

Digital Valve Positioner

REX-EP4

Digital Valve Position Indicator

REX-AP4



General Description

One of the ways to control temperature is by indirectly controlling water, steam, or oil. In such an application, a motorized valve is used to control the flow of water, steam or oil to adjust the temperature. For this type of application, a controller with position proportioning action ("Y" or "Z" control action) must be used.

The REX-EP4 has been developed to solve such an applications. The REX-EP4 receives a DC current signal (0 to 20mA or 4 to 20mA) from a controller and converts it into a relay contact signal to drive a control motor.

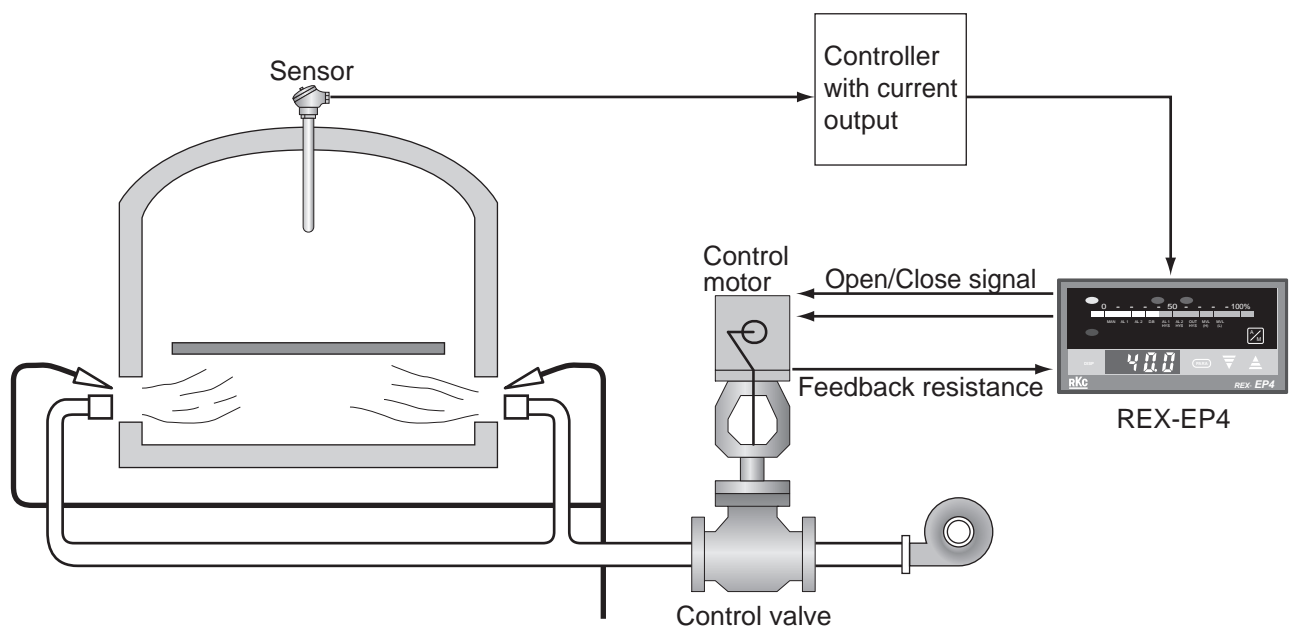
With REX-EP4, any controllers with current output can be used for this application.

If you already use a controller with position proportioning action and want to know the valve position quickly and precisely , the REX-AP4 is the solution. The REX-AP4 is the valve position indicator showing valve position using a bar-graph.

Features

- ☆ At-a-glance monitoring of valve position by 12-segment LED bar-graph and accurate reading on digital display unit.
- ☆ Valve position or input signal from a controller (%) is shown in numeric.
- ☆ Optional two configurable alarms.
- ☆ Auto/Manual selection (REX-EP4 only).
- ☆ Output limiter function (REX-EP4 only).

