

# **Series** **P85, P87 and P88**



Compact Position Controllers

## **P85, P87 and P88** Compact Position Controller

**General:** The single axis controller of *P8511* series will be applicable to easy standard positioning tasks. An important feature is primary the easy structured function menu. It allows, quickly and comfortable, to set the target value and if necessary, a specific quantity of desired pieces in the batch counter window. Target value, actual value and quantity will be displayed on the front panel. All values and parameters can be programmed via numeric keypad on front. Additional keys starts or stops the positioning procedure. *P8721* is identical to *P8511* with an additional program memory of 200 different lines. *P8822* is a 2 axes controller and fulfills except for few restrictions the whole functional range of *P8721*. Three different kinds of output signals are available for the positioning:

- Digital transistor outputs for frequency inverters
- Potential free shutter relays for pole changing break motors
- PID-Analog output\* for servo systems( \*in preparation for P8822)

A 24 VDC- or 115 / 230 VAC-power pack is integrated in the unit. An optional serial interface allows data transmission and communication with a superior system.

### **Product features:**

- Easy operating and handling
- Manual operation mode
- Relay- or digital outputs (+24 V-PNP) possible
- PID-Analog output available (P85 and P87)

### **Standard functions:**

- Adjustable output signals (3 different speed rates)
- Absolute - or incremental positioning
- Datum value and gauging
- Inch/mm - switchover
- Pulse factor and multi edge counter
- Tolerance window
- Incremental error compensation
- Loop operation
- Saw blade/tool compensation
- Encoder monitoring
- Batch counter (only P8511 and P8721)
- Manual operation mode
- Software end limit monitoring

### **Differences:**

*P8511* - Single axis controller without program memory

*P8721* - Single axis controller with program memory

*P8822* - Two axes controller with program memory

### **Applications**

- Woodworking machines
- Band sawing
- Grinding machines
- Plate shears
- Fence
- Break forming machines
- ... and much more



## Technical specification:

Displays	Red, 8mm high, 7 segment LED
Power supply	24 VDC, max. 200mA 115/230 VAC, max. 20 VA (unloaded status and de-energized relays)
Encoder supply	24 VDC, max. 130 mA
Connectors	D-SUB- plug connectors or RIA-plug connectors
Accuracy of the system	+/- 1 increment
Power down memory	10 years (EE-Prom)
Counting frequency	20 KHz
Operating temperature	0 - 50 °C
Store temperature	0 - 70 °C
Humidity	Not condensing, max. 80 %
Altitude	Max. 2000 m
Housing	Black, metal panel housing
Dimensions of housing	144 x 144 mm
Cot out	138 x 138 mm
Install depth	75 mm 83 mm with RIA-Connectors, 110 mm with D-SUB Connectors
Keypad	Membrane keypad
Protection class	IP 43 (installed status)
<b>Inputs</b>	
Static input signals	PNP (Option -EN: NPN ), 300ms Min. pulse time/ Pin, max. 10 mA / input current / Pin (Start, Stop, reference, Incremental minus, Incremental plus, retract, fix position, batch counter up/down, End switch minus, End switch plus, Reset-System*)
<b>Outputs</b>	
Output signals	Push/pull, conditional short cut proofed, max. 10 mA output current, integrated recovery diodes (at Option -R potential free shutter relays, max. 5 A at 230 VAC resp. max. 2 A at 24 VDC) (Speed signals, Position reached, Drive enable, Quantity reached, Reference run active, Manual mode, Single mode*)

\*) There aren't all in- and outputs available, when ordered Option-R

## Order reference:

For orders, please use the following order code:

P8511  
P8721  
P8822 -          -          -    -   

### A Version

000 ELGO standard  
001 First special version

### B Supply

024 24 V DC  
115 115 VAC  
230 230 VAC

### C Signal inputs of the measuring system

Channel	Supply/Output level	Counting frequency
0 A, B	24 V / 24 V	20 kHz
1 A, B, 0	24 V / 24 V	20 kHz
2 A, /A, B, /B	24 V / TTL	100 kHz
3 A, /A, B, /B, 0, /0	24 V / TTL	100 kHz
8 A, B (NPN)	24 V / 24 V	20 kHz

### D Options

-P PID-Analog output (+/- 10 V)  
(in preparation for P8822)  
-R Relay outputs (7 Shutters)  
-S Serial interface RS232  
-EN All inputs NPN (incl. Index pulse)

For Example:

P8511  
P8721  
P8822 - 000 - 024 - 0 - P  
A A A - B B B - C - D

P8822 ELGO standard with 24 V DC power supply, a signal input with channel A, B with a pegel 24 V and a counting frequency 20 kHz, with a \* PID analoge output (+/-10V) \* in preperation

Your order:

P8511  
P8721  
P8822 -          -          -    -

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Measure - Control - Position

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