

# EP300

## Electronic Potentiometer



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Prague, Czech Republic

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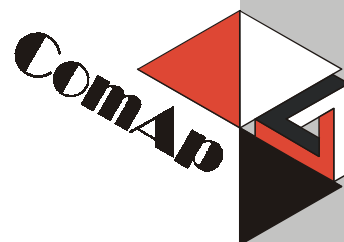
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## ELECTRONIC POTENTIOMETER EP300

### DESCRIPTION

EP300 is a microprocessor controlled device with variable resistance (3 wires potentiometer) at the output terminals. The value of output resistance is changed by contact inputs. EP300 is equipped with a LED display for indication of current position and for parameters setting. The device is shipped in a plastic box equipped with DIN lock for mounting to the switchboard.

- Features:**
- Adjustable ramp speed from 1 to 50 % per sec, separately for increasing and decreasing the value
  - Adjustable initpoint from 0% to 100% with step 1%
  - Adjustable lower and upper limit
  - Control contact inputs INC and DEC are galvanic separated from the internal circuits of the device
  - Special contact input for initpoint setting init value
  - After power on, the initpoint is set automatically
  - Output can be controlled also manually by microbuttons
  - LED display for current position indication and for parameter setting

### USAGE

The device is designed for application in control and/or regulation systems, where the input to the controlled device is a potentiometer (variable voltage divider) and the output from the controlling device are two binary (contact) signals – regulated value “higher” and “lower” .

Typical application are speed governors for combustion engines or voltage regulators for alternators.

### TECHNICAL DATA

Supply voltage:	230 V AC, 24(18-30)V DC, 12(9-15)V DC
Consumption:	1,2W/12V DC; 2,4W/24V DC; 1,8VA/220V AC
Supply voltage for bin. Inputs:	8-30V DC
Inputs common terminal:	positive
Min. input pulse length:	5ms
Nominal resistance:	500Ω-100kΩ in series 1-2-5-10
Output resistance step:	1/256 $R_{nominal}$
Ramp speed:	adjustable separately for increasing and decreasing in range from 1 to 50% per second
Max. load of output resistance:	min. 0,6W
Max. voltage on the output:	150V
Galvanic separation:	-power supply separated by transformer (230V version only) 4kV -inputs separated by optocouplers 2kV -output separated by relays 1kV
Degree of protection:	IP20
Operation temperature:	-20 to +70°C
Storage temperature:	-40 to +70°C
Dimensions (WxHxD):	106x90x73 mm

## PARAMETERS SETTING

( SPEED UP, SPEED DOWN, UPPER LIMIT, LOWER LIMIT, INIT POSITION)

