

# ISN Pulse Rate Measuring Relay

<b>Device</b>	<b>Pulse Rate Measuring Relay ISN</b>
For exact type designation and ref. no. see page 1.1.0.4	ISN1/410ch-1.24-24 VDC 17.11-07

### Technical data

Permitted operating range (L+, L-)	8 ... 24 ... 30 V DC
Power consumpt. without pulse sensor no load	< 35 mA
Operating temperature	0 ... + 55 °C
Operation mode	continuous
Housing	.24 (see housing data)
Weight	approx. 60 g

### Input (E)

Pulse sensors	see ALSEN catalog (TK 2)
More sensors	see ALSEN catalog (TK 1)
Input frequency	0.167 Hz ... 2.5 kHz
Permitted duty cycle	1 : 0.7 ... 1.3
Level lo	0 ... 1.5 V DC or open entry
Level hi	5 ... 30 V DC
Threshold S	adjustable 1 ... 12 pulses / min
Range switch-over	x10, x100, x1 k, x10 k
Hysteresis H	fixed approx. 5 % of S
Input current	max. 14 mA

### Output (P)

supply pulse sensor	
* max. current load capacity	≤ 100 mA

### Output (A)

signal output ISN	
Output type	without contact
Category	P-switching
Output voltage	operating voltage - 0.8 V DC
Current load	≤ 200 mA

### Safety:

Short-circuit proof ? / reverse polarity protect. ?	yes / yes
---	-----------

### Indicators

1 green LED	power on
1 LED yellow for the output:	
Operating mode a	exceeding treshold S
Operating mode b	falling below treshold S

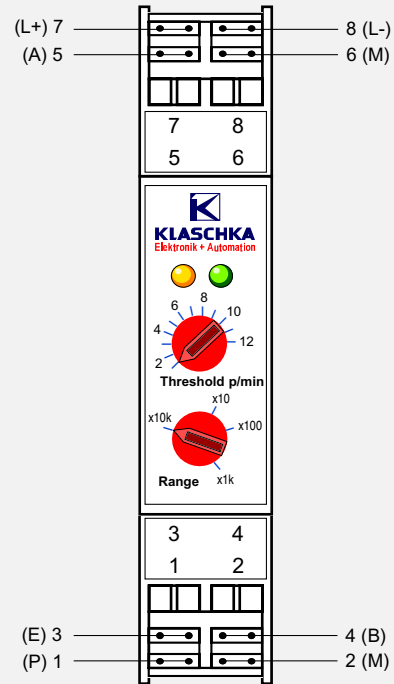
### Accuracy

Setting accuracy	± 5 %
Temperature influence	± 3 %
Operating voltage influence	± 0.1 %

### Accessory

sliders for screw fixing	
--------------------------	--

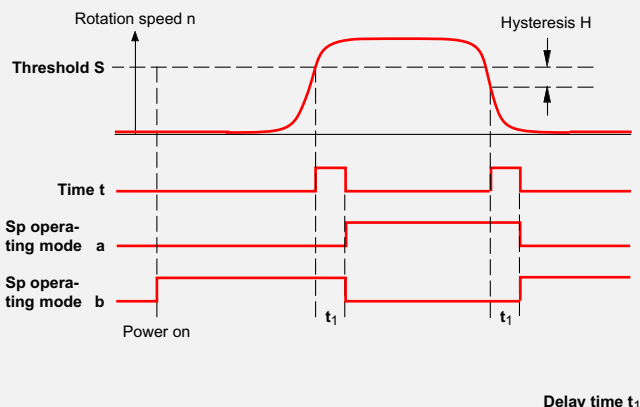
For common technical and housing data see catalog pages 1.0.1 to 1.0.4  
For general description see catalog page 1.1.0.1



\* For higher current loads an external power supply is necessary.

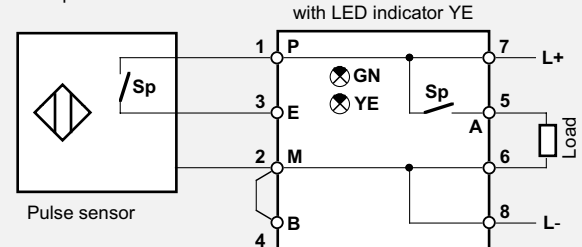
Range	Pulses / min	Frequency Hz	Delay time in ms
x 10	10 ... 120	0.167 ... 2	6.000 ... 500
x 100	0.1 k ... 1.2 k	1.67 ... 20	600 ... 50
x 1 k	1 k ... 12 k	16.7 ... 200	60 ... 5
x 10 k	10 k ... 120 k	167 ... 2 k	6 ... 0.5

### Pulse diagram



### Wiring

DC 3-pole



B = Bridge for operating modes

Operating mode a: without bridge 4-2 Nominal rotation speed monitor  
Operating mode b: with bridge 4-2 Standstill monitor

## 1.1.1.1