



LT series

DIGITAL INDICATING CONTROLLERS

Wide variation of sizes from 48x24mm to 96x96mm with abundant functions!!



High function type with 5-digit display of measured value
New overshoot suppression function
"JyroNavi"

General type with simple operation
New overshoot suppression function



LT450



LT470



LT350



LT370

Models LT450 and LT470 digital indicating controllers feature all functions, which are necessary for various control applications, including newly developed PID algorithms and a learning type overshoot suppression function "JyroNavi".

- Easy view and simple operation by large LED displays and large switches
- Universal input of thermocouples, resistance thermometers and DC voltage/current
- MODBUS communications protocol
- Front panel with 7mm thickness
- Conformance to CE, UL and CSA(UL, CSA: approval pending)
- Front panel conforming to NEMA4X(IP66) water and dust protection (option)

■ Main Specifications

Input signal : DC voltage...0 to 20mV, 0 to 5V, 0 to 10V
DC current...4 to 20mA (By adding a shunt resistor externally)
Thermocouple...B, R, S, N, K, E, J, T, U, L, WRe5-WRe26, W-WRe26, PtRh40-PtRh20, Platinel II
Resistance Thermometer...Pt100, JPt100

Accuracy rating : $\pm 0.1\%$ of scale range ± 1 digit
(At the reference operation conditions, Reference junction compensating accuracy is excluded for thermocouple input.)

Reference junction compensating accuracy : $\pm 1.0^\circ\text{C}$ ($23^\circ\text{C} \pm 10^\circ\text{C}$), $\pm 2.0^\circ\text{C}$ (-10 to 50°C)

Sampling cycle : Approx. 0.2 second

Control system : PID system (2-position control is available.)

Output type : On-off pulse, SSR-drive pulse, current output, on-off servo, voltage output, multiple control output (on-off pulse, SSR-drive pulse, current output)

Auto-tuning : Standard (Manual setting of PID constants is possible.)

Overshoot suppression function : On/off selectable

Control action : Direct or reverse action

Output signal : On-off pulse...On-off pulse conductive signal
SSR-drive pulse...DC voltage pulse signal
Current output...4 to 20mA DC
On-off servo...On-off servo conductive signal
Voltage output...0 to 10V DC

Rated supply voltage : 100 to 240V AC, 50/60Hz
Working temperature range : -10 to 50°C
Working humidity range : 20 to 90%RH (No dew condensation)
Power consumption : Max. 16VA
Weight : LT450...Max. 350 g
LT470...Max. 500 g

Models LT350 and LT370 digital indicating controllers feature all functions, which are necessary for various control applications, including newly developed PID algorithms and an overshoot suppression function.

- Easy view and simple operation by large LED displays and large switches
- Universal input of thermocouples, resistance thermometers and DC voltage/current
- MODBUS communications protocol
- Front panel with 7mm thickness
- Conformance to CE, UL and CSA(UL, CSA : approval pending)
- Front panel conforming to NEMA4X(IP66) water and dust protection (option)

■ Main Specifications

Input signal : DC voltage...0 to 5V
DC current...4 to 20mA (By adding a shunt resistor externally)
Thermocouple...B, R, S, N, K, E, J, T, U, L, Resistance Thermometer...Pt100, JPt100

Accuracy rating : $\pm 0.25\%$ of scale range ± 1 digit
(At the reference operation conditions, Reference junction compensating accuracy is excluded for thermocouple input.)

Reference junction compensating accuracy : $\pm 1.0^\circ\text{C}$ ($23^\circ\text{C} \pm 10^\circ\text{C}$), $\pm 2.0^\circ\text{C}$ (-10 to 50°C)

Sampling cycle : Approx. 0.5 second

Control system : PID system (2-position control is available.)

Output type : On-off pulse, SSR-drive pulse, current output, voltage output

Auto-tuning : Standard (Manual setting of PID constants is possible.)

