



## REX-AC110/410

## REX-DP110/410



### General Description

The REX-AC110/410 Digital Indicator series come in 1/16 and 1/8 DIN sizes. This series has up to 3 user programmable alarms in a 1/16 DIN or 4 alarms in the 1/8 DIN package, including an alarm interlock. The alarm interlock works like a high limit device. It features dual displays for easy programming and has an option for monitoring multiple inputs. The REX-AC110/410 match the physical appearance of the Century series controllers (REX-C100/C400/C410/C700/C900) and blend well into a panel.

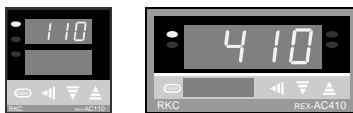
The REX-DP110/410 Digital Indicators are economical priced and used where alarms are not needed. They also match the Century series controllers in appearance.

### Features

- ☆ Cost effective
- ☆ Up to 4 alarms available
- ☆ Alarm interlock
- ☆ Can monitor multiple channels, using SP-4
- ☆ Colors match Century series controllers

#### Two Sizes 1/16 DIN, 1/8 DIN

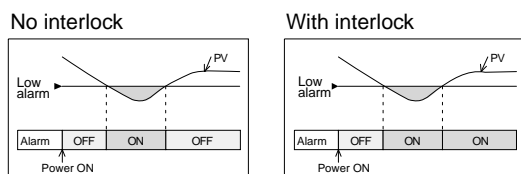
Two package sizes are available for both REX-AC and REX-DP Series.



#### Alarm Interlock (Latch) Function

(REX-AC Series : Optional)

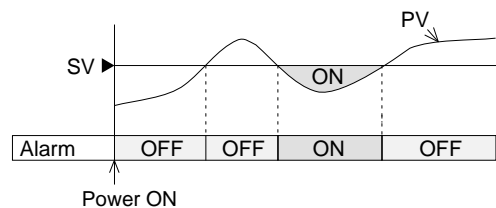
An optional alarm interlock (latched) function is available for the REX-AC110/410. This function retains the alarm status until the interlock is reset, via front panel operation.



#### Alarm Function (REX-AC Series : Optional)

Up to 4 alarms are available for the REX-AC410 (3 alarms for REX-AC110). Upon start-up, alarm action can be suppressed by the alarm hold function until the process value has entered the non-alarm range.

Example : Low alarm with hold



#### Easy Set-up

(REX-AC Series)

The use of the independent second LED display for setting has improved the operability of REX-AC110/410.



# Panel Mounting Type Indicator REX-AC/DP Series

## Specifications

### Input

#### <REX-AC Series>

##### Input

- a) Thermocouple : K, J, R, S, B, E, T, N (JIS/IEC), PLII (NBS)  
W5Re/W26Re (ASTM), U, L (DIN)
- Influence of external resistance : Approx. 0.4 $\mu$ V/ $\Omega$
  - Input break action : Up-scale
- b) RTD : Pt100 (JIS/IEC), JPt100 (JIS)
- Influence of lead resistance : Approx. less than 10 $\Omega$
  - Input break action : Up-scale
- c) DC voltage input : 0 to 5V DC, 1 to 5V DC
- d) DC current input : 0 to 20mA DC, 4 to 20mA DC
- Input break action : Down-scale

##### Sampling Time

0.5 sec

##### PV Bias

Temperature input : -1999 (-199.9) to 9999 (999.9) $^{\circ}$ C [ $^{\circ}$ F]  
DC voltage, DC current : -1999 to 9999  
(The decimal point position is same as PV)

#### <REX-DP Series>

##### Input

- a) Thermocouple : K, J, R, S, B, E, T, N (JIS/IEC), PLII (NBS)  
W5Re/W26Re (ASTM), U, L (DIN)
- Influence of external resistance : Approx. 0.4 $\mu$ V/ $\Omega$
  - Input break action : Up-scale
- b) RTD : Pt100 (JIS/IEC), JPt100 (JIS)
- Influence of lead resistance : Approx. less than 10 $\Omega$
  - Input break action : Up-scale

