have to be taken in critical cases. For example separate conducted power supply and input cables (shielded where necessary). Moreover the input signal wires should be as short as possible.

## 5 Technical data



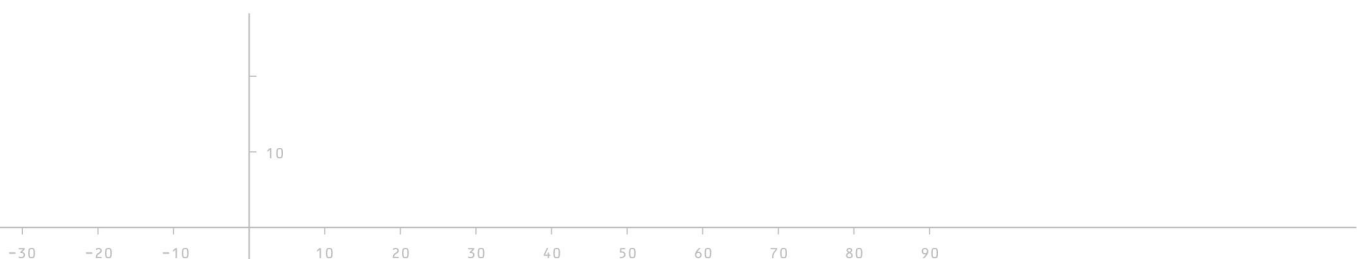
**Mounting and first commissioning only by qualified personnel.  
Electrical connection in accordance to VDE 0160.**

<b>Operating voltage</b>	10 ... 34 V DC
<b>Power consumption</b>	approx. 0,5 VA
<b>Minimum input impulse length</b>	approx. 30 ms
<b>Output impulse length</b>	approx. 5 s (others on request)
<b>Output stage</b>	NPN / PNP-OPEN-Collector (max. 200 mA)
<b>Ambient temperature</b>	-20 ... +55 °C ( device without thawing )
<b>Housing dimensions</b>	W / H / D : 45 x 75 x 52 mm (35 mm standard bar)



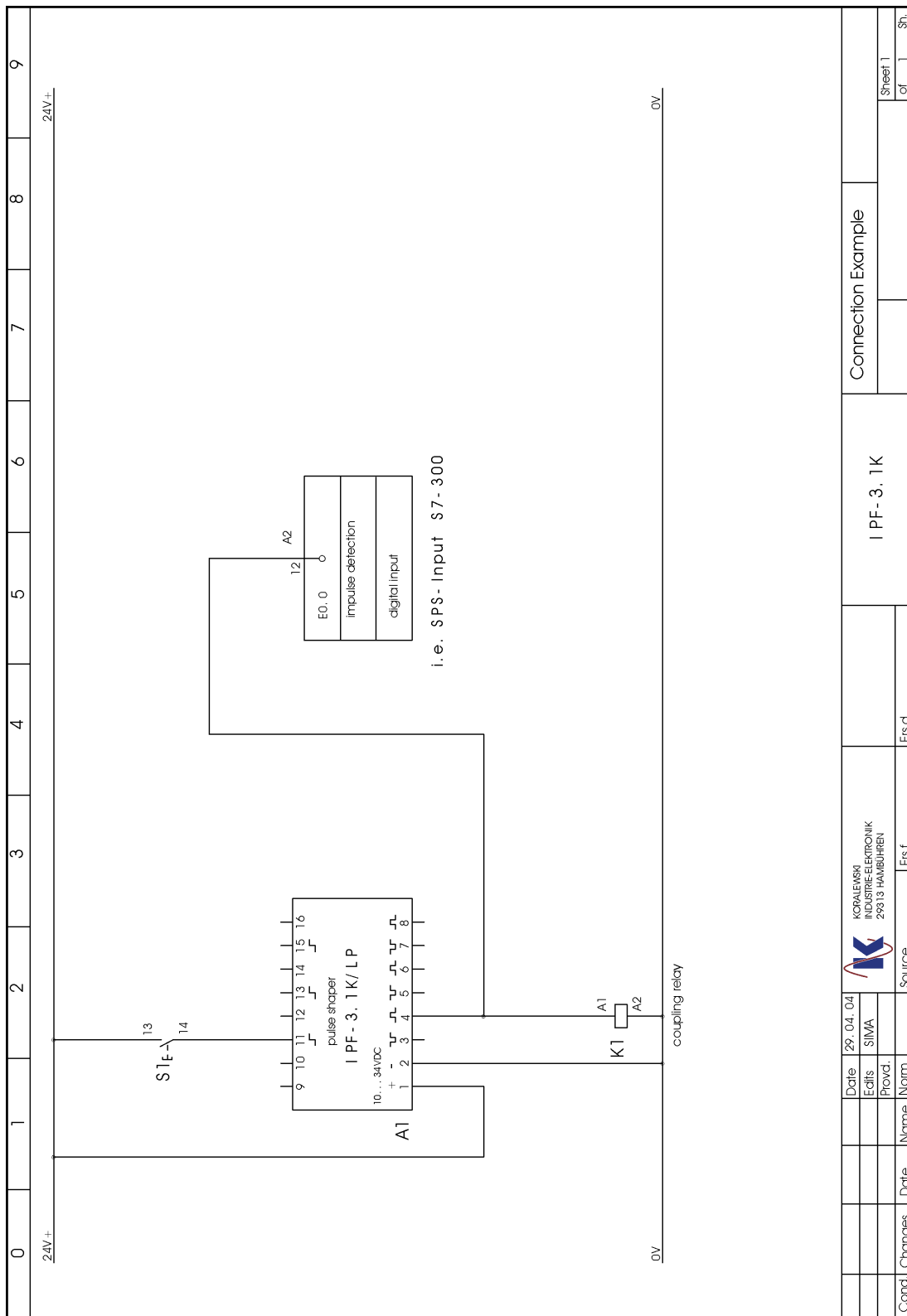
### 5.1 Ordering information

Pulse Shaper IPF-3.1K	Part number
IPF-3.1K / LP:	E1239
IPF-3.1K / LM:	E2076





## 6 Connection example



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