### Generator Control Basic



#### **Electronic Potentiometer**



CE



# Simplified Circuit Diagram



# **Ordering Information**

ORDERING NUMBER	TERMINALS	
	11-12	1-3
T7900.0010	24 Vdc/Vac	
T7900.0030		250 Vac

# Description

The T7900 Electronic Potentiometer is used as converter between pulse contacts and a device requiring control adjustment by a voltage or current signal, such as an electronic speed controller. The T7900 acts in a similar manner to a motorized potentiometer, except that the outputs are a voltage, a current or a pulse width modulated signal (PWM), while the motorized potentiometer has a variable resistor output.

In generator control applications, the T7900 can be used together with a Synchronizer and a Load Sharer. The T7900 converts the increase and decrease pulses of these modules into a suitable analog voltage, current or PWM signal. This analog output signal can be used as a control input to the electronic speed controller.

### **Features & Benefits**

FEATURES	BENEFITS
Wide selection of output ranges including PWM	Ensures possible use with a broad variety of speed governors and voltage regulators
Independent ramp-up & ramp-down time setting	Provides optimum controlabilty of speed governors and voltage regulators regardless of generator size
Power reference function	Enables alternative use as power reference unit providing generator load set point in grid parallel installations
Available with Vac supply	Enables direct supply from installation
Visual indication of increase/decrease signals	Provides quick and concise status information
DIN-rail or screw- mount & adjustment by potentiometers	Easy installation

### **Specifications**

Supply Consumption Output Ranges	8-36 Vdc/Vac Max. 120 mA at 24 Vdc -10 V-+10 V (or any part of this, e.g. 0 V-+1 V) 0-20 mA (or any part this, e.g. 4 mA-20 mA) 0-100% PWM 500 Hz (or any part of this e.g. 10-90%) 0-100% PWM 2.94 MHz (or any part of this e.g. 10%- 90%)
PWM Output Signal	Frequency: 500 Hz of 2,94 KHz. Level: 0-10 V Default reference: 50%
Operating	
Temperature	-20°C to +70°C
EMC	EN50263
Burn-in	50 hours before final test
Enclosure Material	Polycarbonate. Flame retardant
Weight	0.3 kg for T7900-00, 0.5 kg for other types
Dimensions	<b>H</b> 70 mm (2.7"); <b>W</b> 100 mm (3.9");
	<b>D</b> 115 mm (4.5")
Installation	35 mm DIN rail or 4 mm ( <sup>3</sup> /16") screws

# **Mouser Electronics**

Authorized Distributor

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Littelfuse:

<u>T7900.0010</u> <u>T7901</u> <u>T7900.0030</u>