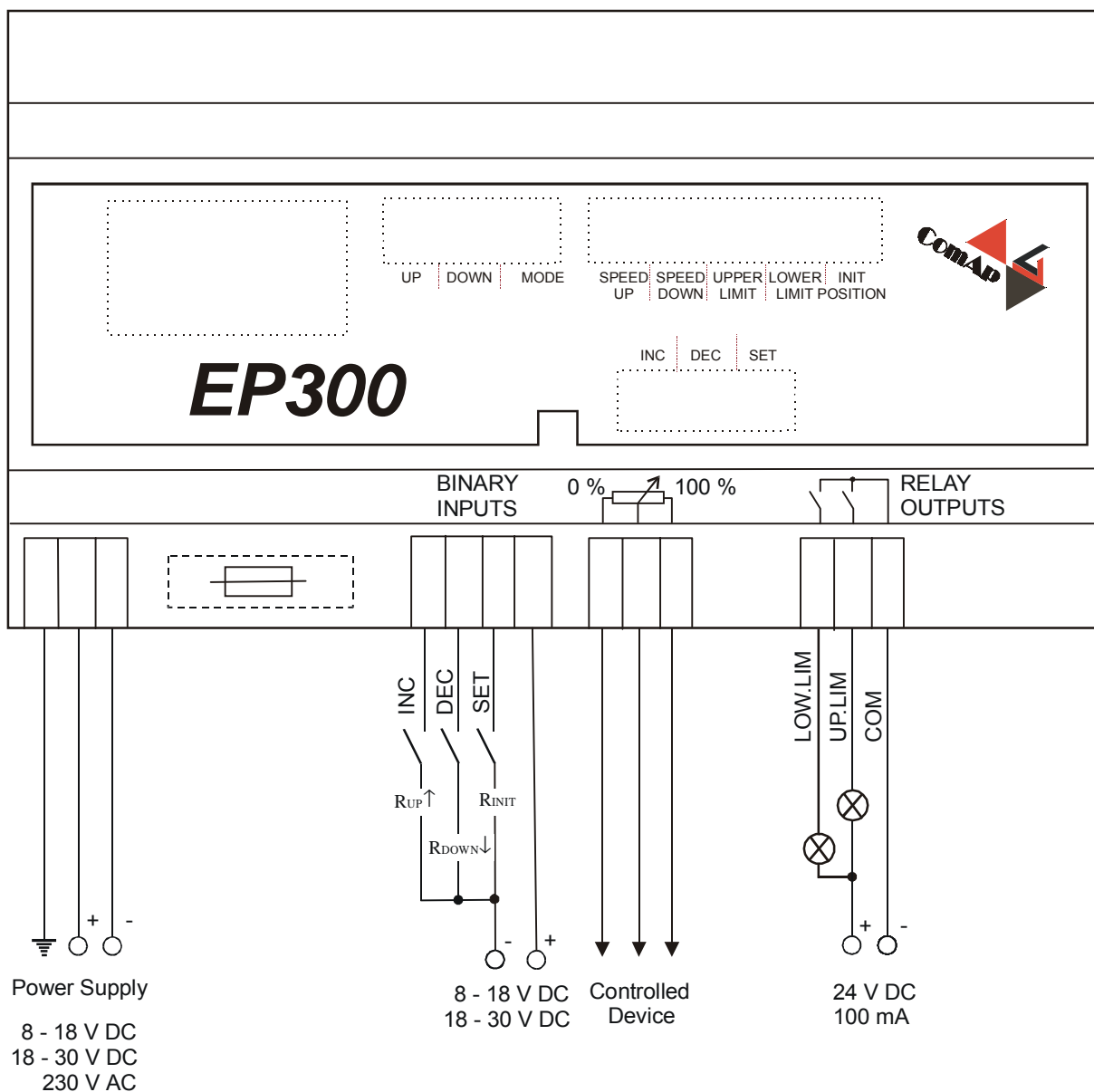
1. Select parameter by “UP”/”DOWN” buttons  
Corresponding LED should continuously lit.
2. Press “MODE” button to enter edit mode.  
Corresponding LED should blink.
3. Adjust parameter by “UP”/”DOWN” buttons.
4. Press “MODE” button to write parameter into memory.
5. Repeatedly press “UP”/”DOWN” buttons until all green LEDs are turned off.  
Current value  $R_{out}$  should be visible on display.

## ROUT – MANUAL SETTING

1. Repeatedly press “UP”/”DOWN” buttons until all green LEDs are turned off.
2. Press “MODE” button to enter edit mode.  
All green LEDs should blink.
3. Adjust  $R_{out}$  by “UP”/”DOWN” buttons
4. Press “MODE” button to return.

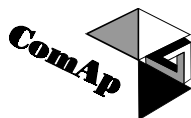
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## WIRING DIAGRAM



## Order Codes:

EP300/230/R	Supply 230V AC
EP300/24/R	Supply 24V DC
EP300/12/R	Supply 12V DC
R = Nominal Resistance	512Ω, 1kΩ, 2kΩ, 5kΩ, 10kΩ, 20kΩ, 50kΩ, 100kΩ



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