

**Tacho Voltage Detector M0500-5X**



**Description and Use**

M0500-5X-21

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## Tacho Voltage Detector M0500-5x



The SELCO Tacho Voltage Detector M0500-5x is for use with the SELCO Engine Controller M2000 and the SELCO Emergency Controller M2100.

The unit can be used with these controllers as an alternative to a voltage relay and a tacho relay with 3 levels.

It is mounted in the K0850 Enclosure. This enclosure has a DIN rail fixture. Alternatively it can be mounted directly on the back of the Engine Controller M2000 or the Emergency Controller M2100.

The unit has two voltages to be selected on a switch, for example 230V / 400V.

The inputs to the unit are simply taken from the generator output (L/L or L/N) which at the same time are used as supply for the unit.

The unit has two open collector outputs for connection to the controllers: "Tacho Out" and "Gen. Volt On".

## Tacho Out:

The “Tacho Out” will give a square wave input to the controllers with the same frequency as the generator frequency. The output is an open collector output, present over a very wide generator voltage range, from very low voltages and up to above the nominal voltage. The input signal from the generator is filtered in order to make sure that the output signal is representing the frequency of the generator correctly.

When the output signal is present the LED “Tacho” will be indicating.

“Tacho Out” on terminal B3 is connected to 8 of the Engine Controllers M2000 and M2100 and “Com.” on terminal B1 is connected to terminal 29 of the controllers.

When connected to a controller there will be a square wave voltage with the generator’s frequency. In the controller this frequency will be detected as follows:

More than 33%:	Crank disconnect
More than 90%:	Normal RPM
More than 115%:	Overspeed

All three functions are used in connection with the M2100, but the M2000 only needs two functions: Crank disconnect 33% and Overspeed 115%.

## Gen. Volt On:

This output is used in connection with the Emergency Controller M2100. This is also an open collector output. The generator’s voltage is measured and the output is indicating, when the voltage is sufficiently high (f. ex. 90% of nominal voltage) to allow transfer and load on the emergency generator.

When the output signal is present the LED “Gen. Volt on” will be indicating.

“Gen. Volt on” on terminal B2 is connected to 7 of the M2100. With this connection the terminal will go low, when the generator is on sufficiently high voltage.

This output is on delivery pre-adjusted to indicate at 90 % of nominal voltage, but it can be adjusted to other voltages on the “Volt Adj.” potentiometer.

## Type Selection:

Type	Voltages
M0500-51	230V / 400V

Dimensions

