

# M0500 Tacho Voltage Detector

## Converter for M2100 Emergency Controller and M2000 Engine Controller

The unit substitutes - together with the M-controller - a voltage relay and a tacho relay with 3 levels. On the front the LED "POWER" will indicate that 12-24V DC is connected.

The M0500 is only operative with programming switch S15 open on the M2000 and the M2100.

In details the unit has two functions:

1) To amplify, convert and filter the very low voltage on the self excited synchronous generator present at 33% of nominal frequency, and at the same time take care of the signal when the generator is on nominal voltage.

The output signal is on terminal 3 and when this is connected to terminal 8 "TACHO INPUT" on the controller a square wave voltage will appear with the generator's frequency. In the controller this frequency will be detected as follows:

More than 33% is : Crank disconnect  
 More than 90% is : Normal R.P.M.  
 More than 115% is : Overspeed

If the output signal is present, the LED "TACHO" indicates.

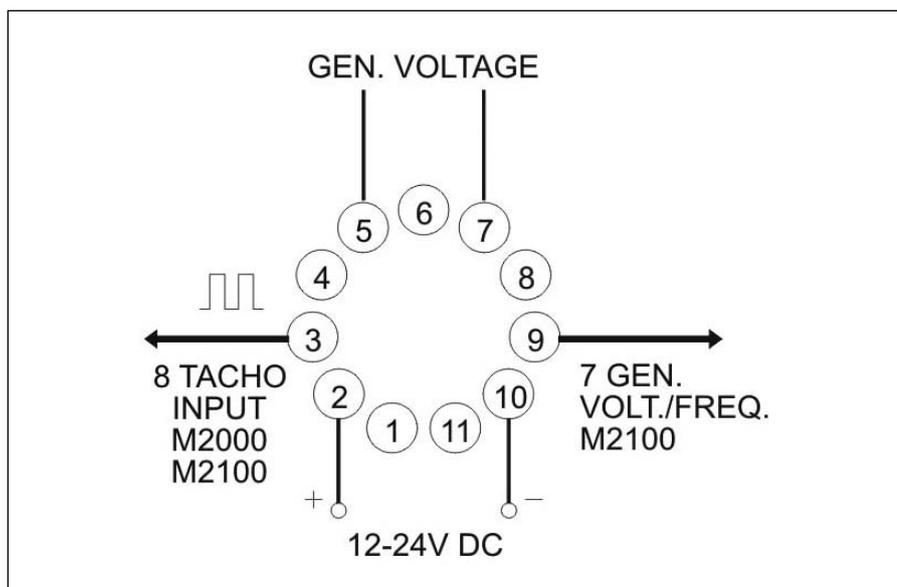
2) To measure the generator's voltage and to give a signal when the voltage is higher than 90% of the nominal voltage. This function is used in connection with the M2100.

The output signal is on terminal 9, and with this connected to terminal 7 on the M2100 this terminal will indicate when the generator is on nominal voltage. In the controller the signal is used to allow transfer and load on the emergency generator. When the output signal is present LED "GEN. VOLT" indicates.

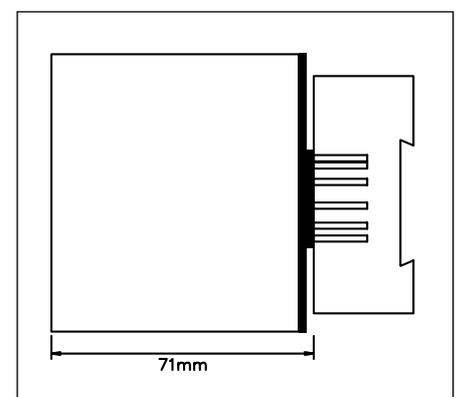
At delivery this voltage level is set to 90% of the nominal voltage. However, this level can be changed on the voltage adjustment dial on the front of the unit. Apply the desired voltage and adjust the dial level so that the "VOLT. OK" LED indicates at this voltage level.



All these functions are used in connection with the M2100, but the M2000 only needs two functions: crank disconnect 33% and overspeed 115%.



Connections.



Dimensions.

# Specifications

## M0500 Indicator Tacho Voltage Detector

### SELCO Worldwide



Argentina	Korea
Australia	Malaysia
Austria	Mexico
Brazil	Netherlands
Belgium	New Zealand
Bulgaria	Norway
Chile	Pakistan
China	Philippines
Croatia	Poland
Czech Republic	Portugal
Egypt	Romania
Finland	Russia
France	Singapore
Germany	South Africa
Greece	Spain
Hong Kong	Sweden
Iceland	Taiwan
India	Thailand
Indonesia	Turkey
Iran	Ukraine
Italy	United Kingdom
Japan	U.S.A.

<b>Voltage supply</b>	12-24V DC -30% / +30% (8-32V DC)
<b>Consumption</b>	40mA
<b>Frequency range</b>	0-100Hz
<b>Operating temperature</b>	-20° to +70°C
<b>EMC</b>	CE according to EN50081-1, EN50082-1, EN50081-2, EN50082-2
<b>Approvals</b>	Certified by major marine classification societies
<b>Burn-in</b>	50 hours before final test
<b>Enclosure material</b>	Noryl. Flame retardant
<b>Weight</b>	160g
<b>Dimensions</b>	76 x 38 x 71mm (H x W x D)
<b>Installation</b>	11 poles plug for screw mounting or DIN-rail

The specifications are subject to change without notice.

### Type Selection Table

Type	Pin 5-7	Pin 2-10	Generator voltage adjustment
M0500.0070	230V	12-24V DC	88-225V
M0500.0080	400V	12-24V DC	170-450V

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