Universal Control Unit LCB is a controller that is designed for centralized lubrication system's control. It is widely used in injection lubrication system's control for machinery and equipment like conveyor belt and escalator etc.

LCB realizes complicated injection lubrication control at low costs. It owns excellent price-performance ratio.

## **Powerful function**

## • Suitable for two types of lubrication pumps

LCB can control injection lubrication of electromagnetic pump type and air pump type. Pump's working parameters can be detailed setup to meet different lubrication needs.

#### • Two control modes available

CONTACT and PAUSE can separate be set as chain's signal COUNTER control mode or TIMER control mode, and these two modes also can be combined at will to meet complicated control needs.

In counter control mode, LCB can follow chain movement to realize exact lubrication. In timer control mode, it realizes the simplest system lubrication function. Timer mode is also suitable for applications that sensors are not easy to install.

### • Precise control parameters programmable capability

Lubrication parameters can be exactly adjusted. This ensures users' equipment get sufficient lubrication based on saving lubricant.

## • Pitch adjustment function

Pitch adjustment function allows pump inject oil once every "N" sensor pulses to adapt to high speed chain lubrication.

#### ♦ Memory function

When using computer to command and set LCB, it can memory the operating status at the point of power-off. When power is supplied again, it will carry out operation from where it stopped, which ensures lubrication's continuous correct.

#### • System monitoring function

LCB monitors lubricant level, this guarantees long-term reliable auto-lubrication of the lubrication system. When lubrication system occurs failure of lack of oil, LCB gives alarm immediately.

## **Easy operation**

#### • Two methods to program (set) LCB

LCB can be connected to computer and to program those control parameters with the help of computer. Or use set-switches of LCB itself to set and control lubrication system. When it is connected to computer, user can use special software to realize exact and complicated control programming, then LCB performs offline according to the settings.

But it is also convenient to adjust and control lubrication system with set-switches of LCB itself.

To change between the two methods, user only needs to switch a DIP switch on LCB.

### ♦ Status indicating function

Dual-color indicator lights show the operating status of system.

## Good adaptivity to complicated application environment

#### • Can work under a complicated power supply condition

LCB can properly work in a wide voltage range. The surge, sink, brief interruption and superposed strong interference of the power supply will not negative influence on LCB. Therefore, it is especially suitable for applications of industry situation.

#### • Excellent acclimatization.

Can work in a wide temperature range from -40  $^\circ C$  to 80  $^\circ C$  . All-Solid State design makes it can work under a severe vibration condition.

#### • Can work steadily in severe electromagnetic noise environment.

Aborative electromagnetic compatibility (EMC) design enables LCB can work reliable in complicated electromagnetic environment and does not bring out harmful electromagnetic noises. The main circuit of LCB is designed with 6 levels filter, multi-level protections to keep within limits of electromagnetic noise's interference to controller.

## **High reliability**

◆ LCB is designed complying with industrial application standard. It can reliable work continuously at 100% high load.

♦ Control modes and parameters are stored in EEPROM. The data can be stored for a long time without backup power support.

♦ Main electronic components are all Industrial level and high-temperature ageing and stability treated, which ensure the reliability of the complete control unit.

• SMT manufacturing technique with reinforcement treatment enables LCB can work stably even under severe vibration condition.

• Under computer command and set mode, LCB has a 4-digit password to prevent programmed parameters being changed accidentally.

# **Technical Specification**

Rated working voltage	220V AC
Voltage range	180V~240V
Max. Load output	3A
Data storage	No limitation
Working temperature	-40°C~ +80°C
Recommended Fuse spec.	4A
Installation dimensions L×W×H	90mm×70mm×35mm
Programmable contact time	1s~65535s
Programmable contact impulses	1~65535
Programmable pause time	1min~99999min
Programmable pause impulses	1~99999999
EM pump's electrifying time range	0.01s~2s
EM pump's electrifying cycle range	0.01s~2.55s
Programmable pitch adjustment scope	1:1~199:1

\* For technical improvement reason, we may update our product's Technical Specification at any time without prior notice.



# Installation dimensions