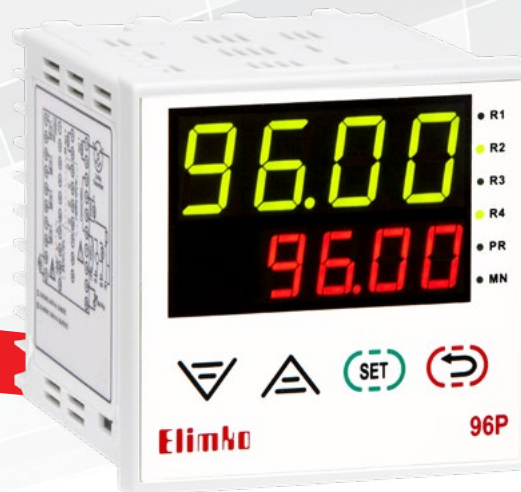




# E-96P SERIES

## UNIVERSAL ADVANCED DIGITAL CONTROLLERS



### DESCRIPTION

E-96P Series universal process controllers are industrial instruments with 96x96 mm IEC/TR 60668 dimensions designed using new generation microcontrollers with on/off, PID and other control modes, where inputs and outputs can be easily programmed by the user.

In E-96P Series controllers, the set value and measured value can be monitored from -1999 to 9999 on two 4-digit displays; general purpose inputs (T/C, R/T, mV, mA) can be programmed.

It is used in the measurement and control of temperature, pressure, level, speed, current, voltage, resistance and other physical units in all fields of industry; Plastics, Iron and Steel, Chemical, Metallurgy, Petro-Chemistry, Refineries, Food, Cement, Ceramics, Glass and other industries.

### STANDARD WORKING LIMITS

Inputs	Tip	Min.	Max.
Cu-Const	Tip-U*	-200°C	600°C
Cu-Const	Tip-T	-200°C	400°C
Fe-Const	Tip-L*	-200°C	850°C
Fe-Const	Tip-J	-200°C	1100°C
NiCr-Ni	Tip-K	-200°C	1300°C
Cr-Const	Tip-E	-200°C	1000°C
Nikrosil-Nisil	Tip-N	-200°C	1200°C
Pt%10Rh-Pt	Tip-S	0°C	1760°C
Pt%13Rh-Pt	Tip-R	0°C	1760°C
Pt%18Rh-Pt	Tip-B	60°C	1800°C
Pt-100	$\alpha=0.385$	-200°C	840°C
mV	0-1000 mV	-1999 unit	9999 unit
mA	0-20 mA/ 4-20 mA	-1999 unit	9999 unit

\* DIN 43710 standards, others conform to IEC 60584-1.  
E-96P Series instruments are general purpose and can be configured according to the application.

### TECHNICAL SPECIFICATIONS

Accuracy Class	0.5
Display Resolution	1/9999
Display	2x4 Digit LED (20 mm)
A/D Conversion	16 bit
D/A Conversion	12 bit
Reading Speed	2 readings/second
Input Resistance	T/C, mV $\geq 1 \text{ M}\Omega$ mA, $\leq 51 \Omega$
Noise Suppression	120 dB 50 Hz
Operating Temperature	-10 ... 55°C
T/C Temperature Comp	0 ... 50°C
Power Supply	85-265 V AC / 85-375 V DC 20-60 V AC / 20-85 V DC
Power Consumption	Max. 7 W
Relay Output	NA Contact 250 V AC 5 A
Input Signal	T/C, R/T, mA, mV
Sensors	Thermocouple Resistance thermometer Others= Standard and nonstandard transmitters and converters
Memory	EEPROM max. $10^5$ writing
Protection Class	Front panel IP66 (NEMA 4X) Rear Panel IP20
Weight	430 gr



- This controller complies with the European Low Voltage Directive 2006/95/EC, by the application of safety standard TS EN 61010-1. (Pollution degree 2).
- This controller complies with the EMC Directive 2004/108/EC, by the application of EMC standard TS EN 61326.

## FEATURES

Set Adjustment	Between set point limits
Contact Forms	Low (LO), High (HI), Lob, Hlb, Lod, Hld
Dead Band (Hysteresis)	0-999.9 (EU)*
Resolution	0.1 or 1
Proportional Band (Pb)	0.1-999.9 (EU)*

Integral Time (It)	0-3600 seconds (1 sec steps)
Derivative Time (Dt)	0-3600 seconds (1 sec steps)
Bias	% 0-100
Control Form	On / Off, PID
Control Outputs	0-20 mA, 4-20 mA, NA Contact, SSR

\*(EU) °C or °F for the thermocouples and resistance thermometer inputs, for the linear inputs, same with the unit which is controlled. Decimal point can be determined by parameter of dP.

## ORDERING GUIDE

E-96P Series Controllers

E- 96P - W - X - Y - Z

### Standard Features

- Programmable universal inputs
- 2 Relay Outputs, 3 Digital Inputs
- Auto - tune  
Configurable by the customer.
- Programmable universal outputs
- Transmitter power supply 24 V DC
- On - Off / PID Control Forms

### Relay Outputs

2 relays (RL1, RL2) .....	2
3 relays (RL1, RL2, RL3) .....	3
4 röle (RL1, RL2, RL3, RL4) .....	4
1 SSR (SSR1) + 1 relay (RL2) .....	5
1 SSR (SSR1) + 2 relays (RL2) .....	6
1 SSR (SSR1) + 3 relays (RL2) .....	7
2 SSR (SSR1, SSR2) + 1 relay (RL3) .....	8
2 SSR (SSR1, SSR2) + 2 relays (RL3, RL4) .....	9

### Analog Outputs

1 x 0-20 / 4-20 mA (AO1) .....	1
2 x 0-20 / 4-20 mA (AO1, AO2) * .....	2
1 x 0-10 V DC (AO1) .....	3
1 x 0-20 / 4-20 mA (AO1) + 1 x 0-10 V DC (AO2) .....	4
1 x 0-10 V DC (AO1, AO2) * .....	5

### Communication

None .....	0
RS485** .....	1

### Power Supply

85-265 V AC / 85-375 V DC .....	0
20-60 V AC / 20-85 V DC .....	1

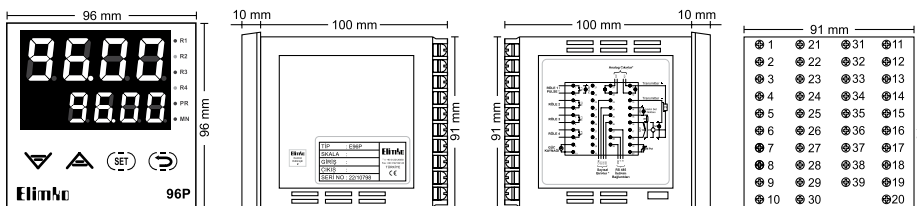
\* Analog outputs are isolated from each other.

\*\* When E-96P Series controllers are ordered with communication, the E-IB-II USB-RS485 converter can be used for PC connection. There are various control and monitoring software provided by Elimko.

### Example

E - 96P - 0 - 0 - 0 - 0	Standard feature, 220 V AC power supply.
E - 96P - 1 - 0 - 0 - 0	1 relay output, 220 V AC power supply.
E - 96P - 2 - 1 - 0 - 1	2 relay outputs, 1 analog output, 24 V DC power supply.

## DIMENSIONS



Panel cut - out = 92 x 92 mm



The company's policy is one of continuous product improvement. We reserve the right to modify the information contained herein without notice.



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