Example



Specifications

Inputs

Input

- a) DC current : 0 to 20mA, 4 to 20mA
 - Input break action : Down-scale (Uncertain for 0 to 20mA)
- b) DC voltage : 0 to 5V, 0 to 10V, 1 to 5V
 - Only REX-AP4
 - Input break action : Down scale

Feedback resistance input

- 135Ω as standard (from a 3-terminal potentiometer)
- Other feedback resistance is also available

Sampling time

- REX-EP4 : 0.2 sec
- REX-AP4 : 0.1 sec

Performance

Display accuracy

Within $\pm 0.5\%$ of display range

Display method

- Bar-graph : 12 segments (Yellow)
- 7 segments LED : 4 digits (Green)

Insulation resistance

- More than $20M\Omega$ (500V DC) between measured and ground terminals
- More than $20M\Omega$ (500V DC) between power and ground terminals

Dielectric strength

- 1000V AC for one minute between measured and ground terminals
- 1500V AC for one minute between power and ground terminals

Control (Only REX-EP4)

Major setting range

- Valve position : 0.0 to 100.0%
- Deadband : 0.1 to 20.0%
- Differential gap : 0.1 to 20.0%
- Output limiter high : 0.0 to +100.0%
- Output limiter low : 0.0 to +100.0%

Control output

Relay output (Open/Close), Form A contact, 250V AC 3A (Resistive load)

Alarms (Optional)

Alarm

- a) Number of alarm : 2 points
- b) Alarm action : High or Low

Alarm output

Relay output, Form A contact 250V AC 1A (Resistive load)

General specifications

External dimensions (W x H x D)

96 x 48 x 100mm

Supply voltage

90 to 264V AC (Including supply voltage variation)
[Rating : 100 to 240V AC] (50/60Hz common)

Power consumption

Less than 13VA (100 to 240V AC)

Effect by power failure

Not affected by the failure of 20m sec. or less.

Operating environments

0 to 50°C [32 to 122°F] , 45 to 85% RH

Memory backup

Non-volatile memory

Net weight

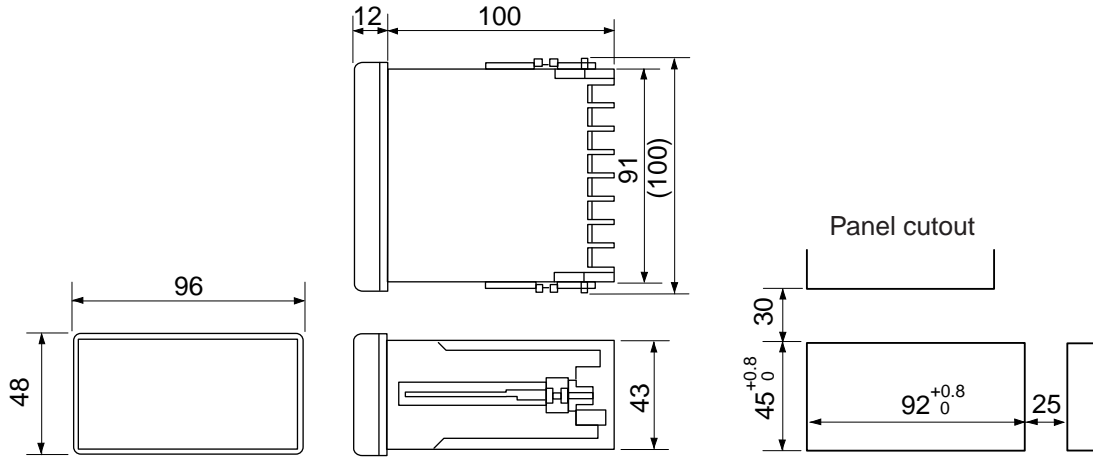
Approx. 280g



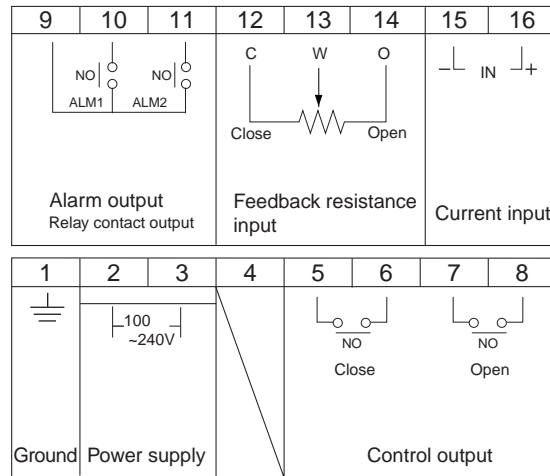
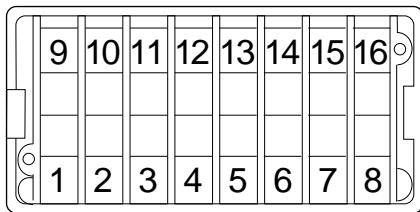
External Dimensions and Rear Terminals

REX-EP4/AP4

Unit : mm



REX-EP4



REX-AP4