##### Sampling Time

0.5 sec

### Performance

#### <REX-AC Series>

##### Measuring Accuracy

- a) Thermocouple  
 $\pm$  (0.5% of PV + 1 digit) or  $\pm$ 3 $^{\circ}$ C (6 $^{\circ}$ F) whichever is larger
- Accuracy is not guaranteed between 0 and 399 $^{\circ}$ C (0 and 799 $^{\circ}$ F) for type R, S and B inputs.
- b) RTD  
 $\pm$  (0.5% of PV + 1 digit) or  $\pm$ 0.8 $^{\circ}$ C (1.6 $^{\circ}$ F) whichever is larger
- c) DC voltage and DC current  
 $\pm$  (0.5% of span + 1 digit)

#### <REX-DP Series>

##### Measuring Accuracy

- a) Thermocouple  
 $\pm$  (0.5% of PV + 1 digit) or  $\pm$ 3 $^{\circ}$ C (6 $^{\circ}$ F) whichever is larger
- Accuracy is not guaranteed between 0 and 399 $^{\circ}$ C (0 and 799 $^{\circ}$ F) for type R, S and B inputs.
- b) RTD  
 $\pm$  (0.5% of PV + 1 digit) or  $\pm$ 0.8 $^{\circ}$ C (1.6 $^{\circ}$ F) whichever is larger

#### <Common spec.>

##### Insulation Resistance

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

##### Dielectric Strength

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

### Alarms (REX-AC series) (Optional)

#### <REX-AC Series only>

##### Alarm Function

- a) Number of alarms : Up to 4 points  
(Up to 3 points in case of REX-AC110)
- b) Alarm action : Process (high, low)
- Alarm hold function is available.
  - Alarm interlock is available.
- c) Alarm differential gap : 0 to 100 $^{\circ}$ C ( $^{\circ}$ F), 0.0 to 100.0 $^{\circ}$ C ( $^{\circ}$ F)  
or 0.0 to 100.0% of span

##### Alarm Output

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

### General specifications

#### Supply Voltage

- a) 90 to 264V AC (Including supply voltage variation)  
[Rating : 100 to 240V AC] (50/60Hz common)
- b) 21.6 to 26.4V AC (Including supply voltage variation)  
[Rating : 24V AC] (50/60Hz common)
- c) 21.6 to 26.4V DC (Ripple rate 10% p-p or less)  
[Rating : 24V DC]

#### Power Consumption

##### <REX-AC Series>

Less than 10VA (100 to 240V AC)  
Less than 4.0VA (24V AC)  
Less than 120mA (24V DC)

##### <REX-DP Series>

Less than 6VA (100 to 240V AC)  
Less than 2.0VA (24V AC)  
Less than 50mA (24V DC)

#### Power Failure Effect

A power failure of 20msec or less will not affect the action.

#### Operating Environments : 0 to 50 $^{\circ}$ C [32 to 122 $^{\circ}$ F] , 45 to 85% RH

#### Memory Backup : Non-volatile memory.

#### Net Weight

REX-AC/DP110 : Approx. 140g  
REX-AC/DP410 : Approx. 260g

#### External Dimensions (W x H x D)

- a) REX-AC/DP110 : 48 x 48 x 100mm  
b) REX-AC/DP410 : 96 x 48 x 100mm

### SP-4 input selector unit

#### Input

Thermocouples K, J, R, S, B, E, T, N and RTD Pt100, JPt100  
Voltage and Current inputs.

#### Number of Inputs

Thermocouple, voltage/current : 6 points (4 points with transfer switch function)  
RTD : 3 points (2 points with transfer switch function)

- SP-4 with transfer switch function is used when more than one SP-4 units are connected.

#### Display

24VDC of the power supply is required for LED lamps.

#### Performance of Switch

Switching life: 30,000 times  
(at the operation speed of 70mm/sec).

Contact resistance: 15 m $\Omega$  (initially), and less than 40 $\Omega$  after 30,000 switching operations.

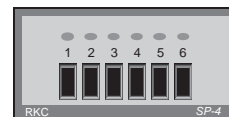
Switching timing : Non-shooting

Switching force: Less than 800g, within  $\pm$ 30% of initial value after 30,000 switching operations.

