Elimko

ISO-9001

GOST

E-48 SERIES
DIGITAL INDICATING CONTROLLERS

DESCRIPTION

E-48 Series controllers are designed using new generation micro-controllers for on/off and PID control. The unit has dimensions of 48x48 mm, conforming IEC 668.

E-48 Series have a 2x4 digits LED display range between –1999 and +9999, configurable universal inputs (T/C, R/T, mV, mA) with 16 bit resolution, low calibration drifts with environmental conditions.

E-48 Series controllers have easy programming facilities to provide on/off and PID forms and are used in every field of industry for measurement and control of temperature, pressure, level, current, voltage, resistance and other process parameters in industries such as iron & steel, cement, plastic, chemistry, metallurgy, petrochemical plants, refineries, ceramic, glass and others.

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
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	∝=0.385	-200°C	840°C
mV	0–1000 mV	-1999 unit	9999 unit
mA	0–20 mA	-1999 unit	9999 unit

TECHNICAL SPECIFICATIONS

Accuracy Class	0.5
Display Resolution	1/9999
Display	2x4 Digit LED (7 mm)
A/D Conversion	16 bit
D/A Conversion	12 bit
Reading Speed	2 readings / second
Input Resistance	T/C, mV: ≥ 1 MΩ mA, : ≤ 51 Ω
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. 7 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
Memory	EEPROM max. 10^5 writing
Weight	155 gr

* DIN 43710 standards, others conform to IEC 584.
E-48 Series instruments are general purpose and can be configured according to the application.

FEATURES

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

Integral Time(It)	0–3600 seconds
Derivative Time (Dt)	0–3600 seconds
Bias	0–100%
Control Form	On/Off, PID
Control Outputs	0–20 mA, 4–20 mA, NO Contact, pulse

* (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-48 Series Controllers — E-48 -W- X - Y - Z

Standard Features

- Programmable universal inputs
- Programmable universal outputs
- Transmitter power supply 24 V DC
- Auto–tune

Configurable by the customer

Relay Outputs

None	0
1 relay 1x(NO-O)	1
2 relays 2x(NO-O)	2
Pulse voltage to drive SSR, 24 V/20 mA	3
Pulse voltage to drive SSR, 24 V/20 mA + 1 relay 1x(NO-O)	4

Analog Outputs

None	0
*0–20 mA / 4–20 mA (non–isolated)	1

Communication

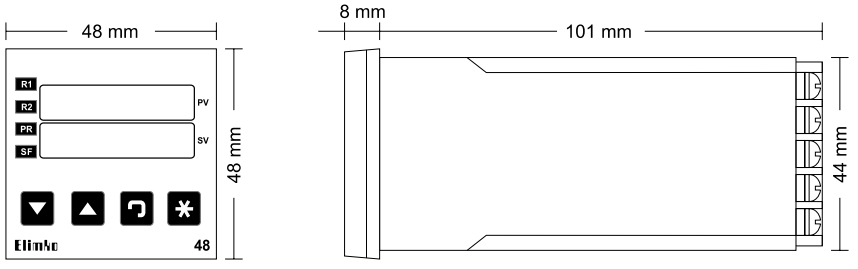
None	0
*RS485 Communication port	1

Power Supply

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

* RS485 ModBus output is not available if analog output is (0–20 mA / 4–20 mA) selected.

DIMENSIONS



Panel cut-out = 45 x 45 mm

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