Overshoot suppression function : On/off selectable

Control action : Direct or reverse action

Output signal : On-off pulse...On-off pulse conductive signal
SSR-drive pulse...DC voltage pulse signal
Current output 4 to 20mA DC
Voltage output 0 to 10V DC

Rated supply voltage : 100 to 240V AC, 50/60Hz (24V DC, option)
Working temperature range : -10 to 50°C
Working humidity range : 20 to 90%RH (No dew condensation)
Power consumption : Max. 14VA
Weight : LT350...Max. 350 g
LT370...Max. 450 g

Small general type with 4-digit display of measured value
New overshoot suppression function



LT230

Compact size for assembling in various type of equipment
PID auto-tuning function



LT110

Models LT230 digital indicating controllers feature many functions including newly developed PID algorithms and an overshoot suppression function.

- Universal input of thermocouples, resistance thermometers and DC voltage/current
- MODBUS communications protocol
- Front panel with 7mm thickness
- Conformance to CE, UL and CSA(UL, CSA : approval pending)
- Front panel conforming to NEMA4X(IP66) water and dust protection (option)

■ Main Specifications

Input signal : DC voltage... 0 to 5V
 DC current... 4 to 20mA (By adding a shunt resistor externally)
 Thermocouple... B, R, S, N, K, E, J, T, U, L,
 Resistance thermometer ... Pt100, JPt100

Accuracy rating : $\pm 0.25\%$ of scale range ± 1 digit
 (At the reference operation conditions, Reference junction compensating accuracy is excluded for thermocouple input.)

Reference junction compensating accuracy :
 $\pm 1.0^\circ\text{C}$ ($23^\circ\text{C} \pm 10^\circ\text{C}$), $\pm 2.0^\circ\text{C}$ (-10 to 50°C)

Sampling cycle : Approx. 0.5 second

Control system : PID system(2-position is available.)

Output type : On-off pulse, SSR-drive pulse, current output, voltage output

Auto-tuning : Standard(Manual setting of PID constants is possible.)

Overshoot suppression function : On/off selectable

Control action : Direct or reverse action

Output signal : On-off pulse On-off pulse conductive signal
 SSR-drive pulse... DC voltage pulse signal
 Current output... 4 to 20mA DC
 Voltage output... 0 to 10V DC

Rated supply voltage : 100 to 240V AC, 50/60Hz (24V DC, option)

Working temperature range : -10 to 50°C

Working humidity range : 20 to 90%RH(No dew condensation)

Power consumption : Max. 8VA

Weight : Approx. 200 g

Model LT110 digital indicating controllers feature many functions including PID auto-tuning function for various control applications in the compact size of 48x24mm.

- Compact, lightweight and space-saving type for downsizing equipment or panel board
- Multi-input of thermocouples and resistance thermometers
- Conformance to CE
- Front panel conforming to IP65(IEC)water and dust protection

■ Main Specifications

Input signal : Thermocouple... K, J, E, N, Platinel II
 Resistance Thermometer... Pt100, JPt100

Accuracy rating : Thermocouple... $\pm 0.3\%$ of scale range ± 1 digit or $\pm 2^\circ\text{C}$, whichever larger
 Resistance thermometer... $\pm 0.2\%$ of scale range ± 1 digit

Sampling cycle : Approx. 0.25 second

Control system : PID system (2-position is available.)

Output type : On-off pulse, SSR-drive pulse, current output

Auto tuning : Standard (Manual setting of PID constants is possible.)

Output signal : On-off pulse ... On-off pulse conductive signal
 SSR-drive pulse ... DC voltage pulse signal
 Current output ... 4 to 20mA DC

