

E-200 SERIES UNIVERSAL-ADVANCED CONTROLLERS



DESCRIPTION

E-200 Series universal-advanced controllers are designed using new generation micro-controllers. Unit dimensions are 96x96mm, conforming to IEC 668. E-200 Series has a 2x4 digit LED display range from -1999 to 9999 and configurable universal inputs (R/T, T/C, mV, mA) with 16 bit resolution and ultra low calibration drifts with environmental conditions.

E-200 Series controllers have advanced programming facilities to provide different control forms and functions. E-200 Series are used at different fields of industry such as iron & steel, chemical, petrochemical plants, cement, metallurgy, refineries, glass, food, tyre, plastic, ceramic and others.

TECHNICAL SPECIFICATIONS

Accuracy Class	0.5
Display Resolution	1/9999
Display	2x4 Digit LED (14 mm)
A/D Conversion	16 bit
D/A Conversion	12 bit
Reading Speed	10 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
Temperature Comp.	0-50°C
Operating Voltage	85-265 V AC 85-375 V DC 20-60 V AC 20-85 V DC
Power Consumption	Max. 10 VA
Relay Output	SPST-NO 250 V AC 5A
Input Signal	T/C, R/T, mA, mV
Sensors	Thermocouple Resistance Thermometer Others = Standard and non-standard transmitters and converters
Transmitter Power Supply	24 V DC 25 mA
Memory	EEPROM max. 10^5 writing
Weight	430 gr

FEATURES

- Multi Control Set Points
- 3 Alarm Set Points
- 1 Analog Input: T/C, R/T, 0-20 mA, 4-20 mA, 0-50 mV, 0-1V
- 1 External Set Point Input: 0-20 mA, 4-20 mA
- 1 Motorised valve feedback input.
- 3 Digital Input: Potential free contacts. Auto/Man, Ext/Int, Set Point select
- 4 Relay Output: Contacts can be configured
- 2 Analog Output: Control output, re-transmission output can be configured.
- Transmitter Power Supply
- Communication Port: RS485 MODBUS
- Control Forms: On/Off, PID, Auto-manual station, Heat/Cool, Ratio station
- Auto Tuning

Set Adjustment	Between set point limits
Contact Forms	Low (LO), HIGH (HI), Lob, Hib, Lod, Hid
Dead Band (Hysteresis)	0-999.9 (EU)*
Proportional Band (Pb)	0.1-999.9 (EU)*
Integral Time(I _t)	0-3600 seconds
Derivative Time (D _t)	0-3600 seconds
Bias	0-100%
Control Outputs	0-20 mA, 4-20 mA, Relay Contact, pulse

* (EU) °C or °F for the thermocouples and resistance thermometer inputs, for the linear inputs, same with the unit which is controlled.

STANDARD WORKING LIMITS

Inputs	Type	Min.	Max.
Cu-Const	Type-U*	-200°C	600°C
Cu-Const	Type-T	-200°C	400°C
Fe-Const	Type-L*	-200°C	850°C
Fe-Const	Type-J	-200°C	1100°C
Cr-Al	Type-K	-200°C	1300°C
NiCr-Ni	Type-K	-200°C	1300°C
Cr-Const	Type-E	-200°C	1000°C
Nicrosil-Nisil	Type-N	-200°C	1200°C

Inputs	Type	Min.	Max.
Pt%10Rh-Pt	Type-S	0°C	1760°C
Pt%13Rh-Pt	Type-R	0°C	1760°C
Pt%18Rh-Pt	Type-B	60°C	1800°C
Pt-100	$\infty=0.385$	-200°C	840°C
mV	0-1000 mV	-1999 unit	9999 unit
mA	0-20/4-20 mA	-1999 unit	9999 unit

E-200 Series instruments are general purpose instruments and can be configured according to the application.

* DIN 43710 Standards, the others conform to IEC 584.

ORDERING GUIDE

E-200 Series Controllers

E-200 -W - X - Y - Z

Standard Features

- Programmable universal Inputs
 - 2 relay outputs
 - 3 digital inputs
 - Analog output
 - External set point
 - Motorised valve feedback input
 - Transmitter power supply
 - Heat / cool
 - Auto-tune
- Configurable by the customer

Relay Outputs

2 relays	2
3 relays	3
4 relays	4
1 relay + pulse voltage to drive SSR, 24 V/20 mA	5
2 relays + pulse voltage to drive SSR, 24 V/20 mA	6
3 relays + pulse voltage to drive SSR, 24 V/20 mA	7

Analog Outputs

1 analog output 0-20/4-20 mA (isolated)	1
2 analog outputs 0-20/4-20 mA (isolated)	2

Analog outputs are non-isolated from each other

Communication

None	0
RS485 Communication port	1

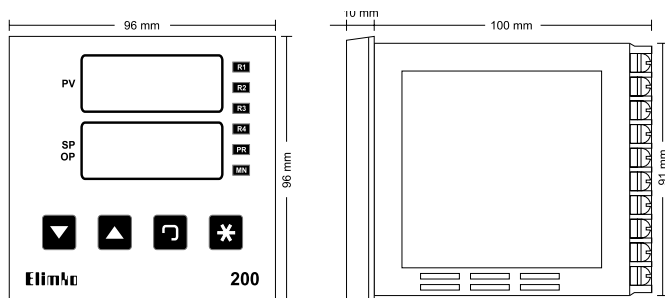
Power Supply

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

Examples

E-200-2-1-0-0	Standard features, 2 relays, 1 analog output, 220 V AC
E-200-2-1-1-0	Standard features, 2 relays, 1 analog output, RS485, 220 V AC
E-200-3-2-1-0	Standard features, 3 relays, 2 analog outputs, RS485, 220 V AC

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.