#### Operating Environments : 0 to 50 $^{\circ}$ C [32 to 122 $^{\circ}$ F] , 45 to 85% RH

#### Net Weight

Approx. 300g



#### Model and Suffix Code Table

Specifications	Model and Suffix Code		
Model	SP-4	<input type="checkbox"/>	<input type="checkbox"/> * <input type="checkbox"/>
Input	Thermocouple	<input type="checkbox"/>	
	CK : K, CJ : J, CR : R, CS : S CB : B, CE : E, CT : T, CN : N		
	RTD DC voltage, current	R V	
TF (Transfer switch) function	None		N
	With TF (Transfer switch)		T
Type	Horizontal type		1
	Vertical type		2

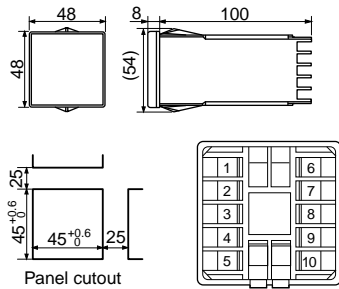


# Panel Mounting Type Indicator REX-AC/DP Series

## External Dimensions and Rear Terminals

< REX-AC110 >

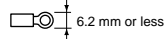
Unit : mm



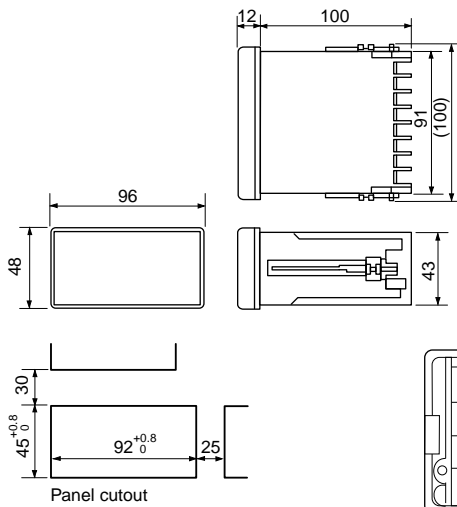
No.	Description
1	Alarm output
2	
3	Relay contact output
4	
5	Alarm 3

No.	Description
6	Power supply
7	
8	Measured input (1) Thermocouple (2) RTD (3) Voltage/Current
9	
10	

• Use 6.2mm or less solderless terminal.



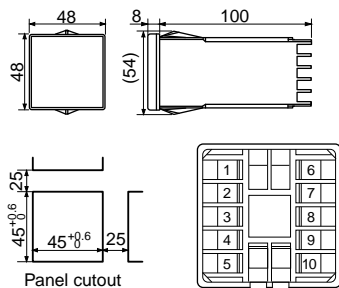
< REX-AC410 >



9	10	11	12	13	14	15	16
NO	NO				TC		
ALM1	ALM2				RTD		
Alarm output Relay contact output					Measured input		

1	2	3	4	5	6	7	8
Ground	AC	AC					
	100	~240V					
	AC	24V					
	DC	24V					
	+	24V	-				
Power supply				Alarm output Relay contact output			

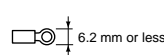
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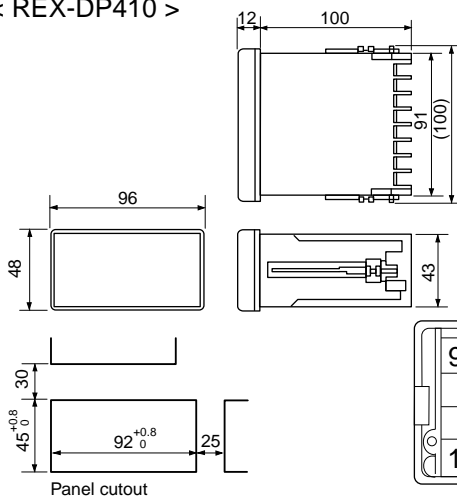
No.	Description
1	
2	
3	
4	
5	

No.	Description
6	Power supply
7	
8	Measured input (1) Thermocouple (2) RTD
9	
10	

• Use 6.2mm or less solderless terminal.



< REX-DP410 >



9	10	11	12	13	14	15	16
					TC		
					RTD		
					Measured input		

1	2	3	4	5	6	7	8
Ground	AC	AC					
	100	~240V					
	AC	24V					
	DC	24V					
	+	24V	-				
Power supply							