

## Tachometer Relay



### Description

Microprocessor based Multi-function tachometer relay with four selectable speeds. The unit can be selected for OVER and UNDER speeds and interfaces directly with a Namur two wire proximity sensor or limit switch.

### FEATURES

- Microprocessor based design
- Programmable speed ranges: 1-10000 RPM
- Rear DIP switch selection of UNDER / OVER speed
- Rear DIP switch selection for 10sec start-up delay
- Potentiometer adjustable speed setting
- Oscillator controlled measurement circuit
- Power supply ON and Relay ON LEDs
- Output 5A DPDT

### Speed Specifications

Speed Ranges	Speed RPM	Response Time
	1 - 10	60 sec
	10 - 100	10 sec
	100 - 1000	6 sec
	1000 - 10000	1 sec
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Range Accuracy	≤ 0.5%	
Scale Accuracy	± 5%	
Repeat Accuracy	± 0.2%	
Time Variation	≤ 0.05% / V	
within rated power supply and ambient temperature	≤ 0.2% / °C	
Reset Time	500 ms	

### Output Specifications

Output Specifications	SPDT
Rated Isolation	6000 VAC (contact / electric)
Voltage	1000 VAC (contact / contact)
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Nominal Rate in AC1	1500 VA (Ag-Ni)
Rated Current	5A
Rated Voltage	250V
Mechanical Life	10x10 <sup>6</sup> cycles
Electrical Life	110x10 <sup>3</sup> cycles (at max load)
Operation Frequency	≤ 1800 cycles/h

### Supply Specifications

Power Supply AC Type (Galvanic)	110, 230, 400V
	525V ± 10%
	50 / 60 Hz ± 5Hz
Isolation	4kV
Consumption	± 3VA
	± 6VA 525 V
Power Supply DC Types (Non-galvanic)	12,24,48 V ± 10%
Isolation	None
Consumption	± 100 mA



### General Specifications

Power ON Delay	≤ 300 ms
Power OFF Delay	≤ 200 ms
Indication for Power Supply ON	LED red
Output ON	LED green
Environment	
Degree Of Protection	IP 20
Operating Temperature	-10 to + 50°C
Storage Temperature	-50 to + 85°C
Weight	200g

## Tachometer Relay

### Mode of Operations



#### Over Speed

  The relay will de-energize if the speed exceeds the set limit. If the speed reduces by 5% of the set value the relay will energize.

#### Example

Starter motor disabling on generator.

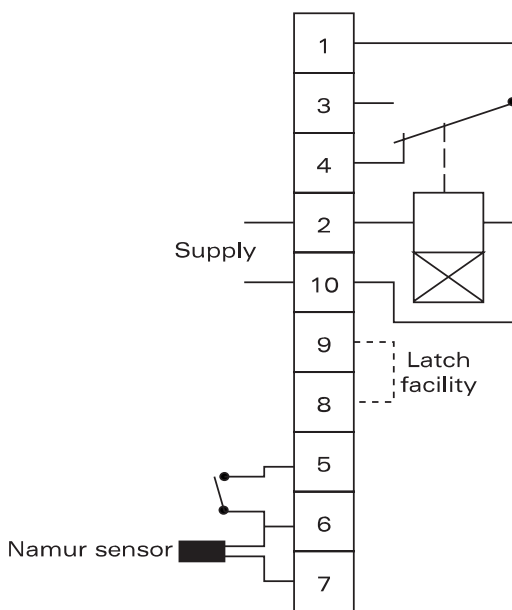
#### Under Speed

  The relay will de-energize if the speed drops below the set limit. If the speed increases by 5% of the set value the relay will energize.

#### Example

Example Detection of conveyor belt break.

### Wiring Diagram



### Operations Diagram