Alarm points : 1 point

Alarm system : Absolute value alarm, Deviation alarm

Rated supply voltage : 100 to 240V AC, 50/60Hz

Working temperature range : 0 to 50°C

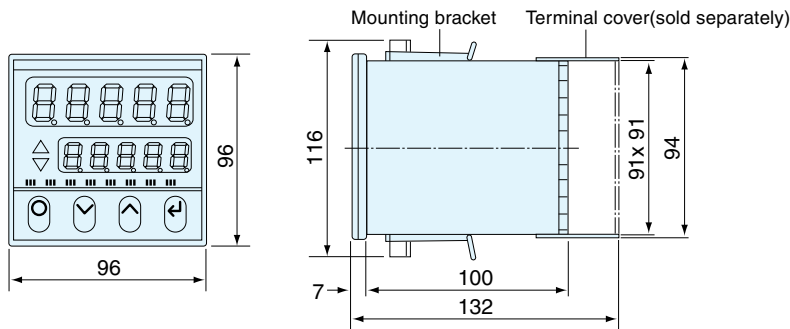
Working humidity range : 35 to 85%RH (No dew condensation)

Power consumption : Max. 5VA

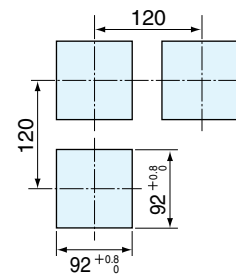
Weight : Approx. 100 g

EXTERNAL DIMENSIONS

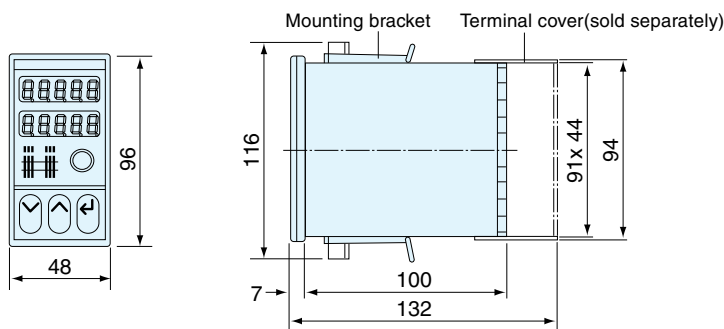
● LT470, LT370



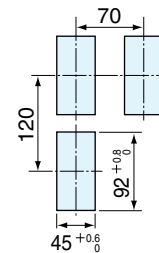
● Panel cutout



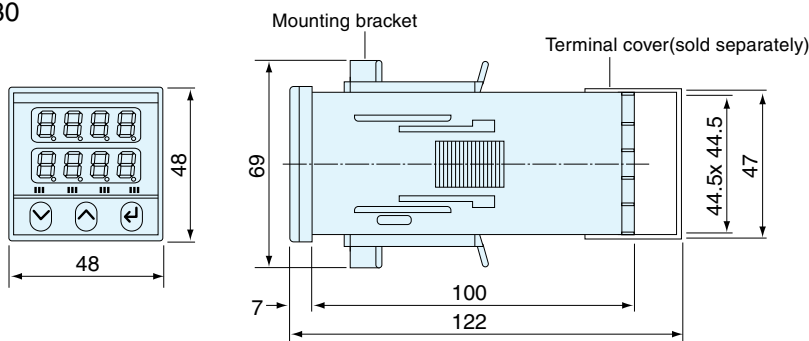
● LT450, LT350



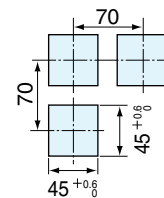
● Panel cutout



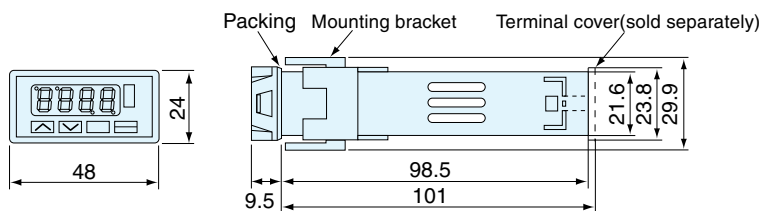
● LT230



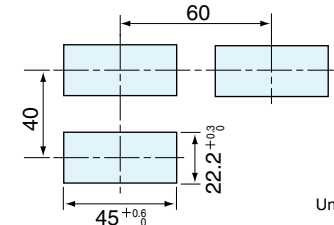
● Panel cutout



● LT110



● Panel cutout



Unit : mm

*Specifications subject to change without notice.